

A Proposal for the Protection of Digital Databases in Sri Lanka

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as a thesis for the degree of

Doctor of Philosophy in Law

in July 2013

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ABSTRACT

Economic development in Sri Lanka has relied heavily on foreign and domestic investment. Digital databases are a new and attractive area for this investment. This thesis argues that investment needs protection and this is crucial to attract future investment. The thesis therefore proposes a digital database protection mechanism with a view to attracting investment in digital databases to Sri Lanka.

The research examines various existing protection measures whilst mainly focusing on the *sui generis* right protection which confirms the protection of qualitative and/or quantitative substantial investment in the obtaining, verification or presentation of the contents of digital databases. In digital databases, this process is carried out by computer programs which establish meaningful and useful data patterns through their data mining process, and subsequently use those patterns in Knowledge Discovery within database processes. Those processes enhance the value and/or usefulness of the data/information. Computer programs need to be protected, as this thesis proposes, by virtue of patent protection because the process carried out by computer programs is that of a technical process - an area for which patents are particularly suitable for the purpose of protecting.

All intellectual property concepts under the existing mechanisms address the issue of investment in databases in different ways. These include Copyright, Contract, Unfair Competition law and Misappropriation and *Sui generis* right protection. Since the primary objective of the thesis is to introduce a protection system for encouraging qualitative and quantitative investment in digital databases in Sri Lanka, this thesis suggests a set of mechanisms and rights which comprises of existing intellectual protection mechanisms for databases.

The ultimate goal of the proposed protection mechanisms and rights is to improve the laws pertaining to the protection of digital databases in Sri Lanka in order to attract investment, to protect the rights and duties of the digital database users and owners/authors and, eventually, to bring positive economic effects to the country. Since digital database protection is a new concept in the Sri Lankan legal context, this research will provide guidelines for policy-makers, judges and lawyers in Sri Lanka and throughout the South Asian region.

The law is correct as on 20th July 2013

ACKNOWLEDGEMENTS

What I was taught during my LLM in Computer & Communications Law at Queen Mary, University of London and the lectures given by Prof. Chris Reed and Prof. Ian Walden motivated and inspired me to do a PhD in Digital Database Protection/Computer Law.

Whilst I selected, by my own reasoning, the renowned University of Exeter/UK, the university appointed the most appropriate IP/IT expert as my lead supervisor- Dr. James GH Griffin. I am particularly grateful for his wonderful guidance, support and unending kindness. If it were not for him, this research would not have become a reality so I have no hesitation in describing Dr. Griffin as the best example of a lead supervisor.

My second supervisor Dr. Naomi Hawkins and my mentor, Dr. Frederic Rolland helped me throughout the PhD process. Ms Sarah Roberts, the Department's Administrator, supported for getting through the proceedings of International Conferences where I took part around the world. I thank them all.

Special thanks are due to the thesis internal examiner Prof. Rob Merkin who is Lloyd's Professor of Commercial Law, and the external examiner Mr Stephen Mason/Barrister and General Editor, *Electronic Evidence*, for their profound examining and invaluable comments.

I am greatly indebted to Dr. Asoka Silva, Head-Legal Studies/OUSL, who shouldered all the hard work concerning my scholarships in postgraduate studies and continuously offered me encouragement in difficult times.

I owe an extra special thank you to Prof. Laksiri Fernando and his NCAS/Sri Lanka staff for their kind understanding and generosity in offering me a part scholarship for my PhD research.

The endless editing process was eventually ended because of the endless helping hands of Dr. George Cumming/Barrister; Dr. Anusha Wickramasinghe; Dinusha Jayanetti/AAL; Nishadi R Thennakoon/AAL; Nalaka Illangaratne/AAL; Dr. Eng. Saman Ilankoon; Mr Benedict Saparamadu; Mr Sanath Jayalath; Mr I Ranjith and Mr Nicholas Cleary.

While NCAS and OUSL offered me a part scholarship for my studies, Thusitha Siriwardana/AAL, DM Dissanayake/AAL and Indika Jayaweera/AAL provided a life line for the said scholarship's proceedings in my absence. Dilojan Pushpakumara/AAL helped to find out living comfort in the United Kingdom. Dr. Balakrishna Sridharan's advice assisted me at critical points of my thesis drafting. I owe an extra thanks to them.

I offer my greatest thanks to my parents and my only sister. My father, Mr Nelson Abeysekera, and my mother, Mrs Soma Abeysekera, provided most of the financial backing in addition to their deep love and affection which took a huge stress off my mind. Without the efforts of my sister, Ms Udeshika Nelani Abeysekera, this thesis would not have been a success. My fiancée, Sewwandika Wijesinghe/AAL, encouraged me a great deal while she patiently waited while I reached this stage in my studies.

My thanks go to all the staff of the IALS/London where I spent more than six years since the first day of my LLM studies.

CONTENTS

ABSTRACT.....	2
ACKNOWLEDGEMENTS	3
CONTENTS	4
CHAPTER 1.....	10
INTRODUCTION.....	10
1.1. Background.....	10
1.1.1. The Problem	12
1.1.2. Types of Databases	14
1.1.3. Definition of a database	17
1.1.4. Reasons for a research into digital database protection	22
1.2. Methodology	31
1.2.1. Using economics as an approach to the concept of “property”	34
1.2.2. Investment in making a database.....	37
1.3. Arguments.....	40
1.4. Chapter outline.....	44
1.5. Ways that digital databases enhance the ‘value and/or usefulness’ of data.....	52
1.6. The role of investment in database protection.....	61
1.6.1. The broad context of the problem	61
1.6.2. Link between protection and investment.....	64
1.6.3. Possible reasons for a lack of investment.....	71
1.6.4. Reasons for legal protection	71
1.6.5. Previous research carried out in this area	72
1.6.5.1. Issues that have not been considered in previous research	77
1.6.5.2. Novel aspects of this thesis	77
1.6.6. Reasons for choosing Sri Lanka	78
1.7. Importance of “ <i>sui generis</i> ” right protection and link with investment.....	79
1.8. Overview	81

CHAPTER 2.....	83
PROTECTION OF DIGITAL DATABASES BY COPYRIGHT LAW	83
2.1. Introduction.....	83
2.2. The history of copyright.....	88
2.3. Tables, Compilations and databases under Copyright Law	96
2.4. The underlying computer program – issues of originality	102
2.4.1. Originality of computer programs in digital databases	110
2.4.2. European Union view of originality	112
2.5. Authorship of the underlying computer program	121
2.5.1. Computer-generated works underlying the database.....	126
2.5.2. Computer-assisted works.....	128
2.5.3. Copyright law practice in Sri Lanka	131
2.5.4. Originality	132
2.5.5. Compilation	134
2.5.6. Computer programs.....	136
2.5.7. Authorship.....	137
2.6. Concluding comments	141
CHAPTER 3.....	146
PATENT PROTECTION OF DIGITAL DATABASES	146
3.1. Introduction.....	146
3.1.1. US, EU and UK approaches.....	148
3.2. Origin of the patent protection issue	150
3.3. The nature of a computer program and its relevance to the proposed system	158
3.4. Patents in the proposed system	162
3.5. Ways that patents add value to databases	166
3.6. Rationale for patent protection of computer programs in digital databases	172
3.6.1. New and non-obviousness of computer programs in digital databases.....	176
3.6.2. Inventive step	179
3.6.3. Industrial applicability.....	181

3.7. “As such” exclusion.....	186
3.8. Scope of “as such” application to the proposed system.....	188
3.8.1. Further technical effect.....	191
3.8.2. Meaning of the term technical and its relevance to the proposed system	194
3.9. Utility patents	197
3.9.1. Way that the utility patent fits into the proposed system.....	198
3.10. Infringement.....	201
3.10.1. <i>Direct infringement</i>	202
3.10.2. <i>Indirect infringement</i>	203
3.11. Concluding comments.....	205
CHAPTER 4.....	210
CONTRACT	210
4.1. Introduction.....	210
4.1.1. Identification of the contracts under the thesis.....	214
4.2. Standard Form / Adhesion contracts	216
4.2.1. Meeting of the minds (<i>consensus ad idem</i>)	218
4.2.2. Digital meeting of the minds	220
4.2.3. <i>In rem</i> and <i>in personam</i>	226
4.2.4. Definition of a contract	228
4.2.5. Legal contract	230
4.2.6. Contract law	235
4.3. Contract law in Sri Lanka.....	240
4.3.1. Consideration	241
4.3.2. Consideration and “ <i>justa causa</i> ” in Sri Lanka.....	242
4.4. Digital Rights Management.....	244
4.5. Contract as a gate lock.....	250
4.5.1. Economic advantage of contractual protection of digital databases	254
4.5.2. The way that the economic advantage works.....	254
4.6. Third party involvement.....	259
4.7. Conclusion	262

CHAPTER 5.....	266
UNFAIR COMPETITION AND MISAPPROPRIATION.....	266
5.1. Introduction.....	266
5.2. Origin of unfair competition law	269
5.3. Passing off	274
5.3.1. Reverse passing off doctrine	277
5.4. The theory of parasitism and its applicability to the proposed Sri Lankan protection system	283
5.5. Infringement and unfair competition	287
5.6. Lessons on the protection of databases from unfair competition in the United States.....	290
5.7. Conclusion	296
CHAPTER 6.....	299
THE <i>SUI GENERIS</i> RIGHT PROTECTION OF DIGITAL DATABASES.....	299
6.1. Introduction.....	299
6.2. Meaning of the <i>sui generis</i> right.....	301
6.3. Substantial investment	309
6.4. Substantiality of the investment	319
6.5. The identification of the quantitative or qualitative nature of the substantial investment as a means of protecting and attracting investment.....	330
6.6. Substantial investment in obtaining, verification and presentation	334
6.6.1. “ <i>Obtaining</i> ”	336
6.6.2. “ <i>Verification</i> ”	341
6.6.3. “ <i>Presentation</i> ”	343
6.7. Investment and <i>sui generis</i> right in relation to the economic theory	347
6.8. Infringement of the <i>sui generis</i> right	354
6.9. Concluding remarks	358

CHAPTER 7.....	362
CONCLUSION	362
7.1. Introduction.....	362
7.2. Summary of the role of investment.....	364
7.3. Summary of the suggested mechanisms in each Chapter to find out the contribution to the protection of investment	367
7.4. Outline of the proposed system	384
7.4.1. Brief identification of the way in which Sri Lanka could benefit if it adopted UK or US law	386
7.5. The <i>sui generis</i> right in the light of the proposed system.....	391
7.6. Relationship between copyright, patent, contract, unfair competition/misappropriation and <i>sui generis</i> rights	395
7.7. Existing stakeholders	400
7.7.1. <i>Foreign investors and domestic investors</i>	400
7.7.2. <i>Database users and owners/authors</i>	400
7.7.3. <i>The general public</i>	401
7.7.4. <i>Law-makers and policy-makers</i>	402
7.7.4.1. <i>Judges and lawyers</i>	402
7.7.5. <i>Other international researchers in the database field</i>	403
7.8. Parliamentary process	404
7.9. Case studies in relation to the proposed system	407
7.9.1. Copyright case study	407
7.9.2. Patent case study.....	411
7.9.3. Contract case study.....	415
7.9.4. Unfair competition and misappropriation case study	418
7.9.5. The <i>sui generis</i> right protection case study	421
7.10. Reforms to domestic institutions and new institutions.....	423
7.10.1. <i>The National Intellectual Property Office of Sri Lanka</i>	423
7.10.2. <i>The Board of Investments of Sri Lanka</i>	425
7.10.3. <i>The Telecommunications Regulatory Commission of Sri Lanka</i>	427
7.11. Impact on international law	429
7.12. Concluding comments.....	434

BIBLIOGRAPHY	437
Books	437
Book Chapters	444
PhD Theses.....	446
Journal Articles.....	447
Conference Papers/Working Papers/Reports.....	463
Websites /Internet Resources.....	469
Table of Cases	472
Table of Legislation.....	485
Sri Lanka.....	485
United Kingdom	485
United States.....	486
European Union	486
International Instruments.....	488
Appendices.....	489
Directive 96/9 EC of the European Parliament and of the Council of 11 March 1996 on the Legal Protection of Databases.....	489
Intellectual Property Act, No. 36 of 2003 Sri Lanka.....	502

CHAPTER 1

INTRODUCTION

1.1. Background

This thesis examines the existing international and domestic legal protection of digital databases and its relevance to possible new mechanisms for the protection of digital databases in Sri Lanka.¹ Protection of digital databases can be divided into two separate parts, namely, legal protections and technological protection measures (TPM).² This thesis does not specifically examine the technical aspect of TPM as they are technical components and are outside the scope of this legal research. This study is particularly relevant at this time because of the current economic climate in Sri Lanka. After 30 years of war, Sri Lanka³ has been an important economy in the South Asian Region⁴ and because of this there is now, more than ever, a compelling need for further investment, innovation and the transfer of technology and knowledge. It has

¹ T Parsons, 'Law as an Intellectual Stepchild' (July 1977) 47/3-4 SI 11 at 12; DM Trubek, 'Toward a Social Theory of Law: An Essay on the Study of Law and Development' (November 1972) 82/1 YLJ 1 at 5.

² JE Cohen, 'A Right to Read Anonymously: A Closer Look at "Copyright Management" in Cyberspace' (1995-1996) 28 CLR 981 at 983-389.

³ N Arunatilake *et al.*, 'The Economic Cost of the War in Sri Lanka' (September 2001) 29/9 WD 1483 (Internet) <<http://www.sciencedirect.com/science/article/pii/S0305750X01000560>> accessed 22 April 2013.

⁴ Central Bank of Sri Lanka, 'Annual Report 2012' (2013) CBSL (Internet) at ch 1- Economic, Price and Financial System Stability, Outlook & Policies and Central Bank of Sri Lanka, 'Recent Economic Developments- Highlights of 2012 and Prospects for 2013' (2013) CBSL (Internet) Both reports are available at <http://www.cbsl.gov.lk/htm/english/10_pub/pub.html> accessed 22 June 2013; "Sri Lanka has changed dramatically since the end of the armed conflict in 2009. The Sri Lankan economy grew approximately 8% in 2011...Sri Lanka is now a middle-income country at peace". World Bank, 'Sri Lanka Overview' (Internet) <<http://www.worldbank.org/en/country/srilanka/overview>> accessed 9 May 2013.

been stated that: “The economies of the First World are dominated by the creation, manipulation and use of [electronic data]”.⁵ This trend is now transferring to developing countries around the world.⁶ As a developing country, electronic or digital concerns are becoming a vital part of the development of Sri Lanka.⁷ With the arrival of the mass-produced personal computer, electronic and digital concepts have become dependent on digital databases.⁸ Therefore, digital databases have become highly valued commercial commodities; and, in turn, this has meant that a competitive marketplace has developed which has attracted investors.⁹ It can be said that digital databases have become one of the building blocks of foreign and domestic investment in Sri Lanka.

⁵ MJ Davison, *The Legal Protection of Databases* (Cambridge University Press 2003) 1 [hereafter Davison, *The Legal Protection of Databases*].

⁶ R Sharma, IA Mokhtar, ‘Bridging the Digital Divide in Asia: Challenges and Solutions’ (2005/2006) 1/3 IJTKS (Internet) <<http://ssrn.com/abstract=1137850>> accessed 1 June 2013.

⁷ Central Bank of Sri Lanka, ‘Recent Economic Developments, Highlights of 2011 and Prospects for 2012’ (2012) CBSL (Internet) at 23 <http://www.cbsl.gov.lk/htm/english/10_pub/pub.html> accessed 22 June 2013.

⁸ JM Conley *et al.*, ‘Database Protection in a Digital World’ (Symposium 1999) 6/1 RJLT 2 at para 11 [hereafter Conley *et al.*, ‘Database Protection in a Digital World’]; J Tessensohn, ‘The Devil’s In The Details: The Quest for Legal Protection of Computer Databases and the Collections of Information Act, H.R. 2652’ (1998) 38/3 IDEA: JLT 439 at 439-443 [hereafter Tessensohn, ‘The Devil’s In The Details’]; RE Herr, ‘Is the *Sui Generis* Right a Failed Experiment? A Legal and Theoretical Exploration of How to Regulate Unoriginal Database Contents and Possible Suggestions for Reform’ (PhD Thesis/Copenhagen Business School DJØF Publishing 2008) at 23 [hereafter Herr, ‘Is the *Sui Generis* Right a Failed Experiment?’]; VH Bouganim, ‘The Legal Protection of Databases from Copyright to Dataright’ (PhD Thesis/Information Technology Law Unit, Centre for Commercial Law Studies, Queen Mary and Westfield College-University of London 1999) at 17 [hereafter Bouganim, ‘The Legal Protection of Databases from Copyright to Dataright’].

⁹ Tessensohn, ‘The Devil’s In The Details’ at 453.

1.1.1. The Problem

The focus of this research is digital databases and their legal protection in Sri Lanka. The thesis aims to identify the nature of investment in digital databases and to provide protection for the same. The investment in digital databases can be financial or non-financial or both. The thesis specifically focuses on the point of the digital version of databases and therefore examines the contribution of computer programs installed in digital databases. This does not mean, however, that the system proposed by thesis cannot be applied to the non-digital databases in Sri Lanka.

The current legal frameworks for digital databases are made up of copyright law,¹⁰ contract law,¹¹ *sui generis* right protection¹² and unfair competition law or misappropriation.¹³ Arguably, these legal frameworks provide protection for investment in database creation.¹⁴ In this research, investment in databases is a reference to the ways in which data is collected, verified, classified and presented in databases.¹⁵ Data or data structures, on their own, do not constitute a digital database; there needs to be an investment to merge the data

¹⁰ In the UK, Copyright, Patents and Designs Act 1988 [hereafter CDPA 1988], ss 3(1)(d), 3A.

¹¹ The Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the Legal Protection of Databases (OJ L 077 , 27/03/1996 P. 0020 - 0028), art.13 [hereafter Council Directive 96/9 EC (OJ L 077/20)].

¹² Council Directive 96/9 EC (OJ L 077/20), ch II.

¹³ Council Directive 96/9 EC (OJ L 077/20), art. 13.

¹⁴ E Derclaye, *The Legal Protection of Databases: A Comparative Analysis* (Edward Elgar 2008) 9 [hereafter Derclaye, *The Legal Protection of Databases: A Comparative Analysis*]; Davison, *The Legal Protection of Databases* 11.

¹⁵ Council Directive 96/9 EC (OJ L 077/20), art.7(1); *Compass-Datenbank GmbH v Republik Österreich* (Case C-138/11) before the Court of Justice of the European Union (Third Chamber) 12 July 2012 [2012] 5 CMLR 13 at 729.

and structure.¹⁶ The data structure organises the useful data pattern/s.¹⁷ Useful data patterns are subsequently used for the process of Knowledge Discovery in Databases (KDD). This structure is provided by computer programs in digital databases, and can enhance the 'value and/or usefulness of data'¹⁸ in databases.¹⁹ This thesis argues that the above mentioned aspects in relation to investment in digital databases have not been identified by the existing database protection mechanisms in Sri Lanka.²⁰

¹⁶ See this Chapter at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

¹⁷ U Fayyad, *et al.*, 'From data mining to knowledge discovery in databases' (Fall 1996) 17/3 AIM 37 at 39 [hereafter Fayyad *et al.*, 'From data mining to knowledge discovery in databases'].

¹⁸ The concepts of value and usefulness have various and distinctive meanings. The thesis will employ the both terms together and separately. More details can be found from this Chapter at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

¹⁹ Davison, *The Legal Protection of Databases* 276.

²⁰ Intellectual Property Act No. 36 of 2003, s 7 (1) (b) [hereafter IP Act of 36/2003/SL] available at National Intellectual Property Office of Sri Lanka <<http://www.nipo.gov.lk/>> OR World Intellectual Property Organization <<http://www.wipo.int/wipolex/en/profile.jsp?code=LK>> accessed 23 July 2013.

1.1.2. Types of Databases

Article 1(1) and 1(2) of the Database Directive²¹ provide protection for both types of databases, namely public and private. The public databases are publically accessible, for example *youtube*,²² and private databases are only available to the contracted parties, for example The Electronic Library of the University of Exeter.²³ Bouganim observed that, “[d]atabases that have been made publicly available are vulnerable to misuse and misappropriation. Arguably, the legal protection of databases is concerned mainly with this kind of database”.²⁴ The distinction between public and private signifies the notions of right of public,²⁵ the term of protection²⁶ and the user’s rights.²⁷

These public or private databases may be in digital or physical format. If Article 1(2) of the Database Directive²⁸ is taken into account, a collection of works, data or other materials is considered to be a database. Recital 17 of the Database Directive suggests some definitions for the terms of works, data, or other materials since the Database Directive does not have precise definitions for the same terms. Recital 17 states that “the term ‘database’ should be

²¹ Council Directive 96/9 EC (OJ L 077/20).

²² YouTube, <www.youtube.com> accessed 24 October 2013.

²³ The Electronic Library/University of Exeter <<http://as.exeter.ac.uk/library/resources/e-resources/elibrary/>> accessed 24 October 2013.

²⁴ Bouganim, ‘The Legal Protection of Databases from Copyright to Dataright’ at 36.

²⁵ Council Directive 96/9 EC (OJ L 077/20), art. 5.

²⁶ Council Directive 96/9 EC (OJ L 077/20), art. 10(2).

²⁷ Council Directive 96/9 EC (OJ L 077/20), arts. 7(2)(b), 8 and 9.

²⁸ Council Directive 96/9 EC (OJ L 077/20), art 1(2).

understood to include literary, artistic, musical or other collections of works or collections of other material such as texts, sound, images, numbers, facts, and data”.²⁹ Art galleries such as the National Gallery in London³⁰ and collection of movie tapes such as the collection of films which is maintained by National Film Corporation of Sri Lanka³¹ can therefore be databases. However, the copyright protection of these collections is “immaterial since works fallen into the public domain can easily fit into ‘data’ or ‘materials’”.³²

It is observed from the above discussion that the term “materials” opens an avenue for the question of tangibility of the collected data. This is a rather doubtful passage in terms of the recitals 10 and 12 of the Database Directive. The Directive encourages the function of “advanced information processing systems”³³ and “modern information storage and processing systems”.³⁴ However, these information systems or storage systems are sometimes connected to the tangible materials. The end users expect to obtain tangible materials through the process of manipulation of digital data in digital databases. For example, suppose that *Tandoori Chicken* is ordered for dinner through a digital database – the consumer would not be happy until he could see the meal on the dining table.

²⁹ Council Directive 96/9 EC (OJ L 077/20), recital 17.

³⁰ The National Gallery <<http://www.nationalgallery.org.uk/>> accessed 25 October 2013.

³¹ National Film Corporation of Sri Lanka <<http://www.nfc.gov.lk/>> accessed 25 October 2013.

³² Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 57.

³³ Council Directive 96/9 EC (OJ L 077/20), recital 10.

³⁴ Council Directive 96/9 EC (OJ L 077/20), recital 12.

This thesis focuses mainly on digital databases which are stored in computer programs and accessible by electronic means. This does not necessarily mean that this deviation would contradict the provisions of WIPO Copyright Treaty³⁵ and the Agreement on Trade Related Aspect of Intellectual Property Rights (TRIPS).³⁶ The Database Directive provides protection over databases without considering the means of access.³⁷ However the Database Directive does not apply to the computer programs “used in the making or operation of databases”.³⁸ This thesis deviates from this point and pays special attention to the computer programs in digital databases which are used to manipulate data in digital databases. The thesis identifies this process as the enhancement of value and/or usefulness of data in digital databases.³⁹

All digital databases are either off-line or on-line, for example a digital library stored in a CD with a computer program for its data manipulation is an off-line digital database and a digital library stored with a computer program which links to the Internet is an on-line digital database. Both of these versions enhance the value and/or usefulness of data thanks to installed computer programs. In terms of this distinction Bouganim suggested that, “...the application of contractual terms that will govern the rights and obligations concerning databases is

³⁵ World Intellectual Property Organization Copyright Treaty (adopted in Geneva/Switzerland, 20 December 1996).

³⁶ Agreement on Trade Related Aspects of Intellectual Property Rights 1994 (1 January 1995- Administrated by World Trade Organisation).

³⁷ Council Directive 96/9 EC (OJ L 077/20), arts. 1(1) and 1(2).

³⁸ Council Directive 96/9 EC (OJ L 077/20), art. 1(3).

³⁹ See this Chapter at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

arguably more suitable for on-line databases”.⁴⁰ However, this thesis raises the issues of meeting of the minds in on-line databases and advocates a notion of digital meeting of minds.⁴¹

1.1.3. Definition of a database

‘Database’ is a term with no precise definition,⁴² and this is certainly the case in the digital context.⁴³ In its most general definition, “a database may be described as an organized collection of data, which is probably, but not necessarily, electronic in nature”.⁴⁴ A database is also a “collection of independent works, data or other materials that are arranged in a systematic or methodical way and are individually accessible by electronic or other means”.⁴⁵ The US Copyright Office has stated that, “in the terminology of copyright law, a database is a compilation: a work formed by the collection and assembling of

⁴⁰ Bouganim, ‘The Legal Protection of Databases from Copyright to Dataright’ at 38.

⁴¹ See Chapter 4 at 4.2. Standard Form / Adhesion contracts, 4.2.1. Meeting of the minds (*consensus ad idem*) and 4.2.2. Digital meeting of the minds.

⁴² Herr, ‘Is the *Sui Generis* Right a Failed Experiment?’ at 28; M Pattison, ‘The European Commission’s Proposal on the Protection of Computer Databases’ (1992) 14/4 EIPR 113 at 115 [hereafter Pattison, ‘The European Commission’s Proposal on the Protection of Computer Databases’].

⁴³ “[T]he term ‘database’ has taken on several definitions, covering everything from telephone books to the World Wide Web (‘WWW’). Our intellectual preference would be to abandon ‘database’ because of its lack of clarity and substitute ‘information system’”. Conley *et al.*, ‘Database Protection in a Digital World’ at para 12.

⁴⁴ D Lanzotti, D Ferguson, ‘Databases and The Law’ (This paper was prepared for Prof. Laura Gasaway’s Cyberspace Law course at the UNC School of Law for Spring, 2006) (Internet)
<<http://www.unc.edu/courses/2006spring/law/357c/001/projects/dougf/node1.html>>
accessed 16 April 2013.

⁴⁵ Council Directive 96/9 EC (OJ L 077/20), art 1(2); *Football Dataco Ltd v Sportradar GmbH*, Case C-173/11 The Court of Justice of the European Union (Third Chamber) 18 October 2012 [2013] FSR 4 at 74; *Football Dataco Ltd and others v Yahoo! UK Ltd and others* (Case C-604/10) The Court of Justice of the European Union 1 March 2012 [2012] Bus LR 1753.

pre-existing materials or of data”.⁴⁶ Databases can be divided into two parts based on the content of the database and the structure or arrangement of the database.⁴⁷ The structure or arrangement of data should enhance its value and/or usefulness.⁴⁸ In digital databases, computer programs enhance the value and/or usefulness of data.⁴⁹ The meaning of data will be evaluated through electronic, legal, and sociological perspectives.

For the purposes of this thesis, it will be useful to consider other relevant definitions of the term ‘database’. There are a number of possibilities. Article 1 of the Database Directive, which concerns the legal protection of databases in any form describes a database as “a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means”.⁵⁰ It is noteworthy that protection under this database does “not apply to computer programs used in the making or operation of databases accessible by electronic means”.⁵¹

Derclaye herself notes this, but subsequently questions the appropriateness of this exclusion of computer programs.⁵² This thesis respects this observation

⁴⁶ D Lanzotti, D Ferguson, *supra* n.44; The US, the EU and the UK systems are different, and the thesis mentions them for the purpose of comparison.

⁴⁷ Conley *et al.*, ‘Database Protection in a Digital World’ at para 13; Pattison, *supra* n.42, at 115.

⁴⁸ Conley *et al.*, *ibid.*, at para 13; See this Chapter at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

⁴⁹ Conley *et al.*, *ibid.*, at para 13; See this Chapter at 1.5. *ibid.*

⁵⁰ Council Directive 96/9 EC (OJ L 077/20), art. 1 (2).

⁵¹ Council Directive 96/9 EC (OJ L 077/20), art. 1 (3).

⁵² E Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 67-68.

regarding computer programs and examines the contribution of computer programs in digital databases.

Returning to the definitions, Davison observes that:

“In particular, databases are a form of compilation, collection, collective work or composite work. In addition, a given database may be considered to be a literary work because it is a table, and tables are treated as a form of literary work in a number of jurisdictions (Section 10 of the Australian Copyright Act 1968, defines a literary work as including ‘a table or compilation expressed in words, figures or symbols (whether or not in visible form)’). For present purposes, the term ‘compilation’ will be adopted to refer to all these various descriptions”.⁵³

This thesis respects this observation in line with copyright protection. Furthermore, Sri Lankan databases still depend on a definition of ‘compilation’ under the copyright protection.⁵⁴ However, copyright is only one of the mechanisms under the proposed system.

Herr observes that:

“A typical database comprises three components: (1) the contents, (2) a logical schema which describes the contents and the relationships within it and (3) a database management system through which one can find, manage and transform data”.⁵⁵

As she further notes, the contents of a database take different forms which will vary “from unoriginal numbers or facts to copyrighted expression to a combination of both”.⁵⁶ It should be noted that the analogue databases due to their physical paper form are restricted to writings, drawings or pictures, but the electronic or digital databases in contrast “can accommodate many media

⁵³ Davison, *The Legal Protection of Databases* 12.

⁵⁴ IP Act of 36/2003/SL, s 7 (1) (b).

⁵⁵ Herr, ‘Is the *Sui Generis* Right a Failed Experiment?’ at 29.

⁵⁶ Herr, *ibid.*

including film and sound”⁵⁷ and again writings and pictures. Computer programs in digital databases can transform media into multiple formats.

A database is literally supposed to transform a ‘collection of data’⁵⁸ which would otherwise have no meaning “into something useful – information – [which can be easily] understood, analyzed and further transformed”.⁵⁹ As Herr states “the value-adding process”⁶⁰ or as this thesis identifies, “value or usefulness enhancing process”⁶¹ is of paramount importance in any database. In the first level which is data, this enhancement process is inclusive of “selection, verification, updating and addition of complementary data”.⁶² The presentation of the database’s organization is occurred at the next level i.e. “the logical schema”.⁶³ This thesis identifies this logical schema as the process of data mining and knowledge discovery.⁶⁴ Herr emphasises that, in terms of “the Database Directive, these are some of the investments that form the basis of database content protection”.⁶⁵ This thesis suggests that such investments should be protected.⁶⁶

⁵⁷ Herr, *ibid.*

⁵⁸ IP Act of 36/2003/SL, s 7 (1) (b).

⁵⁹ Herr, *supra* n.55.

⁶⁰ Herr, *supra* n.55.

⁶¹ See this Chapter at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

⁶² Herr, ‘Is the *Sui Generis* Right a Failed Experiment?’ at 29.

⁶³ Herr, *ibid.*

⁶⁴ See this Chapter at 1.5. *supra* n.61.

⁶⁵ Herr, *supra* n.62, at 29.

⁶⁶ See this Chapter at 1.6. The role of investment in database protection.

This thesis accepts Herr's definition of transformation of data. The definition of transformation of data shows the need to examine the contribution of computer programs in digital databases, as they enhance the value and/or usefulness of data content.

Bouganim states that introducing a *sui generis* right for databases demands a precise definition of databases for the purpose of intellectual property law: "international measures and addressing database copyright refer to 'compilations' although it is understood that the objects of protection are databases".⁶⁷ He goes on to say that:

"A database is based upon pre-existing materials. It is an assemblage of such materials. Having characterised databases as such, it suggests that there is nothing new in a database in terms of materials. It is a derivative work based on other materials".⁶⁸

He has clearly distinguished data from computer programs for the purpose of defining databases: "when the information is the object to be processed, manipulated or presented, it is 'data' and not a 'computer program'".⁶⁹ However, he further observes that "it is still hard to draw the exact line between 'data', a 'database' and a 'computer program'".⁷⁰ In this regard, this thesis suggests that the notion of enhancement of value and/or usefulness in digital databases is an example of the contribution of computer programs in digital databases.⁷¹

⁶⁷ Bouganim, 'The Legal Protection of Databases from Copyright to Dataright' at 59.

⁶⁸ Bouganim, *ibid.*, at 62.

⁶⁹ Bouganim, *ibid.*, at 67.

⁷⁰ Bouganim, *ibid.*, at 68.

⁷¹ See this Chapter at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

1.1.4. Reasons for a research into digital database protection

Traditionally, databases have been protected by copyright,⁷² i.e., copyright protects a degree of investment made in databases.⁷³ While copyright in common law countries protects labour, in civil law countries copyright protects creativity.⁷⁴ Although Sri Lanka has adopted a mixture of these two legal traditions, it does not have a proper legal regime for database protection. In addition to this, the existing intellectual property law regime in Sri Lanka is inadequate and inappropriate for protecting digital databases. Previous studies on intellectual property law have paid little or no attention to digital databases.⁷⁵ Furthermore, these studies have not sufficiently considered new methods of regulation and have failed to identify the significance of the protection of investment in order to attract investors into the country. These reasons have triggered this study, with a view to improving this area of law in Sri Lanka.

As noted above, this study notes that copyright, contract law, unfair competition and misappropriation and the *sui generis* right protection have been used to offer protection in this area.⁷⁶ The aim of this study is to compare and contrast these, in order to determine which of them are suitable for the proposed legal regime to protect digital databases in Sri Lanka. The current study shows the

⁷² Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 1.

⁷³ Davison, *The Legal Protection of Databases* 18-19.

⁷⁴ Derclaye, *supra* n.72, 1; See *inter alia* K Garnett *et al.*, *Copinger & Skone James on Copyright*, Volume 1 (16th edn, Sweet & Maxwell 2012).

⁷⁵ See this Chapter at 1.6.5.Previous research carried out in this area.

⁷⁶ See this Chapter at 1.1.Background.

need to identify the contribution of computer programs in digital databases.⁷⁷ In so doing, the study considers patent protection for the purpose of protecting computer programs in order to protect investments in digital databases.

Computer programs and databases are traditionally protected under copyright law.⁷⁸ However, some countries have given patent protection to computer programs.⁷⁹ Although some countries have considered the patentability of computer programs, patent protection is more controversial when it relates to digital formats.⁸⁰ It suggests that if patent protection is granted to computer programs which run on digital databases, then the scope of patent protection of computer programs could be affected. This demonstrates that providing patent protection over computer programs in digital databases is complicated. In fact, copyright protection is more usefully and widely employed in existing database protection regimes elsewhere in the world. For this purpose, computer programs are considered “as such”.⁸¹ However, recently, in *SAS Institute Inc. v World Programming Limited*, Arnold J held that:

“[N]either the functionality of a computer program nor the programming language and the format of data files used in a

⁷⁷ See this Chapter at 1.5.Ways that digital databases enhance the value and/or usefulness of data.

⁷⁸ Computer program - CDPA 1988, 3 (1)(b) and Databases - CDPA 1988, 3A.

⁷⁹ In Japan, computer program-related inventions are patentable; The computer program can be patented in Korea. European Patent Office <<http://www.epo.org/patents/patent-information/east-asian/helpdesk/korea/faq.html#anew2>> accessed 1 May 2013; In Australia, computer program related inventions are considered as patentable subject matter. *AIPLA Patent Handbook* (Internet) <<http://www.aipla.org/patenthandbook/countries/australia/AUsoftware.html>> accessed 23 May 2013.

⁸⁰ *Aerotel Ltd v Telco Holdings Ltd Macrossan's Patent Application* (No.0314464.9) [2007] Bus LR 634; *Symbian Ltd v Comptroller General of Patents, Designs and Trade Marks*, Court of Appeal [2008] EWCA Civ 1066.

⁸¹ See Chapter 3 at 3.7. “As such” exclusion.

computer program in order to exploit certain of its functions constitute a form of expression of that program and, as such, are not protected by copyright in computer programs for the purposes of that [Software] directive”.⁸²

Therefore, copyright does not protect a programming language as such, nor its interfaces, data file formats or functionality. Furthermore, an Australian case, *Telstra Corporation Limited v Phone Directories Company Pty Ltd.*,⁸³ held that copyright was not suitable for protecting all types of databases. These decisions call for more research on database protection with special attention to the different types of databases, i.e. digital databases. The functionality of computer programs brings value-enhanced data and/or useful data. Therefore, the functionality of computer programs should be identified in the process of establishing a protection mechanism.

The current protection mechanisms in the EU, the UK and the US are considered comparatively in this research. Although EU database protection discusses the *sui generis* right protection, this concept has been questioned.⁸⁴ To this end, this study evaluates the desirability of the *sui generis* right protection. While the EU has a specific right for protecting databases i.e. the *sui generis* right protection, UK databases are already protected by copyright.⁸⁵ In

⁸² *SAS Institute Inc. v World Programming Limited* [2013] EWHC Ch 69, 2013 WL 128161 at para 10; Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs and of Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 (codified version) (OJ L 122, 1991-05-17, P00 9–0013).

⁸³ [2010] FCA 44.

⁸⁴ Commission of the European Communities, The EU Single Market, ‘Evaluation of the 1996 Database Directive raises questions’ (January 2006) 40 SMNA (Internet) <http://ec.europa.eu/internal_market/smn/smn40/docs/database-dir_en.pdf> accessed 7 May 2013; Commission of the European Communities, ‘First Evaluation of Directive 96/9/EC on the Legal Protection of Databases’(DG Internal Market and Services Working Paper 12 December 2005) at 25-27; Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 144; A Koo, ‘Database right decoded’ (2010) 32/7 EIPR 313 at 319.

⁸⁵ Derclaye, *ibid.*, 2-3.

Football Dataco Ltd v Britten Pools Ltd,⁸⁶ the High Court of Justice (Chancery Division) decided that databases (the Fixture Lists) were protected by database copyright, but not by the *sui generis* database rights or any other copyright.⁸⁷

In the US, databases are protected primarily by unfair competition, contract, TPM and anti-circumvention provisions.⁸⁸ TPM and anti-circumvention provisions are not the subject of this study. The positive effects/advantages and negative effects/disadvantages of these current mechanisms are examined in comparison with the requirements of protection of investment. The main objective of this process is to make a *sui generis* right for the protection of digital databases in Sri Lanka in order to attract investment into the digital database arena.

The obligations under the TRIPS Agreement⁸⁹ require it to update the Sri Lankan Code of Intellectual Property⁹⁰ to meet the TRIPS Convention's minimum requirements. The suggested amendments of the IPR Reform Commission were finally placed in the IP Act of 36/2003/SL that consisted in the TRIPS Agreement obligations.⁹¹ The WIPO Copyright Treaty (WCT) and WIPO

⁸⁶ (2010) RPC 17.

⁸⁷ *Football Dataco Ltd v Britten Pools Ltd* [2010] EWHC Ch 841, [2010] RPC 17 at para 100.

⁸⁸ 17 USC §103; *CCC Information Services v Maclean Hunter Market Reports* 44 F.3d 61 (2d Cir. 1994); *Feist Publications v. Rural Telephone Co.* 499 US 340 (1991); Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 223; J Askanazi *et al.*, 'iBRIEF: Copyrights & Trademarks: The Future of Database Protection in U.S. Copyright Law' [2001] DLTR 17.

⁸⁹ Agreement on Trade-Related Aspects of Intellectual Property Rights 33 ILM 1197 (1994) came into force on 1 January 1995. [hereafter 'the TRIPS Agreement'].

⁹⁰ The Code of Intellectual Property Act, No. 52 of 1979.

⁹¹ J Fernando, 'Software Protection & e-Commerce in IPR' Information and Communication Technology Agency of Sri Lanka (Internet) at 2 <http://www.icta.lk/pdf/Article_%20Software_Protection&e-Commerce.pdf> accessed 9 March 2011; I Abeyesekere,

Performance Phonograms Treaty (WPPT) have also played a role in the field of protection of computer programs.⁹² Although they cover copyright, patent, trademarks and trade secrets, they do not cover digital databases. Therefore, complying with the TRIPS or WCT⁹³ will not provide a solution for the protection of digital databases in Sri Lanka. This observation further shows the necessity for Sri Lanka to have its own mechanism for the protection of digital databases. However, the proposed domestic protection should comply with international legal instruments.

As noted above, traditionally, copyright provides a considerable level of protection for databases. For example, in the United Kingdom, databases are adequately protected by copyright.⁹⁴ This protection is divided into two separate parts in databases: the content of databases and the databases themselves. The Copyright and Rights in Databases Regulations,⁹⁵ which implement the EU Database Directive⁹⁶ do not make any changes to the copyright protection of the individual content of databases. The individual content can simply be protected by copyright. The problem arises over whether this protection is granted to the owner or creator of the particular database. Copyright protection of the data as content already goes to the owner of the particular data. In the

'Copyright law and practice in Sri Lanka' (1998) 29/1 IRIPCL 27 at 42 [hereafter Abeyesekere, 'Copyright law and practice in Sri Lanka'].

⁹² WIPO Copyright Treaty (WCT) is a special agreement within the meaning of Article 20 of the Berne Convention for the Protection of Literary and Artistic Works.

⁹³ WIPO, 'Summary of the WIPO Copyright Treaty (WCT)' (1996) (Internet) <http://www.wipo.int/treaties/en/ip/wct/summary_wct.html> accessed 13 May 2013.

⁹⁴ CDPA 1988, s 3A (2).

⁹⁵ Copyright and Rights in Databases Regulations 1997, SI1997/3032.

⁹⁶ Council Directive 96/9 EC (OJ L 077/20).

UK, databases themselves are protected by copyright if they are original literary works.⁹⁷ The Regulations⁹⁸ do not explain whether copying of parts or a whole of a database is an infringement of copyright. The EU Directive on the legal protection of databases provides clarity in this regard; copyright in databases only extends to the selection or arrangement if it is an intellectual creation of the author.⁹⁹

In addition to the copyright law, databases can be protected by contracts. Contracts may provide a method of regulating access to, and the use of, a database¹⁰⁰, but which can be especially problematic with digital databases. With digital databases, 'Standard form contracts'¹⁰¹ or 'Adhesion contracts'¹⁰² are more common than with traditional databases.¹⁰³ In these contracts, a database owner or author provides the terms and conditions of the contract and subsequently users have to agree to them. Database users are left without the

⁹⁷ CDPA 1988, s 3A (2).

⁹⁸ Copyright and Rights in Databases Regulations 1997, SI1997/3032.

⁹⁹ Council Directive 96/9 EC (OJ L 077/20), recitals 15, 27, 35, 39.

¹⁰⁰ See Chapter 4 at 4.5. Contract as a gate lock.

¹⁰¹ "A standard form contract is a pre-established record of legal terms regularly used by a business entity or firm in transactions with customers...The firm requires the other party to accept the record without amendment, and without expecting the party to know or understand its terms". JJA Burke, 'Contract As Commodity: A Nonfiction Approach' (1999-2000) 24 SHLJ 285 at 288; HB Sales, 'Standard Form Contracts' (July 1959) 16/3 MLR 318.

¹⁰² This phrase was coined by Edwin W. Patterson. LE Trakman, 'The boundaries of contract law in cyberspace' [2009] IBLJ 159 at 160; EW Patterson, 'The Delivery of a Life-Insurance Policy' (December 1919) 33/2 HLR 198; TD Rakoff, 'Contracts of Adhesion: An Essay in Reconstruction' (1984) 96/6 HLR 1173 at 1177.

¹⁰³ See Chapter 4 at 4.2. Standard Form / Adhesion contracts; JJA Burke, *supra* n.101, at 289.

option of effective negotiation on the terms and conditions of the contract.¹⁰⁴ This means that there is no ‘meeting of the minds’ (*consensus ad idem*) which is the basis of an agreement.¹⁰⁵ This disadvantage as regards the contract protection in digital databases needs to be resolved in order to ensure optimal investment¹⁰⁶ in digital databases. There is also no provision for misuse of a database by a third party.¹⁰⁷ This is identified in this study and the result, such as third party licensing processes, TPM¹⁰⁸ (or Digital Rights Management¹⁰⁹) would be a part of the proposed mechanism for the protection of databases in Sri Lanka.

Copyright or contracts are not the only available methods for the protection of databases. Unfair competition laws and misappropriation are also relevant. The *sui generis* rights have been criticised as “they harm science and education or restrict the public domain and lead or may lead to monopolies on information”.¹¹⁰ The extraction or re-utilisation of any database in which there has been a substantial investment in obtaining, verifying or presenting the data contents is not protected under the *sui generis* rights regime.¹¹¹ Therefore, there

¹⁰⁴ *Armendariz v Foundation Health Psychcare Serv.* 24 Cal. 4th 83 (2000); *Flores v Transamerica HomeFirst, Inc.*, 93 Cal.App.4th 846 (2001); *Craig Comb, et al. v PayPal, Inc.* 218 F. Supp. 2d 1165 (ND Cal. 2002).

¹⁰⁵ MR Cohen, ‘The Basis of Contract’ (February 1933) 46/4 HLR 553 at 562, 575; See Chapter 4 at 4.2.1. Meeting of the minds (*consensus ad idem*).

¹⁰⁶ See Chapter 4 at 4.2.2. Digital meeting of the minds.

¹⁰⁷ See Chapter 4 at 4.6. Third party involvement.

¹⁰⁸ See Chapter 4 at 4.6. *ibid*.

¹⁰⁹ See Chapter 4 at 4.4. Digital Rights Management.

¹¹⁰ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 255.

¹¹¹ Council Directive 96/9 EC (OJ L 077/20), arts. 7(1), 7 (2) (a), 7(2) (b) and 7(5).

is no requirement for creativity or originality. In contrast, “unfair competition protects all databases against all types of extractions and reutilizations”.¹¹² Commentators¹¹³ argue that “misappropriation is a more flexible and equitable solution than an intellectual property right and better respects the public domain”.¹¹⁴ The problems with these arguments are that they are not presented with substantial reasoning and have hardly been developed. For example, US commentators¹¹⁵ “advocate a federal codification of the misappropriation doctrine for databases but have not proposed a concrete model for protection”.¹¹⁶

In *Metropolitan Opera Association*,¹¹⁷ the defendant made recordings of broadcasted performances of operas which were produced by the complainant opera producing company, and subsequently advertised and sold those inferior quality recordings at lower prices. The defendant was held liable for unfair competition by misappropriating the intellectual product of the plaintiff. The basis of liability was unfair business practice to profit from the labour, skill, and

¹¹² C Sawdy, ‘High Court decision revisits protection of databases in the United Kingdom-*Football Dataco Ltd v Britten Pools Ltd*’ (Case Comment)(2010) 21/6 ELR 221; Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 256.

¹¹³ G Westkamp, ‘Protecting Databases Under US and European Law - Methodological Approaches to the Protection of Investments Between Unfair Competition and Intellectual Property Concepts’ (2003) 34/7 IRIPCL 772; Herr, ‘Is the *Sui Generis* Right a Failed Experiment?’ at 49-50.

¹¹⁴ Derclaye, *supra* n.110, 256.

¹¹⁵ RY Fujichaku, ‘The Misappropriation Doctrine in Cyberspace: Protecting the Commercial Value of ‘Hot News’ Information’ (1998) 20 HLR 20; TM Sanks, ‘Database Protection: National and International Attempts to Provide Legal Protection for Databases’ (1998) 25 FSULR 991.

¹¹⁶ Derclaye, *supra* n.110, 256.

¹¹⁷ *Metropolitan Opera Association v Wagner - Nichols Recorder Corp* 101 NYS 2nd 483(1950).

expenditure of the complaint opera producing company. However, the difficulty with these laws is that there is a possibility of overlapping with copyright and that cannot be accepted under US law.¹¹⁸ Although it has happened in the US, commentators¹¹⁹ have suggested that in other countries, such as England and Australia, “there is a significant link between unfair competition principles and the approach to infringement of copyright”.¹²⁰ These arguments show that there is a conundrum when database protection depends on unfair competition law and this shows the need for further research on this subject. However, it is worth mentioning that the US Federal *sui generis* intellectual property rights have been based on unfair competition laws.¹²¹ The purpose of a discussion on unfair competition law concepts is to provide a specific form of unfair competition law which could be employed in the proposed Sri Lankan database regime.¹²²

¹¹⁸ Section 301 Copyright Act 1976 which amended the US Code, (17 USC 301); *National Basketball Association v Motorola, Inc.* 105 F 3d 841 (2nd Cir, 1997).

¹¹⁹ “For example, [it is] suggested that the approach to originality and infringement in England and Australia is influenced by principles of unfair competition, even though or perhaps because there is no general statutory or common law prohibition of unfair competition in either country”. cited in Davison, *The Legal Protection of Databases* 37.

¹²⁰ Davison, *ibid.*, 37.

¹²¹ Davison, *ibid.*, 37.

¹²² See Chapter 5 .

1.2. Methodology

The different methodologies used in this thesis ‘describe’, ‘explain’, ‘evaluate’, ‘compare’, ‘correlate’, ‘predict’ and ‘control’.¹²³ The research depends on observations and interpretations as they are the main method of collection of research data. The observation focuses on the EU, the UK and US experiences of database protection. This methodology expects to predict future events in Sri Lanka according to the same circumstances in the examined jurisdictions. The thesis explains the facts which are collected through observation and interpretation, in order to provide a protection system for digital databases. This process connects with the evaluative research theme, evaluating existing database regimes in the EU, the UK and the US. This evaluation is in a comparative sense relevant to the research context and main purpose i.e. protection of investment of the digital databases in Sri Lanka.¹²⁴ In correlating the results of the research, “the relationships between two phenomena are investigated to see whether and how they influence each other”.¹²⁵ The thesis identifies how Sri Lanka could benefit if it adopted UK and US law.¹²⁶ Possible future behaviour of digital database protection will be examined and subsequently recommendations are made. The main phases of this process can be found from the Chapter 7.¹²⁷

¹²³ N Walliman, *Research Methods: the Basics* (Routledge 2011) 8-9.

¹²⁴ See this Chapter at 1.6.2. Link between protection and investment.

¹²⁵ N Walliman, *supra* n.123, 8.

¹²⁶ See Chapter 7 at 7.4.1. Brief identification of the way in which Sri Lanka could benefit if it adopted UK or US law.

¹²⁷ See Chapter 7 at 7.3. Summary of the suggested mechanisms in each Chapter to find out the contribution to the protection of investment, 7.4. Outline of the proposed system, 7.5. The sui generis right in the light of the proposed system, 7.6. Relationship between

In relation to the comparative research theme, this research will compare and contrast the existing legal mechanisms in the EU, the UK and the US. However, this does not mean that this study is limited to the legal mechanisms of the EU, the UK and the US as mechanisms used by other countries will be examined when and where appropriate in terms of protection of investments in digital databases. The existing legal mechanisms relating to intellectual property law and their preparatory works as well as judicial decisions of Sri Lanka are examined for the purpose of comparing with the legal regimes stated above. The research, therefore, uses comparative analysis to arrive at its conclusions. At a basic level, a comparative analysis can be divided into two types, 'classic' and 'lens'.¹²⁸ In a classic comparison, similar components are compared and contrasted. In this study they are the legal regimes of each of the countries which contain considerable differences. This technique shows that when comparing, it is important to draw similarities between these components. A lens comparison weighs up two legal regimes or countries comparatively. Both types of comparative analysis are employed in this research.

Disparities can be seen among database protection systems in each country and legal regime. This is the basic ground for using comparative analysis in this study. Countries have reached levels of protection which fulfil the necessities of those particular countries and legal regimes, but these protections overlap with

copyright, patent, contract, unfair competition/misappropriation and sui generis rights, 7.7. Existing stakeholders, 7.10. Reforms to domestic institutions and new institutions and 7.11. Impact on international law.

¹²⁸ K Walk, 'How to Write a Comparative Analysis' Writing Center/Harvard University (Internet) <<http://www.fas.harvard.edu/~wricntr/documents/CompAnalysis.html>> accessed 14 February 2011; See *inter alia* MS McDougal, 'The Comparative Study of Law for Policy Purposes: Value Clarification as an Instrument of Democratic World Order' (1952) 1/12 AJCL 24 and P de Cruz, *A Modern Approach to Comparative Law* (Kluwer International 1993).

other intellectual property law concepts which are used in the same legal system. In the US, for example, the legal protection is based upon unfair competition law which overlaps with copyright law. There are countries which provide liberal mechanisms for the protection of copyright. In the Netherlands, compilations for the purpose of publication are given copyright protection. "This is deliberately designed to protect publications such as telephone directories, timetables, and catalogues against unauthorized reproduction. Similarly, Scandinavian countries allow limited copyright protection to catalogue type material such as telephone directories and timetables".¹²⁹ The time period for this protection is ten years. In contrast, the Australian position is quite different in this regard. In the Australian case, *Telstra Corporation Limited v Phone Directories Company Pty Ltd*,¹³⁰ it was held that copyright was not suitable for the protection of all types of databases. This case focused on the protection of compilations as a database. These similar issues in different legal systems are analysed accordingly, in order to support the proposed protection of databases in Sri Lanka.

The comparative analysis will prove itself to be useful when it is employed in research for a proposal for a new legal regime. This research mainly focuses on the point of making the *sui generis* right protection mechanism for Sri Lankan digital databases. This proposed Sri Lankan mechanism consists of different concepts which are currently employed in different legal regimes. Hence, it is a bundle of protection rights and mechanisms.

¹²⁹ Gupta VK, 'Database Protection: Current Trends and Issues' (1996) 15/3 IT&T-NISTDS, New Delhi (Internet) <<http://www.dsir.gov.in/pubs/itt/itt9603/dbprot.htm>> accessed 14 February 2011.

¹³⁰ [2010] FCA 44.

1.2.1. Using economics as an approach to the concept of “property”

As mentioned earlier, databases are commodities and they create incentives for their authors and owners. The economic analysis of property rights reflects a version of the incentive theory.¹³¹ Landes and Posner note that: “Intellectual property is a natural field for economic analysis of law”.¹³² Investment contains an economic and commercial element which needs to be protected by intellectual property protection.¹³³ Providing protection for commercial commodities attracts more users, such as data consumers in digital databases and, thus, more investors.¹³⁴ The substantial investment¹³⁵ in digital databases can be “financial or result from time, energy or efforts, material or human i.e. labour in the process of the making of the database”.¹³⁶

In terms of labour, John Locke argued that “every human being is the owner of his own person so he must have a property right on the fruits of his own labour”.¹³⁷ A database is a result of its author’s own labour, skill and judgment.¹³⁸ A database author as the owner of a database enjoys a bundle of

¹³¹ Herr, ‘Is the *Sui Generis* Right a Failed Experiment?’ at 17; WM Landes, RA Posner, ‘An Economic Analysis of Copyright Law’(June 1989) 18/2 JLS 325 at 326.

¹³² WM Landes, RA Posner, *ibid.*, at 325; JM Buchanan, ‘Good Economics-Bad Law’ (1974) 60 VLR 483.

¹³³ See this Chapter at 1.6.2. Link between protection and investment.

¹³⁴ See this Chapter at 1.6.2. *ibid.*

¹³⁵ Council Directive 96/9 EC (OJ L 077/20), art. 7.

¹³⁶ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 73; *Fixtures Marketing Ltd v Oy Veikkaus Ab*[2005] ECDR 2 at para 38; *Fixtures Marketing (Greece)* [2004] ECR I-10549; Council Directive 96/9 EC (OJ L 077/20), recital 40.

¹³⁷ CB Macpherson (ed), *John Locke: Second Treaties of Government* (Hackett Publishing 1980) 16.

¹³⁸ See Chapter 2.

rights.¹³⁹ A database is, therefore, a property which provides rights for its author or owner.

In general, the subject of property, for our purposes, intellectual property, is a subject which concerns the relationship between persons and property.¹⁴⁰ Property is seen to mediate our social relationships and it is seen as an extension of the person and as a means by which the person can relate freely and transparently with others.¹⁴¹ Intellectual property law gives certain exclusive rights to the owner or author over their intangible assets.¹⁴² These rights give some kind of control (legally enforceable power) to the owners over their assets.¹⁴³ Controlling power can be employed in order to achieve the benefits best available from digital databases. These benefits may be profits, popularity or reputation.¹⁴⁴ The enhanced value and/or usefulness of data in digital databases brings these benefits.

Jeremy Bentham wrote that “[p]roperty and law are born together, and die together. Before laws were made there was no property; take away laws, and property ceases”.¹⁴⁵ Ownership of a database as an intangible property is

¹³⁹ US Copyright Act 1976, s 106.

¹⁴⁰ M Davies, N Naffine, *Are Persons Property? Legal debate about property and personality* (Ashgate 2001) 125.

¹⁴¹ M Davies, N Naffine, *ibid.*, 6.

¹⁴² RM Hilty, ‘Rationales for the legal protection of intangible goods and cultural heritage’ (2009) 48/8 IRIPCL 883 at 887.

¹⁴³ WM Landes, RA Posner, ‘The Economics of Trademark Law’ (1988) 78 TR 267 at 267 [hereafter Landes, RA Posner, ‘The Economics of Trademark Law’].

¹⁴⁴ Landes, RA Posner, ‘The Economics of Trademark Law’ at 272; P Resnick *et al.*, ‘The value of reputation on eBay: A controlled experiment’ (June 2006) 9/2 EE 79 at 80.

¹⁴⁵ M Davies, N Naffine, *supra* n.140, 184.

meaningless without a proprietary owner. Laws pertaining to the concepts of copyright, patent, contract or misappropriation provide validity to the ownership of databases. Law provides protection over property.¹⁴⁶ This protection should address the investment made in order to provide incentives for it because incentives attract future investments. Therefore, a protection regime which addresses investment attracts future investors.¹⁴⁷ The proposed protection mechanism of digital databases considers what is likely to be the best concept to protect digital databases in Sri Lanka in order to attract investment.

It should be noted that a right being labelled as 'property' or 'proprietary' is not inherently significant and does not mean that the right will have all the characteristic incidents of full ownership.¹⁴⁸ Intellectual property rights cover the phase of ownership.¹⁴⁹ For instance, copyright gives the right to prevent the making of unauthorized copies.¹⁵⁰ Copyright purports not to protect ideas or information as such, only the expression of ideas or information.¹⁵¹ When compared to copyright, a contract places the owner in a much stronger position but it does not cover all aspects of copyright which might be helpful to protect intellectual property assets. The protection of property assets addresses the

¹⁴⁶ WM Landes, RA Posner, *The Economic Structure of Intellectual Property Law* (The Belknap Press of Harvard University Press 2003) for example – protection against infringement of Copyright at 71 and protection against infringement of Patent at 295 [hereafter Landes, RA Posner, *The Economic Structure of Intellectual Property Law*].

¹⁴⁷ See this Chapter at 1.6.2. Link between protection and investment.

¹⁴⁸ H Beverley-Smith, *The Commercial appropriation of Personality* (Cambridge University Press 2002) 287.

¹⁴⁹ J Boyle, *The Public Domain: Enclosing the Commons of the Mind* (Yale University Press 2008) 191.

¹⁵⁰ CDPA 1988, ss 16(1)(a), 17.

¹⁵¹ Davison, *The Legal Protection of Databases* 17.

investment beneath the creation.¹⁵² Therefore, the comparison of copyright and contract shows the need for a bundle of intellectual property law concepts; because of this, this thesis proposes a bundle of protection rights and mechanisms in order to protect databases.

1.2.2. Investment in making a database

The word 'investment' concerns the action or process of investing productive assets for profit.¹⁵³ Money is a limited resource and should be invested carefully, especially by developing countries. Investment in making a database requires not just money, but also a combination of knowledge, skill and labour all of which come under the term human investment.¹⁵⁴ This means that the investment in digital databases may be financial or non-financial. Therefore, it is important to examine the nature of investments when making a database in order to put forward the arguments relating to protection of digital databases in Sri Lanka.¹⁵⁵

Investment in relation to databases can be divided into many parts. Some aspects of investment are *ex ante* to the process of making databases and

¹⁵² See this Chapter at 1.6.2. Link between protection and investment.

¹⁵³ OxfordDictionaries:Online
<http://oxforddictionaries.com/view/entry/m_en_gb0419740#m_en_gb0419740> accessed 17 March 2011; LV Setten, *The Law of Institutional Investment Management* (OUP 2009) 6; J Black *et al.*, *A Dictionary of Economics* (3rd edn, Oxford University Press 2009) 242 [hereafter Black *et al.*, *A Dictionary of Economics*].

¹⁵⁴ *British Horseracing Board v William Hill* [2001] RPC 612, *Group Miller Freeman v Tigest Communication*, TGI Paris 22 June 1999 [1999] PIBD cited in Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 74; *Football Dataco Ltd and others v Sportradar GmbH and another* [2012] EWHC Ch 1185 (per Floyd J).

¹⁵⁵ P Vandoren, 'Copyright and related rights in the Information Society' in PB Hugenholtz (ed), *The Future of Copyright in a Digital Environment* (Kluwer Law International 1996) 156.

others are *ex post*. The investment made towards obtaining the data and verification of the preliminary work of a database can be considered as investment prior to making a database, while other investment such as maintenance and improvements can be considered as an investment after the making of a database. Investment in the presentation of data comes under both these categories. As a legal requirement, there should be substantial investment in obtaining, verifying or presenting the contents for confirmation of a proprietary right in a database.¹⁵⁶ The investment can be financial or can be associated with the time, energy or efforts devoted to making the database.¹⁵⁷ This shows that the evaluation of investment can be quantitative and/or qualitative. The amount of money and/or time invested in the database can be regarded as a quantitative investment, while effort and/or energy invested in the database can be considered as a qualitative investment. Qualitative or quantitative investment does not refer to the quality of data or quantity of data invested in the database. Database investment refers to the enhancement of value of data in the database by the particular investment. In other words, the investment must be creative and it should enhance the value and/or usefulness of data in the database. Copyright is a property right which is given to mental labour¹⁵⁸ or intellectual creative labour¹⁵⁹ of authors or creators of such work.

¹⁵⁶ J Carp, 'Employment: Time to get LinkedIn' (July 2010) 921/02 NLJ 160; Copyright and Rights in Databases Regulations 1997, SI1997/3032, reg. 13(1).

¹⁵⁷ *British Horseracing Board Ltd v William Hill Organisation Ltd* (C-203/02) [2004] ECR I-10415, [2005] 1 CMLR 15; *Football Dataco Ltd and others v Sportradar GmbH and another* [2012] EWHC Ch 1185, [2012] 3 CMLR 18 at 436; Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 73.

¹⁵⁸ B Sherman, L Bently, *The Making of Modern Intellectual Property Law-The British Experience, 1760-1911*(Cambridge University Press 1999) 10.

¹⁵⁹ HA Deveci, 'Databases: Is *Sui Generis* a Stronger Bet than Copyright?'(June 2004) 12/2 IJLIT 178.

This reflects the non-conventional interpretation of investment¹⁶⁰ and the contribution which can be fixed with the *sui generis* right protection.¹⁶¹

In view of the above, the basis of investment can be observed in any kind of database around the world as well as within Sri Lanka. The rapid development of Sri Lanka necessitates both domestic and foreign investment. Such investments are essential for future development goals.¹⁶² Therefore, providing protection mechanisms on digital databases protects the existing investment and also attracts future investors to the field.

¹⁶⁰ Black *et al.*, *A Dictionary of Economics* 242.

¹⁶¹ See Chapter 6.

¹⁶² Central Bank of Sri Lanka, 'Recent Economic Developments Highlights of 2010 and Prospects for 2011'(2011) CBSL (Internet)
<http://www.cbsl.gov.lk/pics_n_docs/10_pub/docs/efr/recent_economic_development/Red2010/Red2010e/red_2010e_index.htm> accessed 17 March 2011.

1.3. Arguments

The inappropriateness and inadequacy of existing database protection mechanisms in Sri Lanka are the driving force of this research. The IP Act of 36/2003/SL provides protection for databases; however, it does not provide sufficient legal framework for protection of digital databases. In contrast in other jurisdictions for instance in the EU the Database Directive,¹⁶³ in the UK the Copyright and Rights in Databases Regulations,¹⁶⁴ provide arguably sufficient legal framework for databases.¹⁶⁵ This lack of legal protection in digital databases in Sri Lanka affects its attractiveness to foreign and domestic investments, especially in the digital data field, and in a wider way, affects the development of the country.

Computer programs in digital databases enhance the value and/or usefulness of data.¹⁶⁶ This function needs to be identified in order to protect the investment beneath it. The digital nature of databases and the involvement of computer programs have not been sufficiently addressed in most previous research.¹⁶⁷ Previous research has revealed the fact that the protection of digital databases

¹⁶³ Council Directive 96/9 EC(OJ L 077/20).

¹⁶⁴ Copyright and Rights in Databases Regulations 1997, SI1997/3032.

¹⁶⁵ Council Directive 96/9 EC(OJ L 077/20), art. 7; Commission of the European Communities, 'Green Paper on Copyright and the Challenge of Technology - Copyright Issues Requiring Immediate Action' COM (88) 172 final, para 6.4.7[hereafter COM (88) 172 final]; *British Horseracing Board Ltd and Others v William Hill Organization Ltd*, ECJ case C-203/02, 09 Nov. 2004 ; *Fixtures Marketing Ltd v Oy Veikkaus Ab*, ECJ case C-45/02, 09 Nov. 2004; *Fixtures Marketing Ltd. v Svenska Spel AB*, ECJ case C-338/02, 09 Nov. 2004; *Fixtures Marketing Ltd v Organismos prognostikon agonon podosfairou AE*, ECJ case C-444/02, 09 Nov. 2004.

¹⁶⁶ See this Chapter at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

¹⁶⁷ See this Chapter at 1.6.5. Previous research carried out in this area and 1.6.5.1. Issues that have not been considered in previous research.

is a different concept compared to the conventional type of protection under intellectual property law.¹⁶⁸ It has been argued that the specific legal protection of digital databases would be the best mechanism rather than the protection mechanism which comes with the other intellectual property protection. This argument is examined in this study while discussing other existing intellectual property protection mechanisms.¹⁶⁹

In Sri Lanka as well as in the UK, a compilation of data/information database receives copyright protection.¹⁷⁰ This protection has a long history and has been used for many different types of data compilations such as lists of share prices,¹⁷¹ lists of railway stations¹⁷² and lists of football coupons.¹⁷³ Although it has a long history and covers different areas of databases, the effectiveness of copyright protection has been disputed.¹⁷⁴ Comparatively, US databases receive very little protection under copyright law.¹⁷⁵ This shows the controversial use of copyright as a database protection mechanism. These controversial

¹⁶⁸ See this Chapter at 1.6.5. *ibid.*, and 1.6.5.1. *ibid.*; Conley *et al.*, 'Database Protection in a Digital World' at paras 1, 12 and 61.

¹⁶⁹ See this Chapter at 1.5. *supra* n.166, and Chapter 3.

¹⁷⁰ In Sri Lanka, IP Act of 36/2003/SL, s 7(1)(b); In the UK, CDPA 1988, s 3(1)(a).

¹⁷¹ *Exchange Telegraph Co Ltd v Gregory & Co* (1896) 1QB 147.

¹⁷² *Blacklock v Pearson* (1915) 2Ch 376.

¹⁷³ *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (1964) 1 WLR 273.

¹⁷⁴ Australian case, *Telstra Corporation Limited v Phone Directories Company Pty Ltd* [2010] FCA 44.

¹⁷⁵ *Feist Publications Inc v Rural Telephone Service Company Inc* 499 US 340 (1990).

issues will be examined in relation to the experiences and needs of the Sri Lankan context.¹⁷⁶

The other main argument arises from patent protection. As mentioned before,¹⁷⁷ patent protection is more controversial when it concerns digital formats, especially computer programs.¹⁷⁸ The value and/or usability of data in digital databases is enhanced by computer programs. Computer programs manipulate data in databases.¹⁷⁹ Some computer programs are particular to a database and cannot stand alone. As a mechanism, computer programs consist of instructions which are written in a specific language and perform a specific task in the digital format. Copyright does not explicitly set out these mechanisms as patent law does. Copyright is principally used to prevent the unlawful copying of printed or published material. There is a need for a discussion on patent protection in relation to the functions of digital databases; this discussion will be had in Chapter 3.

Among existing database protection mechanisms, contracts provide a comparatively strong legal structure. Although the contractual parties to a contract can easily be bound by the contractual terms and conditions, the liability cannot be extended to misuse of a database by a third party.¹⁸⁰

¹⁷⁶ See Chapter 2 generally and at 2.4. The underlying computer program - issues of originality, 2.4.1. Originality of computer programs in digital databases and 2.5.4. Originality.

¹⁷⁷ See this Chapter at 1.1.4. Reasons for research into digital database protection.

¹⁷⁸ *Aerotel Ltd v Telco Holdings Ltd Macrossan's Patent Application* (No.0314464.9) 2007] Bus. LR 634; *Symbian Ltd v Comptroller General of Patents, Designs and Trade Marks* [2008] EWCA Civ 1066.

¹⁷⁹ Herr, 'Is the *Sui Generis* Right a Failed Experiment?' at 29.

¹⁸⁰ Davison, *The Legal Protection of Databases* 40.

Otherwise, when drafting a contract for the exploitation of databases, there may be some limitations on the owners' ability to make restrictions on the usage of a database. For example, terms of contract which attempt to restrict certain rights in the Database Regulations¹⁸¹ are void. Generally, all terms and liabilities imposed may need to comply with competition law.¹⁸² On the other hand, as previously mentioned,¹⁸³ contract protection is problematic in its function in digital databases. In these contracts, i.e., standard form contracts or adhesion contracts, database owners and authors provide the terms and conditions of the contract and subsequently users have to accept or decline them.¹⁸⁴ Database users are left without the option of negotiating the terms and conditions of the contract.¹⁸⁵ This means that the ideal basis of an agreement, the 'meeting of the minds' (*consensus ad idem*), is not achieved.¹⁸⁶ This disadvantage of contract protection of digital databases needs to be addressed through research to see if investment in digital databases can be protected.¹⁸⁷

¹⁸¹ Copyright and Rights in Databases Regulations 1997, SI1997/3032.

¹⁸² Council Directive 96/9 EC (OJ L 077/20), art. 13.

¹⁸³ See this Chapter at 1.1.4. Reasons for research into digital database protection.

¹⁸⁴ See Chapter 4 at 4.2. Standard Form / Adhesion contracts.

¹⁸⁵ *Armendariz v Foundation Health Psychcare Serv.* 24 Cal. 4th 83 (2000); *Flores v Transamerica HomeFirst, Inc.*, 93 Cal.App.4th 846 (2001); *Craig Comb, et al. v PayPal, Inc.* 218 F. Supp. 2d 1165 (ND Cal. 2002).

¹⁸⁶ MR Cohen, 'The Basis of Contract' (February 1933) 46/4 HLR 553 at 562, 575; See Chapter 4 at 4.2.1. Meeting of the minds (*consensus ad idem*).

¹⁸⁷ See Chapter 4 at 4.2.2. Digital meeting of the minds.

Through the analysis of the above mentioned arguments, this study will focus on the protection of digital databases in Sri Lanka.¹⁸⁸ The ideal legal regime that will be constructed will mainly be based on the copyright protection and the *sui generis* right protection as these comply with the requirements of investment in the arena of digital databases in Sri Lanka.

1.4. Chapter outline

This study is made up of an introduction (this Chapter), five chapters and then a conclusion in Chapter 7. Chapter 2 and Chapter 6 discuss the main arguments of this research: copyright protection of databases and the protection by the *sui generis* right respectively. The thesis considers the functions of computer programs in digital databases. This functionality explains the enhancement of value and/or usefulness of data. Identification of this process helps to protect the investment in computer programs in digital databases. In the context of a developing country, the investment in computer programs for digital databases needs to have strong protection in order to attract investment.¹⁸⁹ Patentability of computer programs is important for the protection of databases and this is examined in Chapter 3. Chapter 4 considers the adequacy of contracts as a protection mechanism for digital databases. Chapter 5 examines the applicability of unfair competition law and misappropriation.

¹⁸⁸ See Chapter 7 generally and especially at 7.4. Outline of the proposed system, 7.5. The *sui generis* right in the light of the proposed system and 7.6. Relationship between copyright, patent, contract, unfair competition/misappropriation and *sui generis* rights.

¹⁸⁹ A Imam, 'How Patent Protection Helps Developing Countries' (2005) 33 AIPLAQJ 377 at 389 [hereafter Imam, 'How Patent Protection Helps Developing Countries'].

The introductory chapter, Chapter 1, provides background on database protection and its availability in Sri Lanka. This Chapter demonstrates the debatable issues of existing database protection mechanisms both at international and domestic levels. As this research compares selected legal regimes and considers the way that intellectual property law operates under those systems, this thesis can be said to use comparative and theoretical analysis. The way this is achieved is examined in the methodology section which is a subsection of this introductory chapter.¹⁹⁰ There are two strands to this thesis. One is that intellectual property protects investment and helps to attract future investment;¹⁹¹ the other identifies the enhancement of value and/or usefulness of data in digital databases due to the operation of installed computer programs.¹⁹² These two ideas are discussed in Chapter 1 as they are the central pillars for the arguments in the rest of the thesis.

Chapter 2 examines the protection provided by copyright. After tracing the history of copyright laws, this Chapter discusses the existing legal regimes which use copyright protection and examines whether this protection is sufficient to protect investment in databases. Over-protection and under-protection can be seen in these mechanisms. Sometimes, legal measures stop the enhancement or development of databases, while other measures do not protect databases enough. The EU has introduced a “specific right to protect databases, whereas the rest of the world relies either on sweat of the brow copyright or on unfair competition, contract, technological protection measures

¹⁹⁰ See this Chapter at 1.2. Methodology.

¹⁹¹ See this Chapter at 1.6.2. Link between protection and investment.

¹⁹² See this Chapter at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

(TPM) and the TPM anti-circumvention laws”.¹⁹³ Theoretically, copyright is comprised of two prerogatives, economic (reflecting the reward argument) and moral (reflecting the personality rights argument).¹⁹⁴ Davison argues that “the economic rights of an author and their moral rights are inextricably intertwined”.¹⁹⁵ Therefore, economic and moral rights are examined in this Chapter. However, the aim of this examination is to investigate the link between copyright and protection of investment. The comparative analysis focuses on the legal mechanisms of the UK, the EU, and the US. Therefore, copyright protection in each of these systems is examined in order to build up the proposed legal regime in Sri Lanka.

The third Chapter examines the patentability of digital databases. The basic structure of a database consists of data and computer programs which manipulate such data in the database system.¹⁹⁶ Data or structures, on their own, do not make up a database. There should be an investment in data to be considered a database and this investment has traditionally been protected by copyright or neighbouring rights.¹⁹⁷ The combination of data and structure creates a digital database. The structure enhances the value and/or usefulness of data in databases. This process in digital databases is done by computer programs.¹⁹⁸ Although patentability of computer programs is still a controversial

¹⁹³ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 3.

¹⁹⁴ Derclaye, *ibid.*, 11,12.

¹⁹⁵ Davison, *The Legal Protection of Databases* 118.

¹⁹⁶ Conley *et al.*, ‘Database Protection in a Digital World’ at para 13; See this Chapter at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

¹⁹⁷ Derclaye, *supra* n.193, 10.

¹⁹⁸ Conley *et al.*, *supra* n.196, at para 13.

issue, this research examines the potential for patentability of computer programs for the purpose of protecting digital databases. The reason behind this is that the patent provides acceptable level of protection which attracts investment to developing countries.¹⁹⁹ Nevertheless, it must be noted here that this effort of introducing patentability of computer programs is applicable only for computer programs contained in digital databases and not for the whole computer program field. To build up the main arguments on this topic, the third Chapter first examines the basic construction of digital databases. In doing so, the nature of computer programs and their relevance to digital databases is discussed. After making observations on the purpose of patents, this Chapter focuses on their separate elements. Each of these elements will be compared with the structure of computer programs and their functions in digital databases.

Contracts are one of the strongest database protection mechanisms. These can regulate the access and use of databases.²⁰⁰ Chapter 4 of this study discusses contract law as a protection mechanism of digital databases and it does this by looking at its advantages and disadvantages. The protection found in contracts is simple and easy to use. Availability and flexibility of use enables there to be a good relationship between the owner or author and the users of the database. For example, uses can be categorised as educational and commercial and can be charged differently. However, this protection extends only to contractual parties. In the event of releasing data to a third party, it is impossible or difficult

¹⁹⁹ AM Imam, 'How does patent protection help developing countries?' (2006) 3 IRIPCL 245 at 254.

²⁰⁰ Davison, *The Legal Protection of Databases* 40.

to enforce contractual rights against this third party.²⁰¹ Involvement of third parties is common in digital databases because of the online environment and its digital format.

In relation to the standard form contracts or adhesion contracts, contract protection is problematic. The online digital database contracts are often available in the forms of the aforesaid. In these digital database contracts, the second party, i.e. database users, are unable to negotiate the terms and conditions of the contract.²⁰² This means that there is no 'meeting of the minds' (*consensus ad idem*) which is the ideal basis of an agreement.²⁰³ This thesis suggests the notion of a 'digital meeting of the minds'²⁰⁴ as a way of minimising the negative effects/disadvantages that lie with online digital database contracts.

Chapter 5 examines the validity of the concept of unfair competition and misappropriation as a mechanism for the protection of digital databases. In the current context, especially within the purview of developing countries, digital databases are considered as economic assets.²⁰⁵ The concepts of unfair competition and misappropriation concern the economic aspects of databases. This helps to address the issues with investment in digital databases. The

²⁰¹ Davison, *ibid.*

²⁰² See Chapter 4 at 4.2. Standard Form / Adhesion contracts.

²⁰³ MR Cohen, 'The Basis of Contract' (February 1933) 46/4 HLR 553 at 562, 575; See Chapter 4 at 4.2.1. Meeting of the minds (*consensus ad idem*).

²⁰⁴ See Chapter 4 at 4.2.2. Digital meeting of the minds.

²⁰⁵ See *inter alia* World Intellectual Property Organization, 'Issues for Developing Countries in the Digital Environment' (Internet) <http://www.wipo.int/copyright/en/ecommerce/ip_survey/chap5.html> accessed 20 June 2013.

purpose of these laws is to prevent abuse of market power and illegitimate acquisition of the same.²⁰⁶ As the concept of competition law is relatively undeveloped in Sri Lanka, the purpose of this Chapter is to find the right competition law model that best suits digital database protection in Sri Lanka. In doing so, this Chapter examines the instances when existing unfair competition and misappropriation laws are used as protection mechanisms for databases. Some commentators, such as Bastian,²⁰⁷ Mallet-Poujol and Pollaud-Dublin²⁰⁸ suggest that “unfair competition is a more flexible and equitable solution than an intellectual property right and better respects the public domain”.²⁰⁹ However, Derclaye argues that “all of those commentators hardly give reasons or develop their arguments”.²¹⁰ This shows the controversy surrounding this topic and the need for further research in this area of law. In this Chapter, this controversy is addressed and the results become part of the proposed database protection regime in Sri Lanka.

The main objective of this research is to find an acceptable legal mechanism for the protection of digital databases in Sri Lanka in order to attract investment to the digital database arena. The proposed system should be a bundle of existing legal components of other legal regimes from around the world. The structure of this system is a form of *sui generis* rights in databases. Chapter 6 is dedicated to a discussion on this topic. The *sui generis* form of protection is the objective

²⁰⁶ Davison, *The Legal Protection of Databases* 43.

²⁰⁷ M Bastian, ‘Protection of “noncreative” databases: harmonization of United States, foreign and international law’ (1999) 22 BCICLR 425.

²⁰⁸ Cited in Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 256.

²⁰⁹ Derclaye, *ibid.*, 256.

²¹⁰ Derclaye, *ibid.*

of the Database Directive²¹¹ and it attempts to strike a balance between the rights of database makers and users. Furthermore, the Directive attempts to identify the boundaries between copyright protection of databases and the *sui generis* right protection. In contrast to the situation in the EU, US databases do not receive protection via the *sui generis* right. Congress has regularly discussed the possibility of *sui generis* rights in US database components, but all the proposals have been rejected for different reasons. The *sui generis* right protection mainly addresses the issue of investment in databases. This is the main reason for selecting *sui generis* right protection for the proposed Sri Lankan digital databases regime.

Concluding remarks in Chapter 7 of the study are mainly divided into two parts. The first part summarises all the discussions and suggests proposed protection for digital databases in Sri Lanka. This discussion includes the ways that experiences at both international and domestic levels can be used in the protection mechanism. The proposed mechanism is a bundle of rights and/or protection mechanisms and it will function as a *sui generis* rights regime. As part of the proposed mechanism, copyright protection and patent protection are considered as ways of protecting investment. The contract protection system addresses the relationship between database author and database users. Unfair competition and misappropriation laws further fill the gaps which are left by the previously mentioned concepts. The *sui generis* database rights compile all the protection concepts discussed above. The anti-competitive nature of the *sui generis* right system confirms the need for unfair competition and misappropriation laws. Hence, the proposed *sui generis* right system further

²¹¹ Council Directive 96/9 EC (OJ L 077/20).

confirms the need to strike a balance between authors and users, which a contract protection system tries to do to a certain extent.

The ultimate goal intended to achieve from this research is to find ways to attract investment to the digital database arena in Sri Lanka. To do this, the database owner needs to prove qualitatively and/or quantitatively a substantial investment opportunity in either the obtaining, verification or presentation of the contents in order to claim *sui generis* protection. This further prevents extraction and/or re-utilisation of the whole or substantial parts of the database content. Functions of this mechanism are subject to legal rights in Sri Lanka. Introducing a mechanism along with the concept of the *sui generis* right protection helps strike a balance between various social interests. This helps to strike a balance between the economic interests and public interests of database owners or authors and users, which is one of the basic ways of attracting investors to the digital database field. This further helps to develop the digital culture of the country.

1.5. Ways that digital databases enhance the 'value and/or usefulness'²¹² of data

Digital databases create new knowledge which arises from the value enhanced data and/or usefulness enhanced data. These data are generated by the process of data manipulation in digital databases. Digital databases use existing data in order to bring add value and/or add usefulness. John Locke argues that "ideas come from the combination of existing thoughts. These thoughts arise from the observation of events".²¹³ This old argument is relevant event to today's context because it highlights the data making process of digital databases. The word 'ideas' in John Locke's argument represents the value of enhanced data and/or usefulness enhanced data in digital databases. The word 'combination' in his argument represents the computer manipulation while existing thoughts denote the existing data. Human knowledge starts from the

²¹² Throughout this thesis, the term 'value and/or usefulness' can be seen very often. The concepts of value and usefulness have various and distinctive meanings and the thesis expects to employ the both terms together. Value of the data in digital databases consists in monetary value, economic value and sociological value. According to the Oxford dictionary, value means "the importance, worth, or usefulness of something, estimate the monetary worth of, consider (someone or something) to be important or beneficial". And usefulness means "the quality or fact of being useful". [Oxford Dictionaries, <<http://www.oxforddictionaries.com/definition/english/value>>and <<http://www.oxforddictionaries.com/definition/english/usefulness?q=usefulness>> accessed 2 November 2013]. The thesis expects meaning of this term 'value and usefulness' and 'value or usefulness' can be driven from the result of the manipulation of data in digital databases. In the event the term means only the 'value and usefulness' then data should acquire both value and usefulness together for qualifying for the expected meaning of the thesis . If on the other hand the term were to mean only 'value or usefulness' then data should obtain either value or usefulness and the term does not mean and include anything that has both the value and usefulness together. The thesis would thus deviate from its intended path at this point as it expects to cover the all meanings of value and usefulness either together or separately.

²¹³ J Locke, *Essays on Human Understanding* (William Tegg & Co (1880) 1689) Book IV Chapter I at §8 cited in JGH Griffin, 'The Copyright Balancing Exercise in the Digital Era: A Proposal for Reform' (PhD Thesis / School of Law, University of Bristol, September 2008) at 140 [hereafter Griffin, 'The Copyright Balancing Exercise in the Digital Era: A Proposal for Reform']; See *inter alia* TM Knox (tr), *Hegel's Philosophy of Right* (OUP 1942) First Part, (i) Property 40ff.

facts, i.e. from the data. Mere data on its own might not be useful unless it is processed. Hayek notes that, “[A]n essential part of the phenomena with which we have to deal: the unavoidable imperfection of man’s knowledge and the consequent need for a process by which knowledge is constantly communicated and acquired”.²¹⁴

Meaningful analysis and logical interpretations create processed, useful knowledge. Manual analysis and interpretations have traditionally enhanced the value and/or usefulness of data.²¹⁵ Data needs to be compiled in order to allow for substantial analysis and interpretation. The compilation²¹⁶ of mere data does not equate to a database according to this work. Compilation of data should enhance its value and/or usefulness in order for it to be treated as a database under the proposed protection mechanism outlined in this thesis.

Fayyad *et al.*, state that, “[k]nowledge is the end product of a data-driven discovery” in databases.²¹⁷ Knowledge is a data pattern and discovered knowledge is the output or enhanced knowledge from data pattern which can be generated by a computer program.²¹⁸ Computer programs analyse data sets

²¹⁴ FA Hayek, ‘The Use of Knowledge in Society’(September 1945) 35/4 AER 519 at 530 [hereafter Hayek, ‘The Use of Knowledge in Society’].

²¹⁵ Fayyad *et al.*, ‘From data mining to knowledge discovery in databases’ at 37.

²¹⁶ “A ‘compilation’ is a work formed by the collection and assembling of pre-existing materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship.” 17 U.S.C. § 101 (1988) cited in JF Hayden, ‘Copyright Protection of Computer Databases After *Feist*’ (1991-1992) 5 HJLT 215 at 218.

²¹⁷ Fayyad *et al.*, *supra* n.215, at 39.

²¹⁸ V Devedzic, ‘Knowledge Discovery and Data Mining in Databases’ FON - School of Business Administration, University of Belgrade, Yugoslavia (Internet) at 2 <http://pdf.aminer.org/000/261/294/knowledge_discovery_from_semi_structured_data_for_conceptual_organization.pdf> accessed 28 March 2013.

and generate patterns. In order to enhance its value, a database must have two elements:

1. Data - the data content of the database provides this element,²¹⁹ and,
2. An intelligent data tool - a computer program specially written for the particular database.²²⁰

In a digital database, the attached computer program²²¹ enhances the value and/or usefulness of data.²²² Conley *et al.*, note that:

“A database, or information system, contains two primary forms of digital property: raw data, which can be a source of knowledge or entertainment value, and tools, which are programs that can be used to communicate, store, or manipulate raw data. A fully developed database is an interrelated set of components capable of generating value from the collection, processing, merger, storage, or dissemination of data. In practice, databases are arrayed along a continuum according to where their primary value lies. At one end are those whose value depends on the data themselves. At the other end are those databases whose critical element is the system for manipulating the data. Most, of course, are found somewhere in the middle”.²²³

Therefore, the ability of digital databases to create²²⁴ or enhance value of data will depend on existing data, in the same way that financial institutions make

²¹⁹ Pattison, ‘The European Commission’s Proposal on the Protection of Computer Databases’ at 115; Conley *et al.*, ‘Database Protection in a Digital World’ at para 13.

²²⁰ Pattison, *ibid.*; Conley *et al.*, *ibid.*

²²¹ JF Hayden, *supra* n.216, at 215.

²²² “[T]he notion of finding useful patterns in data has been given a variety of names, including data mining, knowledge extraction, information discovery, information harvesting, data archaeology, and data pattern processing”. Fayyad *et al.*, *supra* n.215, at 39.

²²³ Conley *et al.*, *supra* n.219, at para 13.

²²⁴ *CCC Info. Serv. v MacLean Hunter Mkt. Reports* 44 F.3d 61, 63, 33 USPQ 2d (BNA) 1183, 1184 (2d Cir. 1994) cited in AC Sullivan, ‘When The Creative is the Enemy of the True: Database Protection in the U.S. and Abroad’ (Summer 2001) 29/3 AIPLAQJ 317 at 333;

money utilising existing money.²²⁵ Fayyad *et al.*, state that, “computers have enabled humans to gather more data than we can digest, it is only natural to turn to computational techniques to help us unearth meaningful patterns and structures from the massive volumes of data”.²²⁶ Such meaningful patterns and structures, which do not just ‘stir’ the data,²²⁷ enhance the value and/or usefulness of raw data.²²⁸ For example, a collection of customer shopping data does not provide any meaning or usefulness unless it is organised according to consumer behaviour patterns.

Computer programs in digital databases work out the substantial patterns and structures according to the requirements of the owner or author and the demands of the users. For example, if you type the word ‘database’ into the search field in *Westlaw* and narrow the search to the year 2013, to include only cases, then the computer program will compile all the available cases that include the word ‘database’ in 2013. The installed computer program has done this in a matter of seconds and brought usefulness to the list of cases at the demand of the user. Comparatively, the human hand and brain may take many hours or even days to complete this task. Therefore, the difference between human involvement and computer involvement adds value to the data content of digital databases.

Griffin, ‘The Copyright Balancing Exercise in the Digital Era: A Proposal for Reform’ at 185; Herr, ‘Is the *Sui Generis* Right a Failed Experiment?’ at 29.

²²⁵ DM Nichols, *Modern Money Mechanics: A Workbook on Bank Reserves and Deposit Expansion* (Federal Reserve Bank of Chicago 1961)(rev edn by Anne Marie L Gonczy 1992) (Internet) at 3 <<http://bookos.org/book/515467/d81c9a>> accessed 22 July 2013.

²²⁶ Fayyad *et al.*, ‘From data mining to knowledge discovery in databases’ at 38.

²²⁷ MJ Norton, ‘Knowledge Discovery in Databases’ (Summer 1999) 48/1 LT- JHUP 9 at 11.

²²⁸ Conley *et al.*, *supra* n.219, at para 14.

The thesis identifies the functions of computer programs²²⁹ in digital databases as they are written specifically for the purpose of the particular databases and, therefore, enhance the value and/or usefulness of the data. “[T]h automated nature of databases enhances their functionality and places further strain on the dubious notion that selection and arrangement are subjective”.²³⁰ This idea was accepted in *Feist Publications, Inc. v. Rural Tel. Serv. Co.*²³¹ A computer program possesses the ability to identify automatically a similar character contained in a different collection of characters that have been fed to the digital databases.²³² For example, providing a search command such as database (this is a character) in a legal resource digital database, such as *Westlaw*, which consists of number of different characters returns all the legal resources (cases, journal articles, legislation/statutes, and current awareness) which include the word database. This process of identification of similar characters has the ability to show useful patterns. In this way, digital databases can offer new knowledge and useful applications²³³ from their data contents due to the operation of installed computer programs.

²²⁹ See Chapter 3 at 3.3. The nature of a computer program and its relevance to the proposed system.

²³⁰ JF Hayden, ‘Copyright Protection of Computer Databases After *Feist*’ (1991-1992) 5 HJLT 215 at 229.

²³¹ 499 US 340 (1991).

²³² H Carr, R Arnold, *Computer software: Legal protection in the United Kingdom* (2nd edn, Sweet & Maxwell 1992) 2-3 [hereafter Carr, R Arnold, *Computer software: Legal protection in the United Kingdom*]; M Goebel, L Gruenwald, ‘A Survey of Data Mining and Knowledge Discovery Software Tools’ (June 1999) 1/1 ACM SIGKDD-EN 20 at 20 [hereafter Goebel *et al.*, ‘A Survey of Data Mining and Knowledge Discovery Software Tools’].

²³³ Tessensohn, ‘The Devil’s In The Details’ at 442.

The process of making or creating useful knowledge or potential knowledge from raw data is known as Knowledge Discovery in Databases (KDD).²³⁴ KDD creates investment opportunities as it is a commercial notion. Norton observes that:

“Knowledge discovery in databases revolves around the investigation and creation of knowledge, processes, algorithms, and mechanisms for addressing the retrieval of potential knowledge. An important component of this activity is identification of patterns or trends, from metadata through, and including, the semantic level, which suggest an entity’s relationships. KDD techniques have been successful with large-scale scientific databases, notably in astronomy to classify sky objects. In addition, techniques have been used in medical, environmental, political, and census research. Other applications have been made with industrial and business-oriented databases in marketing, finance, manufacturing, and Internet agents”.²³⁵

The KDD process can commonly be seen as data mining: “Knowledge discovery and data mining are techniques to discover strategic information hidden in very large databases”.²³⁶ Data mining refers to “the application of specific algorithms²³⁷ for extracting patterns from data”.²³⁸ This process helps to ensure that knowledge is derived from KDD. By including data mining, the overall KDD process can be identified as:

²³⁴ Conley *et al.*, ‘Database Protection in a Digital World’ at para 14.

²³⁵ MJ Norton, ‘Knowledge Discovery in Databases’ (Summer 1999) 48/1 LT-JHUP 9 at 10.

²³⁶ Goebel *et al.*, ‘A Survey of Data Mining and Knowledge Discovery Software Tools’ at 20.

²³⁷ M Punniyamoorthy, JJ Thoppan, ‘ANN-GA based model for stock market surveillance’ (2013) 20/1 JFC 52 at 52.

²³⁸ Fayyad *et al.*, ‘From data mining to knowledge discovery in databases’ at 39.

“

- Developing an understanding of the application domain and the goals of the data mining process
- Acquiring or selecting a target data set
- Integrating and checking the data set
- Data cleaning, pre-processing, and transformation
- Model development and hypothesis building
- Choosing suitable data mining algorithms
- Result interpretation and visualization
- Result testing and verification
- Using and maintaining the discovered knowledge ”²³⁹

The outcome of this process brings new value and/or usefulness to the raw data.²⁴⁰ Goebel *et al.*, observe that there is still confusion between the terms knowledge discovery and data mining. They further note that:

“Often these two terms are used interchangeably. We use the term KDD to denote the overall process of turning low-level data into high-level knowledge. A simple definition of KDD is as follows: Knowledge discovery in databases is the nontrivial process of identifying valid, novel, potentially useful, and ultimately understandable patterns in data”.²⁴¹

This study respects this interchangeable usage of the terms as both of them denote the involvement of computer programs in the process of enhancement

²³⁹ Goebel *et al.*, ‘A Survey of Data Mining and Knowledge Discovery Software Tools’ at 21; U Fayyad, *et al.*, ‘The KDD Process for Extracting Useful Knowledge from Volumes of Data’ (November 1996) 39/11 CACM 27 [hereafter Fayyad *et al.*, ‘The KDD Process for Extracting Useful Knowledge from Volumes of Data’]; Fayyad *et al.*, ‘From data mining to knowledge discovery in databases’ at 39; G Piatetsky-Shapiro *et al.*, ‘An Overview of Issues in Developing Industrial Data Mining and Knowledge Discovery Applications’ in J Han, E Simoudis (eds), *Proceedings of the Second International Conference on Knowledge Discovery and Data Mining (KDD-96)* (American Association for Artificial Intelligence 1996) 89 at 90 <<http://www.aaai.org/Papers/KDD/1996/KDD96-015.pdf>> accessed 3 April 2013 [hereafter Piatetsky-Shapiro *et al.*, ‘An Overview of Issues in Developing Industrial Data Mining and Knowledge Discovery Applications’]; B Koops, *The Crypto Controversy: A Key Conflict in the Information Society* (PhD Thesis/Tilburg University 1998, Kluwer Law International 1999) at 225.

²⁴⁰ Conley *et al.*, ‘Database Protection in a Digital World’ at para 14.

²⁴¹ Goebel *et al.*, *supra* n.239, at 21. These authors have based on U Fayyad, *et al.*, ‘From Data Mining to Knowledge Discovery: An Overview’ in U Fayyad, *et al.*, (eds), *Advances in Knowledge Discovery and Data Mining* (MIT Press 1996) 1-36.

of value and/or usefulness of data in digital databases. Data mining is itself a function of a computer program which provides the processing capability to transfer unstructured data into structured data patterns in order to bring meaningful interpretations.²⁴² This meaningfulness comes through the data patterns that are comprehensible to the user.²⁴³ These effective interpretations add “value and money in terms of use”²⁴⁴ to the data in digital databases.

However, this value-adding process has not been given meaningful consideration in court decisions. For instance, in *CDN Inc. v. Kapes*,²⁴⁵ the plaintiff published “the Coin Dealer Newsletter which had a weekly report of wholesale prices for collectible American coins. The newsletter, or ‘greysheet’ as it is known in the industry, included prices for virtually all collectible coins and [was] used extensively by dealers”.²⁴⁶ The defendant, Kenneth Kapes, developed an Internet site and digital database, displaying a list of current retail prices generated by a computer program. These retail prices were generated through the wholesale prices which were directly collected from greysheet. However, the Ninth Circuit found for CDN²⁴⁷ and observed that values

²⁴² M Punniyamoorthy, JJ Thoppan, ‘ANN-GA based model for stock market surveillance’ (2013) 20/1 JFC 52 at 54.

²⁴³ V Devedzic, ‘Knowledge Discovery and Data Mining in Databases’ FON - School of Business Administration, University of Belgrade, Yugoslavia (Internet) at 2 *supra* n.218.

²⁴⁴ Tessensohn, ‘The Devil’s In The Details’ at 453; V Bange, J Sumpster, ‘Databases: treasure or curse?’ (2009) 4/9 WCRR 34; Pattison, ‘The European Commission’s Proposal on the Protection of Computer Databases’ at 113; Conley *et al.*, *supra* n.240, at paras 1-11; CR McManis, ‘Database Protection in the Digital Information Age’ (2001-2002) 7 RWULR 7 at 21 [hereafter McManis, ‘Database Protection in the Digital Information Age’].

²⁴⁵ 197 F.3d 1256 (9th Cir. 1999).

²⁴⁶ *CDN Inc. v. Kapes*, *ibid.*, at para 3 .

²⁴⁷ AC Sullivan, ‘When The Creative is the Enemy of the True: Database Protection in the U.S. and Abroad’ (Summer 2001) 29/3 AIPLAQJ 317 at 334.

consisting of wholesale prices were not mere facts and that they were, therefore, a compilation of data reaching the level of creativity and judgment which can be protected under copyright. The Ninth Circuit did not identify the concept of generated values which in this instance were generated by Kapes' developed Internet site. The computer program in this Internet site was written for the purposes of data mining and the KDD process. First this computer program has to build up the useful data pattern in order to use them in the KDD process which finally produces the current retail prices of the collectable coins. In this case the 'sweat of the brow' in the writing of such computer program was not appreciated by the Ninth Circuit. Therefore, in order to provide for a tailor made protection to digital databases it is important to find out the significance of generated value or usefulness of data in digital databases.

Knowledge discovery or adding value and/or usefulness to the data in databases can be defined as a discovery of useful information thanks to the automated process of computer programs; as Goebel and Gruenwald state: "Data mining is one step at the core of the knowledge discovery process, dealing with the extraction of patterns and relationships from large amounts of data".²⁴⁸ The data mining process and KDD is a direct result of investment at the expense of database owner.²⁴⁹ This investment involves input from humans (decision makers, management, entrepreneurs and professional program writers) and equipment (computer programs).²⁵⁰ The value and/or usefulness enhanced data becomes commercially valuable as it is new knowledge with a

²⁴⁸ Goebel *et al.*, 'A Survey of Data Mining and Knowledge Discovery Software Tools' at 24.

²⁴⁹ Hayek, 'The Use of Knowledge in Society' at 526-527.

²⁵⁰ See Chapter 6 at 6.3. Substantial investment.

high level of value and/or usefulness.²⁵¹ At this point, this process or function of enhancing the value or usefulness of digital databases needs to be identified and protected in order to attract investment.

1.6. The role of investment in database protection

1.6.1. The broad context of the problem

Data governs the world more than ever before.²⁵² “The economies of the First World are dominated by the creation, manipulation and use of information and the time it takes to do so”.²⁵³ Systematically gathered and manipulated information acquires a much higher value compared to mere data. Acquiring, collecting, organising, presenting, accessing and maintaining information enhances its usefulness and, therefore, adds value to the raw data.²⁵⁴ Digital databases, where most information is likely to be in digital format, possess a very high level of efficiency as the digital process is done by computer programs. This reflects and results in the economic power of the digital information which governs the information market: “These economies [or markets] do not suffer from a shortage of information; they suffer from the difficulties associated with collecting, organising, accessing, maintaining and

²⁵¹ Hayek, *supra* n.249, at 519-520.

²⁵² Tessensohn, ‘The Devil’s In The Details’ at 453; V Bange, J Sumpster, ‘Databases: treasure or curse?’ (2009) 4/9 WCRR 34; Pattison, ‘The European Commission’s Proposal on the Protection of Computer Databases’ at 113.

²⁵³ Davison, *The Legal Protection of Databases* 1.

²⁵⁴ *Football Dataco Ltd and others v Sportradar GmbH and another* [2012] EWHC Ch 1185, [2012] 3 CMLR 18 (per Floyd J); *British Horseracing Board Ltd and others v William Hill Organisation Ltd* (Case C-203/02) [2009] Bus. LR 932.

presenting it. Databases are designed to help deal with these difficulties”.²⁵⁵ Therefore, “databases are an indispensable tool in today’s knowledge-based economy and allow useful, fast and easy access to information”.²⁵⁶ This economic asset attracts investors to the field.²⁵⁷ Being an economic asset, it creates a profit-making system and competitiveness. However, the flow of investment depends on the profit which can be earned from a particular field.²⁵⁸ Economic and social factors direct the free movement of the database market and decide the profit. One of these factors is the law, as it links social and economic norms that provide the legal protection over the databases and that ultimately decide the number of database creators, owners, users and investors in the database field.²⁵⁹ Greater protection provides extra profits for inventors and investors.²⁶⁰ Therefore, the lack of an acceptable level of legal protection causes there to be a reduction in investment in the digital database field.²⁶¹

The well developed digital information market which consists of digital databases can still be often seen in the Western world, however, this market is

²⁵⁵ Davison, *supra* n.253, 1.

²⁵⁶ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 1.

²⁵⁷ T Cottier, M Foltea, ‘Global governance in intellectual property protection: does the decision-making forum matter?’ (2012) 3/2 WIPOJ 139 at 149; Conley *et al.*, ‘Database Protection in a Digital World’ at paras 1-11; Tessensohn, ‘The Devil’s In The Details’ at 453; V Bange, J Sumpster, ‘Databases: treasure or curse?’ (2009) 4/9 WCRR 34; Pattison, ‘The European Commission’s Proposal on the Protection of Computer Databases’ at 113; See this Chapter at 1.6.2. Link between protection and investment.

²⁵⁸ Black *et al.*, *A Dictionary of Economics* 362; The definition of Investment – “the action or process of investing money for profit”- Oxford Dictionaries <<http://oxforddictionaries.com/definition/english/investment>> accessed 2 January 2013.

²⁵⁹ L Lessig, *Code and other laws of Cyberspace* (Basic Books 1999) 3-8.

²⁶⁰ Landes, RA Posner, *The Economic Structure of Intellectual Property Law* 300.

²⁶¹ See this Chapter at 1.6.2.Link between protection and investment.

now moving eastwards, even though most Asian countries are still developing.²⁶² Sri Lanka is the one of the Asian developing countries where recent trends and government policies have been focused on developing the country as the knowledge hub of Asia.²⁶³ Therefore, the Internet and digital development have had a massive role in its development.²⁶⁴ As a developing country, Sri Lanka needs to attract investors in order to expedite its development process.²⁶⁵ The concept of investment largely depends on the profit to be generated therefrom which heavily relies on the protection of particular market.²⁶⁶ The protection can be afforded *inter alia* in the form of legal protection as “the instrumental value of law to development is now well established”.²⁶⁷ Protection encourages investment.²⁶⁸

²⁶² Asia Digital Marketing Association, *Asia Pacific Digital Marketing Year Book 2012* (Asia Digital Marketing Association, 2012) (Internet) <<http://www.asiadigitalmarketingyearbook.com/account/>> accessed 5 November 2012; UJ Orji, ‘An analysis of China’s regulatory response to cybersecurity’ (2012) 18/7 CTLR 212 at 212.

²⁶³ E-Government Policy of Sri Lanka-Information and Communication Technology Agency of Sri Lanka (ICTA) <<http://www.icta.lk/index.php>> accessed 2 January 2013.

²⁶⁴ Asia is the highest, 44.8%, in the world’s Internet usage when categorising according to the distribution by world regions. [India and China represent the vast majority of this figure and are the main foreign investors in Sri Lankan development.] Internet World Stats, based on International Telecommunications Union. <<http://www.internetworldstats.com/stats.htm>> accessed 15 March 2012.

²⁶⁵ Central Bank of Sri Lanka, ‘Recent Economic Developments- Highlights of 2012 and Prospects for 2013’ (2013) CBSL (Internet) Ch 8 - Financial Sector Developments and Stability, at 95 <http://www.cbsl.gov.lk/htm/english/10_pub/p_1.html> accessed 2 January 2013.

²⁶⁶ Black *et al.*, *A Dictionary of Economics* 362.

²⁶⁷ K Rittich, ‘The future of the law and development: Second generation reforms and the incorporation of the social’ in DM Trubek, A Santos (eds), *The New Law and Economic Development – A critical Appraisal* (Cambridge University Press 2006) 204; ME Katsh, *Law in a Digital World* (OUP 1995) 21.

²⁶⁸ Landes, RA Posner, *The Economic Structure of Intellectual Property Law* 222; Imam, ‘How Patent Protection Helps Developing Countries’ at 389; MW Smith, ‘Bringing Developing Countries’ Intellectual Property Laws to TRIPs Standards: Hurdles and Pitfalls Facing Vietnam’s Efforts to Normalize an Intellectual Property Regime’ (1999) 31 CWRJIL 211

1.6.2. Link between protection and investment

Since the end of the twentieth century, protection has been used in the information-based economy in order to gain competitive advantage²⁶⁹ in the world market.²⁷⁰ The reason behind the connection between protection and investment is that “especially electronic databases are big business ... because compilations require enormous investments of money, time, and labor, the developers of compilations argue that strong [copyright protection] intellectual property right is necessary to encourage development of the information service industry”.²⁷¹ Therefore, one of the themes of this study is the connection between protection and investment. This notion is supported by John Locke’s writings on knowledge:

“When we know our own strength, we shall the better know what to undertake with hopes of success; and when we have well surveyed the powers of our own minds, and made some estimate what we may expect from them, we shall not be inclined either to sit still, and not set our thoughts on work at all, in despair of knowing anything”.²⁷²

at 238 [hereafter Smith, ‘Bringing Developing Countries’ Intellectual Property Laws to TRIPs Standards’]; D Hindman, ‘The Effect of Intellectual Property Regimes on Foreign Investments in Developing Economies’ (2005-2006) 23 AJICL 467.

²⁶⁹ Smith, ‘Bringing Developing Countries’ Intellectual Property Laws to TRIPs Standards’ at 214.

²⁷⁰ JR Homere, ‘Intellectual Property Rights Can Help Stimulate the Economic Development of Least Developed Countries’ (2003-2004) 27 CJLA 277 at 278-279.

²⁷¹ GJ Lewis, ‘Copyright Protection For Purely Factual Compilations Under *Feist Publications, Inc. v Rural Telephone Service Co.*: How Does *Feist* Protect Electronic Data Bases of Facts?’ (1992) 8 SCCHTLJ 169 at 173; *Mazer v. Stein* 347 US 201, 219 (1954); *Telerate Systems, Inc. v Caro* 689 F. Supp. 221 (SDNY 1988) at 229.

²⁷² J Locke, *An Essay Concerning Human Understanding* (13th edn, Thomas Tegg 1846) Book I, Chapter I at § 6.

Protection reduces the level of risk of potential loss which is one of the main requirements for investment.²⁷³ Furthermore, “investment is associated with risk averse”²⁷⁴ actively due to the uncertainty²⁷⁵ and unpredictability of the market situations.²⁷⁶ Protection of the particular market is linked, *inter alia*, to the unpredictability of the market. Trubek, having referred to his research, “Law, Planning, and the Development of the Brazilian Capital Market”,²⁷⁷ explained how unpredictability affects investors.²⁷⁸ As he pointed out, when protection measures, such as Brazilian private rights system, and institutions, such as courts, failed to elicit the desired protection, investors were reluctant to invest in those particular markets. Trubek further noted that:

“I reasoned that investor reluctance could be explained by the fact that the Brazilian private rights system was underdeveloped. I observed that rules governing creditor and shareholder rights were imperfect, that courts were neither accessible nor efficient, and that sanctions were ineffective. Moreover, investors were unaware of their rights, and the bar was not organized to inform or defend them. Consequently, the system failed to give potential stockholders and creditors sufficient guarantees. In short, the system failed to supply predictability to the economic actors”.²⁷⁹

²⁷³ DW Jorgenson, ‘The Theory of Investment Behavior’ in R Ferber (ed), *Determinants of Investment Behavior* (NBER National Bureau of Economic Research 1967) at 185 <<http://papers.nber.org/books/ferb67-1>> accessed 26 March 2013.

²⁷⁴ R Morck *et al.*, ‘The Stock Market and Investment: Is the Market a Sideshow?’ (1990) 1990/2 BPEA 157 at 163.

²⁷⁵ SF LeRoy, LD Singell, Jr., ‘Knight on Risk and Uncertainty’ (April 1987) 95/2 JPE 394 at 394-395.

²⁷⁶ JR Hicks, ‘The Theory of Uncertainty and Profit’ (1931) 32 *Economica* 170 at 174.

²⁷⁷ DM Trubek, ‘Law, Planning, and the Development of the Brazilian Capital Market’ (Yale Law School Studies in Law and Modernization No. 3) [reprinted from BULL., Nos. 72 & 73 (New York University Graduate School of Business Administration April, 1971)].

²⁷⁸ DM Trubek, ‘Toward a Social Theory of Law: An Essay on the Study of Law and Development’ (November 1972) 82/1 YLJ 1.

²⁷⁹ DM Trubek, *ibid.*, at 45.

Protection minimises the possibility of infringement which is related to the level of investment.²⁸⁰ An intellectual property system attracts the investment and “its final element is its enforcement. Such enforcement entails two opposing tasks: punishing infringement by free riders and disciplining enterprises that try to extend their rights beyond intended levels by acting in an anti-competitive manner”.²⁸¹ Infringement of a work or a creation affects the return upon the investment and therefore damages the investment. Therefore, strong protection provides protection for investment.²⁸²

The protection, in a legal sense, consists of the intellectual property rights regime and other legal concepts such as contract, unfair competition and misappropriation laws. For example:

“The modern patent system, based on the objective assessment of inventions, was introduced by the Venetian Republic in 1474. The two requirements indicated by the Venetian Republic – the usefulness and novelty of the invention – are still in vigour today in all states ... [T]he inventor and the government undertake a long-term pact: the inventor commits him/herself to disclose all information of his/her invention, while the government guarantees that it will provide legal protection to give exclusive rights on the economic returns of the invention”.²⁸³

²⁸⁰ For example, in Lebanon Trademark infringement frustrated the “strong interest in designing apparel of high quality and style aimed at Middle Eastern markets.” And in China, “trademark infringement negatively affected innovative Chinese enterprises”. KE Maskus, ‘Intellectual Property Rights and Economic Development’(2000) 32 CWRJIL 471 at 480 [hereafter Maskus, ‘Intellectual Property Rights and Economic Development’].

²⁸¹ Maskus, *ibid.*, at 476.

²⁸² Landes, RA Posner, *The Economic Structure of Intellectual Property Law* 222.

²⁸³ D Archibugi, A Filippetti, ‘The Globalisation of Intellectual Property Rights: Four Learned Lessons and Four Theses’ (May 2010) 1/2 GP 137 at 138 (Internet) <<http://onlinelibrary.wiley.com/doi/10.1111/j.1758-5899.2010.00019.x/full#ss14>> accessed 26 March 2013; C Rittich, ‘The Venetian Moment: New Technologies, Legal Innovation and the Institutional Origins of Intellectual Property’ (2002) 20/2 PCSI 159 at 179; C May, S Sell, *Intellectual Property Rights: A Critical History* (Lynne Rienner 2006).

Legal protection, therefore, addresses the economic objectives.²⁸⁴ Investment is one of the economic objectives whether it is presented in micro or macro-economic scenarios. Maskus notes that:

“There are two central economic objectives of any system of intellectual property protection. The first is to promote investments in knowledge creation and business innovation by establishing exclusive rights to use and sell newly developed technologies, goods, and services ... The second goal is to promote widespread dissemination of new knowledge by encouraging (or requiring) rights holders to place their inventions and ideas on the market. Information is a form of public good in that it is inherently non-rival and, moreover, developers may find it difficult to exclude others from using it”.²⁸⁵

As mentioned earlier, data are public goods and, therefore, they attract protection²⁸⁶ under intellectual property law in order to promote the investment behind it. Braga and Fink state that:

“IPRs can be understood as second-best solutions to the problems created by the ‘quasi-public good’ nature of knowledge. To the extent that IPRs enhance appropriability, they are expected to foster investment in research and development (R&D) and knowledge creation”.²⁸⁷

Furthermore, intellectual property protection needs to be strong in order to attract investment. The importance of the protection for the intellectual property in respect of attracting investment has been identified as “[t]he intellectual

²⁸⁴ Hayek, ‘The Use of Knowledge in Society’ at 519-520; Maskus, ‘Intellectual Property Rights and Economic Development’ at 478; YM Braunstein, ‘Economic Impact of Database Protection in Developing Countries and Countries in Transition’ (WIPO, standing committee on copyright and related rights Seventh Session Geneva, May 13 to 17, 2002) at 6-7.

²⁸⁵ Maskus, ‘Intellectual Property Rights and Economic Development’ at 473-474.

²⁸⁶ Hayek, ‘The Use of Knowledge in Society’ at 520.

²⁸⁷ CAP Braga, C Fink, ‘The Relationship Between Intellectual Property Rights and Foreign Direct Investment’ (1998-1999) 9 DJCIL 163 at 164; KJ Arrow, ‘Economic Welfare and the Allocation of Resources for Invention’ in RR Nelson (ed), *The Rate and Direction of Inventive Activity: Economic and Social Factors* (UMI 1962) 616-617.

property capacity of a company is now more valuable than its buildings, machinery, and fixed assets”.²⁸⁸ Therefore, a weak protection system may reduce returns or benefits on investment.²⁸⁹ Lee and Mansfield observe that:

“[W]eak intellectual property protection in a developing country may lower the probability that multinational firms will invest there, and that, even if they do invest there, they may be willing (because of weak protection) to invest only in wholly-owned subsidiaries (not joint ventures with local partners) or to transfer only older technologies”.²⁹⁰

Practical examples for the argument that intellectual property protection attracts investment can be found all around the world. Maskus and McDaniel in their research, “Impacts of The Japanese Patent System on Productivity Growth”²⁹¹ show how the Japanese patent system influenced the total factor productivity (TFP)²⁹² which consequently increased the investment in a particular field.²⁹³ The authors found that “this system encouraged large numbers of utility model applications for incremental inventions which were based, in part, on laid-open prior applications for invention patents”.²⁹⁴

²⁸⁸ M Simensky, E Osterberg, ‘The insurance and Management of Intellectual Property Risks’ (1999) 17 CAELJ 321 at 321.

²⁸⁹ Maskus, ‘Intellectual Property Rights and Economic Development’ at 474.

²⁹⁰ JY Lee, E Mansfield, ‘Intellectual Property Protection and U.S. Foreign Direct Investment’ (May, 1996) 78/2 RES 181 at 181.

²⁹¹ KE Maskus, C McDaniel, ‘Impacts of the Japanese Patent System on Productivity Growth’ (1999) 11 JWE 557.

²⁹² “Technical progress, or changes in total factor productivity, is an essential element in economic growth... Newer endogenous growth theory attributes the TFP component of growth to the interaction between ideas and knowledge accumulation, which together generate increasing returns to physical and human capital”. KE Maskus, C McDaniel, *ibid.*, at 560.

²⁹³ M Kotabe, ‘A comparative study of U.S. and Japanese patent systems’ (1992) 23/1 JIBS 147.

²⁹⁴ Maskus, *supra* n.289, at 479.

Maskus, in his research relating to Lebanon, “Strengthening Intellectual Property Rights in Lebanon”²⁹⁵ shows how trademark law protection motivated investment. Trademark infringement frustrated the “strong interest in designing apparel of high quality and style aimed at Middle Eastern markets”.²⁹⁶ A very similar situation can be found in Chinese innovative enterprises. Lower quality counterfeit products have automatically forced enterprises to close their businesses and leave their trademarks.²⁹⁷

In the US, “intellectual property rights are primarily concerned with the incentives to create, invest and invent”.²⁹⁸ The US Constitution aims to promote the progress of science and the useful arts with its provisions on patents and copyright.²⁹⁹ With this in mind, “governments have created intellectual property in an effort to give the authors and inventors control over the use and distribution of their ideas as a way to encourage them to invest in the production of new ideas and works of authorship”.³⁰⁰

With regard to Asian countries, in 1987, “Singapore, Malaysia and Indonesia decided to implement more stringent intellectual property protection systems to

²⁹⁵ KE Maskus, ‘Strengthening Intellectual Property Rights in Lebanon’ in B Hoekman, JE Zarrouk (eds), *Catching Up with the Competition: Trade Opportunities and Challenges for Arab Countries, Studies in International Economics* (The University of Michigan 2000) 259.

²⁹⁶ Maskus, ‘Intellectual Property Rights and Economic Development’ at 480.

²⁹⁷ Maskus, *ibid.*, at 480.

²⁹⁸ JR Homere, ‘Intellectual Property Rights Can Help Stimulate the Economic Development of Least Developed Countries’ (2003-2004) 27 CJLA 277 at 279.

²⁹⁹ The Constitution of the United States, art. 1, sec. 8, cl. 8.

³⁰⁰ JR Homere, *supra* n.298, at 280; *Mazer v Stein* 347 US 201, 208 (1954).

prevent trade sanctions and to encourage foreign investment”.³⁰¹ While implementing these laws, they imposed criminal and civil liabilities against infringement. Therefore, it can be observed that protection can be used to combat infringement.³⁰²

As for Singapore, in relation to the TRIPS Agreement in 1995, “adaptation of stricter intellectual property rules permitted joint ventures with computer companies who refused to do business in Singapore before stricter laws were enforced”.³⁰³ Investors depend on stricter protection: “Stricter protection of the intellectual property rights ... stimulates innovations (advancement of culture) by rewarding the inventor”.³⁰⁴ This reward may be a licence which can be a financial benefit. This is one of the benefits for investment of stricter protection. It further minimises the infringement and abuse of creations and this protects the investment in creations.

Therefore, with the emerging importance of investment, domestic or foreign, protection is needed to help attract investment into the country. This can be done in Sri Lanka by providing protection through intellectual property law.

³⁰¹ JR Homere, *supra* n.298, at 284; E Uphoff, *Intellectual Property And U.S. Relations with Indonesia, Malaysia, Singapore, and Thailand* (Cornell South Asian Program 1990) 1,2,3.

³⁰² Landes, RA Posner, *The Economic Structure of Intellectual Property Law* for example - Copyright at 71 and Patent at 295.

³⁰³ Smith, ‘Bringing Developing Countries’ Intellectual Property Laws to TRIPs Standards’ at 238.

³⁰⁴ V Popov, ‘Do We Need to Protect Intellectual Property Rights?’ (2011) 11 JNEA 107 at 109.

1.6.3. Possible reasons for a lack of investment

There are a number of possible reasons for the previous lack of investment in digital databases in Sri Lanka, many relate to the process of Sri Lankan development. These can be identified as follows: political instability due to the 30 year civil war which ended in 2009; undeveloped digital database practice and marketplace,³⁰⁵ day to day needs being met through more conventional types of suppliers, processes and markets; lack of technological infrastructure and Internet availability - human and physical resources which provide and maintain the smooth flow of the Internet and its availability remain at a low level;³⁰⁶ lack of awareness of usage of digital information and tools relating to the function of the Internet; and, lack of legal protection³⁰⁷ of digital databases.

1.6.4. Reasons for legal protection

The legal protection of digital databases attracts database owners, authors and users to the digital database field.³⁰⁸ While owners and authors expect benefits from their investments in databases,³⁰⁹ users expect protection of their rights.³¹⁰

³⁰⁵ Information and Communication Technology Agency of Sri Lanka, 'Annual Report-2011' (2011) (Internet) at 9-11 and 30-31 <<http://www.icta.lk/images/icta/ICTA-Annual-Report-2011.pdf>> accessed 2 January 2013.

³⁰⁶ Annual Report-2011, *ibid.*, at 9-11.

³⁰⁷ Annual Report-2011, *ibid.*, at 9-11 and 16-17.

³⁰⁸ T Riis, 'Economic Impact of the Protection of Unoriginal Databases in Developing Countries and Countries in Transition' (2002) Copenhagen: Copenhagen Business School Center for Law, Economics and Financial Institutions LEFIC Working Paper 2002-03, at 6 (Internet)<<http://openarchive.cbs.dk/bitstream/handle/10398/6788/wplefic032002.pdf?sequence=1>> accessed 23 April 2013.

³⁰⁹ Landes, RA Posner, 'The Economics of Trademark Law' at 272; P Resnick *et al.*, 'The value of reputation on eBay: A controlled experiment' (June 2006) 9/2 EE 79 at 80; See this Chapter above at 1.2.1. Using economics as an approach to the concept of 'property'.

Legal protection can be employed to address both of these expectations and to strike a balance between these two interests. Most developed countries and regions such as the UK, the US and the EU have an acceptable level of database protection,³¹¹ but Sri Lanka, as a developing country, does not have the same in order to attract or protect investment.³¹²

1.6.5. Previous research carried out in this area

While the European Union has a specific right that protects databases, namely, the *sui generis* database protection,³¹³ the UK databases have already been protected by copyright.³¹⁴ However, in *Football Dataco Ltd v Britten Pools Ltd*,³¹⁵ the High Court of Justice (Chancery Division) decided that “databases (the Fixture Lists) are protected by database copyright,³¹⁶ but not by *sui generis*

³¹⁰ See Chapter 4 at 4.2.3. *In rem* and *in personam*.

³¹¹ Davison, *The Legal Protection of Databases* 10-11; Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 1-4.

³¹² K Rittich, ‘The future of the law and development: Second generation reforms and the incorporation of the social’ in DM Trubek, A Santos (eds), *The New Law and Economic Development-A critical Appraisal* (Cambridge University Press 2006) 204; DM Trubek, ‘The Rule of Law in Development Assistance: Past, Present, and Future’ in DM Trubek, A Santos (eds), *ibid.*, 74.

³¹³ Council Directive 96/9 EC (OJ L 077/20), art 7.

³¹⁴ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 2-3; Derclaye further argues that after being imposed the CDPA 1988, s 3 keeps two separate categories of copyrightable works, namely ‘table and compilations’ and ‘databases’. E Derclaye, ‘Do sections 3 and 3A of the CDPA violate the Database Directive? A closer look at the definition of a database in the U.K. and its compatibility with European law’ (2002) 24/10 EIPR 466 [hereafter Derclaye, ‘Do sections 3 and 3A of the CDPA violate the Database Directive?’].

³¹⁵ (2010) RPC 17.

³¹⁶ Copyright and Rights in Databases Regulations 1997, SI1997/3032.

database rights or any other copyright”.³¹⁷ In the US, “databases can only be protected by unfair competition, contract, TPM and anti-circumvention provisions”.³¹⁸ As stated earlier, the technical aspect of TPM and anti-circumvention provisions are not the subject of this study. However, this study does pay attention to competition law and misappropriation.

Numerous researches have been specialised in database protection. There are four key researchers who are being mainly focused by this research: Mark Davison, Estelle Derclaye, Victor H Bouganim and Robin Elizabeth Herr. Davison³¹⁹ suggests that there are three types of copyright protection for databases.³²⁰ First, “the copyright protection is provided for compilations on the basis that a substantial investment has been made in the compilation”.³²¹ The user cannot take a substantial amount of data from the database. Second, the Database Directive explains that “copyright protection is provided if there is some creativity in the selection or arrangement of the database material, coupled with a *sui generis* right. Copyright prevents the taking of the selection or arrangement. The *sui generis* right protects the investment in obtaining, verifying and presenting the data within the database”.³²² Third, the “copyright protection is provided for the creativity in the selection or arrangement of the

³¹⁷ *Football Dataco Ltd V Britten Pools Ltd* [2010] EWHC Ch 841, at para 101 (per Floyd J).

³¹⁸ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 223.

³¹⁹ MJ Davison, ‘*Sui generis* protection of databases’ (PhD Thesis/University of Monash 2001).

³²⁰ Davison, *The Legal Protection of Databases* 10.

³²¹ Davison, *ibid.*

³²² Davison, *ibid.*

database material. No protection is provided for the data contained within the database”.³²³

Derclaye has done her research on the topic, “Protection of and access to databases in the European Community and the United States: a comparative analysis”.³²⁴ This research focuses on the different types of protection available for the protection of investments in database creation and how there is insufficient protection (‘under protection’) and too much protection (‘over protection’) in different jurisdictions. Four types of laws which can protect the content of databases have been identified by her research, namely “intellectual property, unfair competition, contract and TPM”.³²⁵ The outcome of this research was the creation of a model for the protection of investment in database creation which is based on an intellectual property approach.

Bouganim has done his research on the topic of “the legal protection of databases from copyright to dataright”.³²⁶ In order to determine the appropriate international legal standards for the protection of databases the following initiatives has been taken into account in his research, i.e.- “the Agreement on Trade Related Aspects of Intellectual Property (1994),[at that time ongoing] discussions in the World Intellectual Property Organisation (WIPO), and the

³²³ Davison, *ibid.*

³²⁴ E Derclaye, ‘Protection of and access to databases in the European Community and the United States: a comparative analysis’ (Queen Mary/University of London 2000) Intellectual Property Foresight Forum (IPFF) <<http://www.ipforesightforum.ac.uk/index.htm>> accessed 17 July 2013.

³²⁵ Derclaye, *The Legal Protection of Databases: A Comparative Analysis ix.*

³²⁶ VH Bouganim, ‘The Legal Protection of Databases from Copyright to Dataright’ (PhD Thesis/Information Technology Law Unit, Centre for Commercial Law Studies, Queen Mary and Westfield College-University of London 1999) Queen Mary Research Online <<http://qmro.qmul.ac.uk/jspui/handle/123456789/1456>> accessed 1 November 2012.

European Union's Directive on the Legal Protection of Databases (1996)".³²⁷

The last of the chosen initiative has been "the most comprehensive attempt to resolve the issues involved in the protection of databases".³²⁸ Bouganim's research has made a special reference to the international copyright law and its calibre to provide an appropriate legal framework for the protection of databases. He further states that:

"Furthermore, the rules of database copyright law, as applied in the United Kingdom and the United States, were examined and compared in the light of the anticipated reforms derived from the above-mentioned initiatives. From these explorations, [his thesis] concludes that copyright law has a limited application in the protection of databases. Moreover, the copyright regime as applied to databases can lead to under-protection of certain databases and over-protection of others....The dataright regime as introduced in the above European Union Database Directive is thoroughly examined and compared to proposals made by WIPO and by the United States Congress, as well as to alternative models of database protection. The quest for the adequate dataright system was considered as a balance of rights among database producers and users to the extent that incentives for database creation and dissemination are secured without excessive effects on access to information and free competition. The debate on how to achieve this balance has focused on whether the appropriate approach was to adopt unfair competition law, or to introduce a *sui generis* exclusive-right regime".³²⁹

Herr's research was entitled "Is the *Sui Generis* Right a Failed Experiment?: A Legal and Theoretical Exploration of How to Regulate Unoriginal Database Contents and Possible Suggestions for Reform".³³⁰ In her thesis, the main

³²⁷ Queen Mary Research Online, *ibid*.

³²⁸ Queen Mary Research Online, *ibid*.

³²⁹ Queen Mary Research Online, *ibid*.

³³⁰ RE Herr, 'Is the *Sui Generis* Right a Failed Experiment? A Legal and Theoretical Exploration of How to Regulate Unoriginal Database Contents and Possible Suggestions for Reform' (PhD Thesis/Copenhagen Business School DJØF Publishing 2008).

argument is that “the policy question addressed by the *sui generis* right - that of how to stimulate the production of databases – is not, in fact, correct question to ask”.³³¹ To support this argument she provides two policy questions those are:

“1. What is the best way to provide production incentives for those who need it?

2. What is the best way to provide legal access to materials contained within a database?”³³²

As this researcher noted these policy questions are results of the long running debate on the practicality of any type of intellectual property regulations. Her thesis further points out that there is a gap relating to the balance between those policy questions and considered three factors such as “(1) the specific nature of the database industry, (2) economic analysis of the law and (3) the empirical evidence offered by the European and US protection regimes,”³³³ in order to exploring where the said balance should be laid. The ultimate goal of Herr’s research is that “to evaluate the impact of the database right on the protection of unoriginal database contents and to formulate amendments to improve its effectiveness”.³³⁴ However there is no examination on the copyright of the structure and arrangement because the researcher considered that it was generally less problematic.³³⁵

³³¹ Herr, ‘Is the *Sui Generis* Right a Failed Experiment?’ at 14.

³³² Herr, *ibid.*, at 14.

³³³ Herr, *ibid.*, at 14.

³³⁴ Herr, *ibid.*, at 15.

³³⁵ Herr, *ibid.*, at 15.

1.6.5.1. Issues that have not been considered in previous research

All of this previous research and well established existing protection mechanisms have focused on well-developed countries and their legal systems. Not one of them went in to detail in relation to developments in South Asia which depend upon foreign and domestic investment. Moreover, the previous research mainly focuses upon the content of databases but not database structure, which enhances the value and/or usefulness of data. In the digital format of databases, this process is being done by computer programs. Sometimes some researchers have slightly deviated from the discussion of contribution of computer programs in enhancing value and/or usefulness of data, in the line of backgrounds of arguments best available to them.³³⁶

1.6.5.2. Novel aspects of this thesis

This study examines the existing laws applicable to databases in order to find the most appropriate mechanism for the protection of digital databases in Sri Lanka, in order to protect and attract investment into the digital database arena. The thesis aims to point out the process of enhancement of value and/or usefulness of data in digital databases. This research, further tries to find out the validity and worth of the contribution of computer programs in digital databases and examines the possibility of awarding patent protection on this

³³⁶ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 67 especially at ch 3.2.7 Exclusions of computer programs used in the making or operation of a database; Bouganim, 'The Legal Protection of Databases from Copyright to Dataright' at 139.

contribution. Patent protection provides appropriate intellectual property protection that will meet development needs and attract investment.³³⁷

1.6.6. Reasons for choosing Sri Lanka

Most of the recent strategies pertaining to the development of Sri Lanka have been based on its geographical location in the region³³⁸ and the world. Since the end of the civil war in 2009, the country has moved forward with plans and programs linking various sectors of the country. Most of them depend on digital information systems which rely heavily on the telecommunications sector. This was projected to expand moderately in 2012, with investment in upgrading telecommunications infrastructure and adapting to the latest technology driven by ICT innovations.³³⁹ Wireless broadband data transfers are set to be the main growth drivers for the telecommunications industry over the next few years, benefiting from the expansion of 3G/4G coverage.³⁴⁰

³³⁷ Imam, 'How Patent Protection Helps Developing Countries' at 389; See Chapter 3 at 3.2. Origin of patent protection issue and 3.4. Patents in the proposed system.

³³⁸ "The south part of India is becoming the world's hub of Information Technology market. Since 1990s, India is becoming the leading provider in offshore Information Technology and Business Processing Outsourcing (BPO) services which are projecting to reach annual revenues of US\$225 billion by 2020. This boosts the availability of information technology and its importance in the region. Due to the time difference between the western developed countries and Asia, there are high benefits of the usage BPO services. The functioning of this service depends on the digital databases and physical and human resource availability of the particular country in Asia". SK Mathur, 'Indian Information Technology Industry: Past, Present and Future A Tool for National Development' [2006] JTAIT (Internet) <<http://perso.univ-rennes1.fr/eric.darmon/floss/papers/MATHUR.pdf>> accessed 22 July 2013.

³³⁹ Broadband Commission for Digital Development, Strategies for the promotion of broadband services and infrastructure: A Case Study on Sri Lanka (2012) ITU September 2012, at ch2 and 3<http://www.itu.int/ITU-D/treg/publications/BB_MDG_SriLanka_Final.pdf> accessed 16 July 2013.

³⁴⁰ Central Bank of Sri Lanka, 'Recent Economic Developments, Highlights of 2011 and Prospects for 2012' (2012) CBSL (Internet) at 23 <http://www.cbsl.gov.lk/htm/english/10_pub/pub.html> accessed 22 June 2013.

Even though Sri Lanka is being equipped with these economic, infrastructure and political tools, the country still needs to attain an acceptable level of legal protection for digital databases. The IP Act of 36/2003/SL is the only law applicable to the protection of databases. However, the said Act does not contain a comprehensive definition for database and the protection for the databases is provided only under the copyright law. Thus the existing law in Sri Lanka has been failed to provide an acceptable level of protection over the digital databases. Therefore, this research suggests a switch to a *sui generis* system that includes a bundle of existing legal rights/mechanisms. The desired outcome of the thesis proposal is to attract investment to the Sri Lankan digital database arena. Although this is a discussion on Sri Lanka, this research can be used as a model for the application of legal protection to digital databases in other developing countries both within and outside Asia.

1.7. Importance of “*sui generis*” right protection and link with investment

At the time of the introduction of the *sui generis* right protection there was a trend in case law in EU member states to reject copyright protection for databases.³⁴¹ This showed the inadequacy of copyright protection to protect investment in the creation of databases. Therefore, it can be observed that the *sui generis* right protects a kind of investment³⁴² which this thesis also mainly focuses upon. As this right is an investment-focused tool, it addresses every

³⁴¹ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 44-45.

³⁴² UNCTAD-ICTSD, *Resource Book on TRIPS and Development* (Cambridge University Press 2005) 170.

aspect of investments in digital databases.³⁴³ Investors are looking for a tool which can be used to protect their investment in human, technical, financial or other types of resources in digital databases.³⁴⁴

Attracting investment to Sri Lanka is, therefore, a development requirement and one which is of great importance in the context of the trend of the domestic and global information strategy. Providing legal protection for digital databases where information is stored and, constitutes a factor for attracting investment as the instrumental value of law to this development is now well established.³⁴⁵

This research examines the existing database mechanisms which make links with investment in databases. The *sui generis* right protection, *inter alia*, substantially protects the investments made and provides the availability of a bundle of rights/mechanisms along with other new and existing protection systems.

³⁴³ Davison, *The Legal Protection of Databases* 191; See Chapter 6.

³⁴⁴ Commission of the European Communities, 'First Evaluation of Directive 96/9/EC on the Legal Protection of Databases'(DG Internal Market and Services Working Paper 12 December 2005) at 7; See this Chapter at 1.1. Background, 1.6. The role of investment in database protection, 1.6.1. The broad context of the problem, 1.6.2. Link between protection and investment and 1.6.4. Reasons for legal protection.

³⁴⁵ Hayek, 'The Use of Knowledge in Society' at 523; "Since the end of the twentieth century, intellectual property has become an integral part of the economies of developed countries. As their economies are becoming more information- based, developed countries have devoted greater resources to promoting innovation, to securing exclusive rights in information and to gaining competitive advantage in the world market". JR Homere, 'Intellectual Property Rights Can Help Stimulate the Economic Development of Least Developed Countries' (2003-2004) 27 CJLA 277 at 279.

1.8. Overview

Emerging trends in the digital environment, and the technological advancements in the respective fields in the South Asian region, steer the necessity of doing research toward the field of digital databases in Sri Lanka. There is a lack of understanding in the acceptable level of protection available under the existing domestic laws,³⁴⁶ and for likewise reasons, I address the point of investment of digital databases, which are the driving forces in this research. The thesis first identifies the digital databases with specific attention to the structure of digital databases and the contribution of computer programs installed towards the digital databases. In relation to this point, the process of enhancement of value and/or usefulness of data is made out as the key element of the contribution of computer programs in digital databases. The system proposed by the thesis expects to protect the investment behind the process of creating a digital database. The proposed system consists of an array of protective rights and mechanisms - one mechanism can provide protection in the event of a failure of another.

In this introductory Chapter, background information about database protection and its necessity in Sri Lanka has been given. This Chapter outlines the two main strands in this thesis: the first is that intellectual property protects investment and helps to attract future investment;³⁴⁷ the other identifies the enhancement of value and/or usefulness of data in digital databases due to the operation of installed computer programs. Copyright as an existing mechanism needs to be examined for the purpose of uncovering the link between protection

³⁴⁶ IP Act of 36/2003/SL.

³⁴⁷ See this Chapter at 1.6.2. Link between protection and investment.

and investment. This will be the main aim of the next Chapter. Identifying the contribution of computer programs to digital databases shows the need to have strong protection for computer programs in digital databases. This thesis proposes patent protection as a solution to this, and this will be addressed in Chapter 3. Chapter 4 will be used for a discussion on contract law which provides flexibility of use that fosters a better relationship between owners and users of digital databases. The concepts of unfair competition and misappropriation concern the economic aspects of databases which are more fully linked to the notion of investment. Discussion of which can be found in Chapter 5. With the requirement to attract investment in mind, the structure of the proposed database protection system is a form of *sui generis* right protection. This is dealt with in Chapter 6. Concluding remarks of the study in Chapter 7 are divided into two parts: a summary of all discussions and suggestions for the proposed protection of digital databases in Sri Lanka.

CHAPTER 2

PROTECTION OF DIGITAL DATABASES BY COPYRIGHT LAW

2.1. Introduction

The aim of this Chapter is to assess the availability of copyright protection of digital databases in order to protect investment¹ in them. Traditionally, databases have been protected by copyright.² However, copyright protection does not specifically identify the contribution of computer programs which enhance the value and/or usefulness of data in digital databases. This Chapter will assess whether copyright can be used to provide protection to Sri Lankan digital databases in order to attract investment to the digital database arena in Sri Lanka. Copyright is the current protection mechanism of Sri Lankan databases, under which databases are identified as a 'compilation'.³

A database can be defined as a collection⁴ of independent works, data or other materials arranged in a systematic or methodical way and which are individually accessible by electronic or other means.⁵ Before this definition gained currency, 'compilation' was used as the method of identifying databases. The change

¹ See Chapter 1 at 1.6.2. Link between protection and investment.

² Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 1.

³ IP Act of 36/2003/SL, s 7(1)(b).

⁴ Bouganim, 'The Legal Protection of Databases from Copyright to Dataright' at 124.

⁵ CDPA 1988, s 3A; Council Directive 96/9 EC (OJ L 077/20), art. 1(2).

occurred as a result of the implementation of the EU's Database Directive.⁶ However, the definition of compilation is still a workable interpretation of a database. As mentioned previously, Sri Lankan databases still depend on a definition of 'compilation' under copyright protection.⁷ Given that this thesis includes a proposal for a protection mechanism for databases in Sri Lanka, the arguments with regard to compilations and their operation in relation to the concept of copyright will also be considered in relation to the concept of investment.

This Chapter commences with a brief discussion of the history of copyright law. It traces how the legal concept of copyright might have been developed throughout its history to meet the current aims of intellectual property law. The prime purpose of this examination of copyright history is to understand the way that copyright protects the investment beneath creative works. In other words, how copyright has historically protected investment and how it has developed into intellectual property law.⁸ In relation to the understanding of present intellectual property law, the World Intellectual Property Organisation states that:

"Intellectual property relates to items of information or knowledge, which can be incorporated in tangible objects at the same time in an unlimited number of copies at different locations anywhere in the world. The property is not in those copies but in the information or knowledge reflected in them. Intellectual property rights are also

⁶ Council Directive 96/9 EC (OJ L 077/20), art. 3(1), implemented in the UK by the Copyright and Rights in Databases Regulations 1997, SI1997/3032.

⁷ IP Act of 36/2003/SL, s 7(1)(b).

⁸ PE Geller, 'Copyright History and the Future: What's Culture Got to Do With It?' (2000) 47 JCS-USA 209 at 257; E Mackaay, 'Economic Incentives in Markets for Information and Innovation' (1990) 13 HJLPP 867.

characterized by certain limitations, such as limited duration in the case of copyright and patents”.⁹

This Chapter assesses the purpose of copyright and its association with the protection of investment. In most EU countries,¹⁰ copyright law originated with the efforts of governments to regulate and control the output of printers.¹¹ Investment is a critical point in a discussion of database protection and copyright law.¹² The protection of databases aims to protect the investment made in the creation and maintenance of the database.¹³ Copyright law is one of several protection mechanisms which endeavour to protect investment in creative works.¹⁴

⁹ World Intellectual Property Organisation
<http://www.wipo.int/freepublications/en/intproperty/909/wipo_pub_909.html> accessed 11 February 2013.

¹⁰ For example- In England, in the 16th century, the Stationers’ Company which consisted of collective organisation of printers (‘stationers’) was given the power to require the entry in its register of printed books. By the 17th Century, the company enjoyed a dominant position in publishing. R Deazley, *Rethinking Copyright: History, Theory, Language* (Edward Elgar 2006)13-25; JGH Griffin, ‘An historical solution to the legal challenges posed by peer-to-peer file sharing and digital rights management technology’ (2010) 15/3 CLJCMT 78 at 80; In Scotland- LR Patterson, *Copyright- In Historical Perspective* (Vanderbilt University Press 1968) 24-25; In France- “The history of the right-The French Government originally assisted artists from the formation of the Academy of Fine Arts in 1648 which regulated the Paris Salons.” cited in J Collins, ‘Droit de suite: an artistic stroke of genius? A critical exploration of the European Directive and its resultant effects’ (Legislative Comment) (2012) 34/5 EIPR 305 at 305-306.

¹¹ LR Patterson, *Copyright- In Historical Perspective* (Vanderbilt University Press 1968) 36; R Deazley *et al.*, (eds) *Privilege and Property Essays on the History of Copyright* (Open Book Publishers Cambridge 2010) 4-5; JGH Griffin, ‘An historical solution to the legal challenges posed by peer-to-peer file sharing and digital rights management technology’ (2010) 15/3 CLJCMT 78 at 80.

¹² Commission of the European Communities, ‘Proposal for a Council Directive on the legal protection of databases’ COM (92) 24 final, recital 28 [hereafter COM (92) 24 final]; Herr, ‘Is the *Sui Generis* Right a Failed Experiment?’ at 90.

¹³ Council Directive 96/9 EC (OJ L 077/20), art. 7.

¹⁴ WM Landes, RA Posner, ‘An Economic Analysis of Copyright Law’(June 1989) 18/2 JLS 325 at 326.

In relation to Sri Lanka, the existing copyright law is the IP Act of 36/2003.¹⁵ As this thesis suggests, the legal background of computer programs should also be examined as one of the main parts of digital databases. Copyright protection of digital databases requires the protection of computer programs under copyright law. This requirement was introduced by the implementation of the World Trade Organisation's (WTO) TRIPS Agreement. The international standard referred to above also emphasises the need to introduce regulation for the protection of digital databases in Sri Lanka.

Davison suggests that "the transition of many First World economies from industrially based economies to information-based economies is a relatively recent phenomenon".¹⁶ During this transition, information¹⁷ became an asset which could be sold, acquired or stolen by another party.¹⁸ Moreover, if information is in a digital database then its usefulness increases because the structure of the database enhances the value and/or usefulness of information or data in that database.¹⁹

¹⁵ IP Act of 36/2003 repealed the earliest version of Code of Intellectual Property Act No. 52 of 1979 (as amended by Act No. 30 of 1980, No. 2 of 1983, No. 17 of 1990, No. 13 of 1997 and No. 40 of 2000) more detail can be found from World Intellectual Property Organisation website <<http://www.wipo.int/wipolex/en/details.jsp?id=2848>> accessed 29 April 2013.

¹⁶ Davison, *The Legal Protection of Databases 2*.

¹⁷ BA Persico, 'Under Siege: The Jurisdictional and Interagency Problems of Protecting the National Information Infrastructure' (Winter 1999) 7 CLCJCLP 153.

¹⁸ W Kingston, 'Information protection: filling some gaps left by patents'(2012) 4 IPQ 227 at 227; M Shelly, M Jackson, 'Copyright and contracts: the use of electronic resources provided by university libraries'(June 2012) 12/2 LIM 124 at 124; N Selvadural, MR Islam, 'Reproduction and communication of internet material by educational institutions: The need for clarity and certainty' (2010) 21/1 AIPJ 31.

¹⁹ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

Therefore, protection of databases is vital. In the electronic/digital context, this could be achieved by technological means or legal means. For example in the US, according to the legal means, databases are protected by unfair competition laws and contracts. The same are protected by TPM and anti-circumvention provisions under the technological means.²⁰ Derclaye states that:

“[T]he European Union²¹ has a specific right to protect databases, whereas the rest of the world relies either on sweat of the brow copyright or on unfair competition, contract, technological protraction measures²² (TPM) and/or the legal protection against their circumvention.²³ Civil law countries and the United States take action on the basis of legal protection against circumvention/anti-circumvention provisions: Civil law countries and the United States do the same”.²⁴

However, this thesis does not address the issues with TPM and anti-circumvention provisions because they are highly technical protections and, therefore, peripheral to the arguments in this thesis.²⁵

²⁰ 17 USC §103; *CCC Information Services v Maclean Hunter Market Reports* 44 F.3d 61 (2d Cir. 1994); *Feist Publications v Rural Telephone Co.* 499 US 340 (1991); Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 223; J Askanazi *et al.*, 'BRIEF: Copyrights & Trademarks: The Future of Database Protection in U.S. Copyright Law' [2001] DLTR 17.

²¹ COM (88) 172 final, ch 6; Davison, *The Legal Protection of Databases* 52.

²² JE Cohen, 'A Right to Read Anonymously: A Closer Look at "Copyright Management" in Cyberspace' (1995-1996) 28 CLR 981 at 983-989.

²³ L Ginsburg, 'Anti-circumvention rules and fair use' [2002] UCLAJLT 4; KJ Koelman, 'A hard nut to crack: The protection of technological measures' (2000) 6 EIPR 272.

²⁴ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 3.

²⁵ "TPM are not an adequate type of database protection because they are either over-protective or under-protective, depending whether they can be more or less easily circumvented...[A]nti-circumvention provisions under-protect the remainder of database". Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 244-245; "[O]nce access is obtained, the anti-circumvention provisions would not prevent fair use of information within a database which would include reproduction of large amounts of information, but not their selection or arrangement". Davison, *The Legal Protection of Databases* 167.

2.2. The history of copyright

The prime objective of examining the history of copyright law is to assess the potential ways that copyright protects investment, and the way that copyright law has helped to attract investors to creative businesses with specific focus on digital databases. The origin of UK copyright lies in the Crown's control upon the literary works which was mainly confined to the printing of books.²⁶ The protection of dramatic, artistic and musical has been developed gradually.²⁷ Technological advancement gave an impulsion to the development of copyright law and, simultaneously, the economic value of the intellectual property works also increased. The author's or creator's rights progressively became a fundamental and important asset that whose protection was sought. This has also been the rationale of the existing copyright law in Sri Lanka.²⁸ These similarities in the historical backgrounds of the regulatory regimes of copyright law in the UK and Sri Lanka strengthen the argument put forward by this research for the protection of digital databases.²⁹ Technological advancements in digital databases emphasise the necessity of protection mechanisms. For example, Reichman and Uhler, when discussing legal regime of the US, observed that:

²⁶ LR Patterson, *Copyright-In Historical Perspective* (Vanderbilt University Press 1968) ch 2, 20ff.

²⁷ Berne Convention for the Protection of Literary and Artistic Works of September 9, 1886, completed at Paris on May 4, 1886, revised at Berlin on November 13, 1908, revised at Berne on March 20, 1914, revised at Rome on June 2, 1928, revised at Brussels on June 26, 1948, revised at Stockholm on July 14, 1967, revised at Paris on July 24, 1971, and amended on October 2, 1979 cited in JC Ginsburg, 'Copyright, Common Law, and *Sui Generis* Protection of Databases in the United States and Abroad'(1997-1998) 66 UCLR 151 at 172 footnote 88.

²⁸ Abeyesekere, 'Copyright law and practice in Sri Lanka'.

²⁹ See Chapter 1 at 1.1. Background, 1.1.4. Reasons for research into digital database protection and 1.6.6. Reasons for choosing Sri Lanka.

“Efforts to accommodate the pre-existing legal landscape to the new technologies are proceeding along several different fronts. For example, because the new technologies empower publishers to fence off information goods by means of encryption devices and other technical protection measures, Congress has been persuaded to pass new laws making it a civil or criminal offense to disarm or tamper with these devices ... At the same time, the National Commissioners on Uniform State Laws have proposed a model contract law to govern computerized information transactions that all state legislatures would eventually adopt”.³⁰

The purpose of introducing these legal instruments was to protect the investment in creative works, backed by modern technologies.

In, ‘An Essay Concerning Human Understanding’, John Locke, a proponent of the copyright system, observed that:

“[T]he impressions then that are made on our sense by outward objects that are extrinsical to the mind; and its own operations about these impressions, reflected on by itself, as proper objects to be contemplated by it, are, I conceive, the original of all knowledge. Thus, the first capacity of human intellect is that the mind is fitted to receive the impressions made on it; either through the senses by outward objects, or by its own operations when it reflects on them. This is the first step a man makes towards the discovery of anything, and the groundwork whereon to build all those notions whichever he shall have naturally in this world”.³¹

Ideas or mental steps only subsist in the human mind³² cannot be copied. The expressions of the ideas can be copied.³³ The word ‘copy’ or ‘reproduction’ has always been a central element of copyright law, see for instance, the Statute of

³⁰ JH Reichman, PF Uhler, ‘Database Protection at the Crossroads: Recent Developments and Their Impact on Science and Technology’ (1999) 14 BTLJ 793 at 796-797.

³¹ J Locke, *An Essay Concerning Human Understanding* (13th edn, Thomas Tegg 1846) Book II, Chapter I at § 24.

³² “Copyright does not cover ideas and non-original elements”. JGH Griffin, ‘300 Years of Copyright Law? A Not So Modest Proposal for Reform’(2010) 28 JMJCIL 1 at 7; *Designers Guild v Williams* [2001] 1 WLR 2416 at 2416 (Eng.) (per Hoffmann LJ).

³³ RR Bowker, *Copyright its history and its law* (Houghton Mifflin 1912) 2-4.

Anne.³⁴ Copyright law *inter alia*, prevented illegal copying of printed material.³⁵

However, there were economic limits to the reasonableness of taking this idea to its logical conclusion:

“Calculating the economic consequences of perpetual copyright after the manner of Adam Smith, he [Lord Kames] denounced the consequences as raising the price of good books beyond the reach of ordinary readers and leaving the commerce of books ‘in a worse state than before printing was invented’”.³⁶

Patterson states that:

“The purpose of the Statute of Anne, then, was to provide a copyright that would function primarily as a trade regulation device-acting in the interest of society by preventing monopoly, and in the interest of the publisher by protecting published works from piracy, as did the stationer’s copyright”.³⁷

Infringement of copyright of any printed material affects the profitability of the owner or author of the original material. Protection against infringement attracts investment because infringement harms the investment in creative works.³⁸

In the early period of copyright law between 1709 and 1886,³⁹ law principally concerned the infringement of literary works, but now, copyright law covers *inter alia* “original literary, dramatic, musical or artistic works, sound recordings, films,

³⁴ An Act for the Encouragement of Learning, by vesting the Copies of printed Books in the Authors or Purchasers of such Copies, during the Times therein mentioned (1709) 8 Anne, c19.

³⁵ R Deazley, *Rethinking Copyright: History, Theory, Language* (Edward Elgar 2006) 18.

³⁶ *Hinton v Donaldson* (1773) Mor 8307, reproduced more fully in S Parks (ed), *The Literary Property Debate: Six Tracts, 1764-1774* (Garland Publication 1975) cited in W Cornish, ‘Conserving culture and copyright: a partial history’ (2009) 13 ELR 8 at 11.

³⁷ LR Patterson, *Copyright- In Historical Perspective* (Vanderbilt University Press 1968) 14.

³⁸ See Chapter 1 at 1.6.2. Link between protection and investment.

³⁹ An Act for the Encouragement of Learning, by vesting the Copies of printed Books in the Authors or Purchasers of such Copies, during the Times therein mentioned (1709) 8 Anne, c19 was implemented in 1709 and the Berne Convention for the Protection of Literary and Artistic Works 1886.

broadcasts” and other derivative works such as merchandising.⁴⁰ Throughout the various stages of copyright history, the concept of copyright has not evolved logically. Copyright in earlier times was, more or less, a kind of licence. Publishers of printed materials had this licence under the royal prerogative;⁴¹ now, this is a right. This right can be exercised by authors of books, film makers and writers of computer programs. Sections 3 and 5A of the UK’s Copyright, Designs and Patents Act 1988 (CDPA 1988) can be cited as evidence. Creators can use this power of control for the protection of their investments in their creations. Therefore, it can be seen that copyright protection has not changed its main theme of protection, which is to protect the investment in creative work.⁴² Having considered the views of Lessig, Vaidhyanathan and Fisher on the fact that ‘non-economic rewards to be equally relevant’, Griffin suggests that the view has now changed significantly because of the emphasis upon economic rationales in legal judgments.⁴³

⁴⁰ CDPA 1988, s 1(1) a, b, c ; 17 USC § 102(a) (2010); JGH Griffin, ‘300 Years of Copyright Law? A Not So Modest Proposal for Reform’(2010) 28 JMJCIL 1 at 5.

⁴¹ RR Bowker, *Copyright its history and its law* (Houghton Mifflin 1912) 37.

⁴² B Tyerman, ‘The Economic Rationale for Copyright Protection for Published Books: A Reply to Professor Breyer’ (1970-71)18 UCLALR 1100 at 1108-1113; *Donaldson v Beckett* 14 Geo III 1st Ser. 17 950 (1774), (1774) 2 Brown’s Parl. Cases 129, 1 Eng. Rep. 837; *Millar v Taylor* [(1769) 98 ER 201 Court of King’s Bench at 252-253.] Lord Mansfield appears to describe copyright as a blend of economic and personal rights. cited in S Newman, ‘The development of copyright and moral rights in the European legal systems’ (2011) 33/11 EIPR 677 at 682.

⁴³ “Eg, Lessig, L, *Free culture: How big media uses technology and the law to lock down culture and control creativity* (Penguin Press, New York 2004); S Vaidhyanathan, *Copyrights and copywrongs: The rise of intellectual property and how it threatens creativity* (2nd edn, New York University Press, New York 2003) and W Fisher, *Promises to Keep* (Stanford Law and Politics, Stanford 2004)”. cited in JGH Griffin, ‘An historical solution to the legal challenges posed by peer-to-peer file sharing and digital rights management technology’ (2010) 15/3 CLJCMT 78 at 80.

The UK's Statute of Anne introduced⁴⁴ two new norms such as the owner of the copyright is the author and a fixed term for published works. Both these concepts are still recognized in modern copyright law. The first reflects the ability to protect investment in creative works. The term 'owner' has a broader definition than the word 'author'. The term owner makes sense in an economic aspect which brings property rights for the investment made.⁴⁵ Posner notes that "[t]he property rights approach proportions the creator's return on investment to the commercial success of the invention (in the case of patents) or expressive work (in the case of copyrights) automatically".⁴⁶

An examination of the UK Copyright (Computer Programs) Regulations 1992 (CCPR)⁴⁷ helps to clarify the link between copyright and protection of investment in relation to computer programs. In Section 3(1) was amended as computer programs considering as the literary works. The Council Directive on the Legal Protection of Computer Programs (91/250/EEC)⁴⁸ was implemented by the CCPR. These regulations rectify the loophole in computer program protection under the CDPA 1988.

⁴⁴ Statute of Anne (An Act for the Encouragement of Learning, by vesting the Copies of printed Books in the Authors or Purchasers of such Copies, during the Times therein mentioned (1709) 8 Anne, c19).

⁴⁵ RA Posner, 'Intellectual Property: The Law and Economics Approach' (Spring 2005) 19/2 JEP 57 at 65.

⁴⁶ RA Posner, *ibid.*, at 59.

⁴⁷ Copyright (Computer Programs) Regulations 1992, SI1992/3233.

⁴⁸ Directive on the Legal Protection of Computer Programs 91/250/EEC, re-codified in 2009/24/EC (OJ L 122, 1991-05-17, P009-0013).

For example:

- “
- Copyright (Computer Programs) Regulations extended the words ‘Literary work’ to include preparatory design material for a computer program (Regulation no 3 of Copyright (Computer Programs) Regulations 1992 No 3233)
 - Restriction of infringement by issue of copies of computer programs within the Community (Regulation no 4 of Copyright (Computer Programs) Regulations 1992 No 3233)
 - Exclusion of decompilation of computer programs from fair dealing (Regulation no 7 of Copyright (Computer Programs) Regulations 1992 No 3233)
 - Devices designed to circumvent copy-protection applied to computer programs (Regulation no 10 of Copyright (Computer Programs) Regulations 1992 No 3233) ”

Copyright protects computer programs which are recorded, in writing, and which are original.⁴⁹ This protection in the UK marks the link between computer programs and investment; as mentioned in the introductory Chapter, this research considers the digital database and hence places special attention on computer programs.⁵⁰ If a computer program is under the protection of copyright, owners or authors of the computer program are capable of protecting their investment in the creation, even including preparatory design material for a computer program, as well as maintenance of a computer program. Bainbridge suggests that “[a]rguments for strong protection of computer programs appear at first sight to be reasonable, especially considering the desirability of attracting investment and stimulating innovation in new technology”.⁵¹ He further notes that:

⁴⁹ R Robertson, *Legal Protection of Computer Software* (1st edn, Longman 1990) 42-43.

⁵⁰ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data and Chapter 3.

⁵¹ DL Bainbridge, ‘The Scope of Copyright Protection for Computer Programs’ (1991) 54 MLR 643 at 643.

“Stripped down to its bare essentials, the purpose of copyright law is to prevent persons taking unfair advantage of the work and investment of others. Copyright law should be interpreted in such a way that it strikes a reasonable balance between the rights of copyright owners and the interests of society at large by encouraging a sensible amount of fair competition”.⁵²

This potentially attracts investors to the digital database field because computer programs are some of the main control tools of the digital database:

“[The] electronic/[digital] database normally consists of three parts. The first part is the computer program which operates the database. ...The second part ... is the data which is actually stored in it. ...The third part is the means of accessing the information for a particular application”.⁵³

Providing protection over an investment in computer programs in digital databases means providing protection to an investment in one of the main parts of digital databases. Digital databases consist of content and computer programs;⁵⁴ thus, protection (copyright) over computer programs attracts investors to the field.⁵⁵

Copyright provides a proprietary right over intangible property.⁵⁶ Intangible property can refer to property. This means that the Intangible property has to have been “acquired through the investment of considerable resources”.⁵⁷

⁵² DL Bainbridge, *ibid.*, at 661.

⁵³ Pattison, ‘The European Commission’s Proposal on the Protection of Computer Databases’ at 115; Conley *et al*, ‘Database Protection in a Digital World’ at para 13.

⁵⁴ See Chapter 3.

⁵⁵ See Chapter 1 at 1.6.2. Link between protection and investment.

⁵⁶ CDPA 1988, s 1(1); B Sherman, L Bently, *The Making of Modern Intellectual Property Law-The British Experience, 1760-1911*(Cambridge University Press 1999) 47; WM Landes, RA Posner, *The Economic Structure of Intellectual Property Law* (The Belknap Press of Harvard University Press 2003) 71.

⁵⁷ Davison, *The Legal Protection of Databases* 173.

For example – ‘news’.⁵⁸ Copyright law examines the rights of authors, producers, performers and broadcasters and their contribution and connection to the public.⁵⁹ The digital databases involve a combination of owners, authors, contributors and performers. Owners and authors decide the basis of the digital database while various contributors, including users, contribute to the content of the database by providing digital information. For example, the users of *Youtube* and *Facebook* contribute to the data content of particular online digital databases by uploading videos and photographs. The computer programs attached to these digital databases work as a performer.⁶⁰ This performing task can be found from the process of the KDD.⁶¹ This process starts from the data mining. The process of KDD acquires or selects target data in order to develop and understand the goals of the data mining process. The KDD process integrates and checks the data sets which were produced by data mining process as appropriately. This KDD process may include model development and hypothesis building, interpretation and visualisation of the achieved results.⁶² Depending on the request made by digital database end user, the KDD processes verify and maintain discovered knowledge. ‘This performance task enhances the value and/or usefulness of data’⁶³ and therefore the

⁵⁸ *International News Service v Associated Press* 248 US 215 (1918).

⁵⁹ CDPA 1988, s 16 and ss 17-21.

⁶⁰ *Sega Enterprises Ltd. v. Accolade, Inc.* 977 F.2d 1510 (9th Cir. 1993); *Sony Computer Entertainment v Connectix Corp.* 203 F.3d 596 (9th Cir. 2000).

⁶¹ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

⁶² Goebel *et al.*, ‘A Survey of Data Mining and Knowledge Discovery Software Tools’ at 21; For more detail generally see Chapter 1 at 1.5. *ibid.*

⁶³ See Chapter 1 at 1.5. *ibid.*

proposed digital database protection system needs to protect the investment beneath it.

2.3. Tables, Compilations and databases under Copyright Law

The implementation of the Copyright and Rights in Databases Regulations⁶⁴ is an important landmark in the history of copyright. The Database Directive⁶⁵ was implemented through these Regulations.⁶⁶ According to the Regulations, compilation is the basic structure on which the protection of copyright of databases should be implemented, alongside the creation of databases as a literary works themselves,⁶⁷ and the new *sui generis* right discussed below.⁶⁸

The process of compilation consists of elements of selection or arrangement of chosen data or both:⁶⁹ “Databases are in the form of compilation, collection, collective work or composite work”.⁷⁰ Compilation means the organisation, systemisation and the methodical arrangement of data. Tables and compilations are protected by the originality test i.e. skill, effort and labour specified under the UK legal system. Tables and Compilations that are not databases need to meet the usual standard of copyright originality. However, for the purpose of the

⁶⁴ Copyright and Rights in Databases Regulations 1997, SI1997/3032.

⁶⁵ Council Directive 96/9 EC (OJ L 077/20).

⁶⁶ CDPA 1988, s 3(1)(a) was amended by this Regulations.

⁶⁷ Football pool coupon - *Ladbroke (Football) Ltd v William Hill (Football) Ltd* [1964] 1WLR 273; Radio Programmes lists - *BBC v Wireless League Gazette Publishing Co* [1936] Ch 433; List of share prices - *Exchanged Telegraph Co Ltd v Gregory & Co.*[1896] 1QB147.

⁶⁸ See Chapter 6.

⁶⁹ S Chalton, ‘The Effect of the E.C. Database Directive on United Kingdom Copyright Law in Relation to Databases: A Comparison of Features’ (1997) 19 EIPR 278.

⁷⁰ Davison, *The Legal Protection of Databases* 12.

selection or arrangement of the contents, databases require there to be the “authors own intellectual creation” which is higher level of originality than the UK traditional originality test.⁷¹ Those databases which do not meet the higher originality standard can still be protected under the *sui generis* right in terms of Database Directive.⁷² The objective⁷³ of the *sui generis* right protection is to protect the substantial investment in obtaining, verification or presentation of the database content.⁷⁴ The systematical or methodical way and collection of data provide the basic structure and shape for the database.⁷⁵ Each and every step mentioned above is the result of investment. For example, the process and function of collection of information, analysis as well as the arrangement of the information collected are done by skilled intellectuals whose professional work merits high remuneration. Finding such skilled intellectuals is an investment which costs a lot of money.⁷⁶

⁷¹ CDPA 1988, s 3A (2); K Garnett *et al.*, *Copinger and Skone James on Copyright* Volume 1(16th edn, Thomson Reuters 2011) ch 3-21, 74ff.

⁷² See Chapter 6.

⁷³ Council Directive 96/9 EC (OJ L 077/20), ch III.

⁷⁴ Council Directive 96/9 EC (OJ L 077/20), art. 7(1).

⁷⁵ In the UK- CDPA 1988, s 3A and Copyright and Rights in Databases Regulations 1997, SI1997/3032.

Meaning of “database”

s 6. After section 3 insert—

“Databases

3A.—(1) In this Part “database” means a collection of independent works, data or other materials which—

- (a) are arranged in a systematic or methodical way, and
- (b) are individually accessible by electronic or other means.

(2) For the purposes of this Part a literary work consisting of a database is original if, and only if, by reason of the selection or arrangement of the contents of the database the database constitutes the author’s own intellectual creation”. In the EU- Council Directive 96/9 EC (OJ L 077/20), art. 1(2).

⁷⁶ See *inter alia* Conley *et al.*, ‘Database Protection in a Digital World’ and Pattison, ‘The European Commission’s Proposal on the Protection of Computer Databases’.

Copyright protection is given to the effort of collection of data in databases under copyright law. This effort should be something more than mere labour. In *Football Dataco and others*⁷⁷ suggested that the act of compilation was not just 'sweat of the brow'.⁷⁸ The reason is that the compilation of the databases involves the processing of data. Processing of information requires skills of collection of information and application of judgement. In digital databases, this process is done by installed computer programs which provide data mining and KDD.⁷⁹ "Data mining applies specific algorithms⁸⁰ for extracting patterns from data"⁸¹ (processing of data). KDD, along with data mining, applies judgement in order to produce 'useful knowledge'⁸² (application of judgement over data).⁸³ Investment provides fuel for this processing of information. The proposed system outlined in this thesis intends to protect this investment in order to attract future investment.

Derclaye argues that Section 3 of the CDPA 1988 recognizes two separate categories of copyrightable works, namely 'tables and compilations' and

⁷⁷ *Football Dataco Limited, The Scottish Premier League Limited, The Scottish Football League, PA Sport UK v Sportradar GMBH, Sportradar AG : Football Dataco Limited, The Football Association Premier League Limited, The Football League Limited, The Scottish Premier League Limited, The Scottish Football League, PA Sport UK v Stan James Abingdon Limited, Stan James Plc, Enetpulse APS* [2012] EWHC Ch 1185.

⁷⁸ *Football Dataco Limited, ibid.*, [2012] EWHC Ch 1185 at paras 76, 84, 85, 86, 87 and 88; JC Ginsburg, 'No Sweat? Copyright and Other Protection of Works of Information after Feist v Rural Telephone' (1992) 92 CLR 338 at 339.

⁷⁹ Goebel, L Gruenwald, 'A Survey of Data Mining and Knowledge Discovery Software Tools' at 21; Fayyad *et al.*, 'From data mining to knowledge discovery in databases' at 39; See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

⁸⁰ M Punniyamoorthy, JJ Thoppan, 'ANN-GA based model for stock market surveillance' (2013) 20/1 JFC 52 at 52; See Chapter 1 at 1.5. *ibid.*

⁸¹ Fayyad *et al.*, 'From data mining to knowledge discovery in databases' at 39.

⁸² MJ Norton, 'Knowledge Discovery in Databases' (Summer 1999) 48/1 LT- JHUP 9 at 11.

⁸³ Goebel, L Gruenwald, *supra* n.79, at 21; Fayyad *et al.*, *supra* n.79, at 39.

'databases'.⁸⁴ Furthermore, "[c]ompilations and tables have already been protected as literary works under the previous versions of the Copyright Act and there have been a large number of decisions".⁸⁵ This shows that there may be databases which do not come under the interpretation of compilations. Derclaye suggests that this difference is mainly because "the United Kingdom has had a tradition of protecting works under specified categories and under a low level of originality".⁸⁶ This different approach is not considered in this thesis due to two reasons:

1. Irrespective of the categorization as 'tables and compilations' or 'databases', all such works are result of a process which is driven by investment. Therefore, copyright protection for all the above categories is needed to attract such investment. Since this thesis intends to protect all the digital databases and thereby to promote investments for the said field, aforesaid diversification of digital databases is not considered.
2. Any different treatment given to 'tables and compilations' and 'databases' will leave the former without protection. Most databases in Sri Lanka can be described as 'tables and compilations' because of the

⁸⁴ Derclaye, 'Do sections 3 and 3A of the CDPA violate the Database Directive?'; *Forensic Telecommunications Services Ltd v Chief Constable of West Yorkshire* [2011] EWHC Ch 2892.

⁸⁵ Derclaye, *ibid.*, at 467; *Kelly v Morris* [1886] LR 1 Eq. 697; *Cate v Devon & Exeter Constitutional* [1889] 40 ChD 500; *Exchange Telegraph Co. v Gregory* [1896] QB 147; *Macmillan v Cooper* [1923] 40 TLR 186; *Cramp (GA) & Sons Ltd v Smythson (Frank) Ltd* [1944] AC 329, HL; *Elanco Products Ltd v Mandops (Agrochemical Specialists) Ltd* [1980] RPC 213, [1979] FSR 46, CA; *BBC v Time Out* [1984] FSR 64; *Waterlow Directories Ltd v Reed Information Services Ltd* [1992] FSR 409, ChD; *Waterlow Publishers Ltd v Rose* [1995] FSR 207, CA; *Ladbroke (Football) Ltd v William Hill (Football) Ltd* [1994] 1 AER 465, HL; *Mars UK Ltd v Teknowledge Ltd* [2000] FSR 138.

⁸⁶ Derclaye, *ibid.* at 467.

provisions of the existing IP Act of 36/2003/SL.⁸⁷ Therefore if the said different approach followed by the UK is applied to Sri Lankan scenario, the investment behind ‘tables and compilation’ would be left without protection and this is against the purpose of this thesis. This thesis aims to protect all kinds of investment given that ‘tables and compilations’ also enhance the value and/or usefulness of data.

Apart from this, it should be noted that Sri Lankan databases should fulfil other requirements such as originality of the particular digital database and creativity of the same as well as the need for investment due to them receiving protection under the proposed system.

In the UK, the CDPA 1988 does not provide a comprehensive definition for the terms ‘table’ and ‘compilation’.⁸⁸ A ‘table’ can be defined as a systematic arrangement of data. Railway timetables,⁸⁹ television programme schedules,⁹⁰ and football pool coupons⁹¹ have been held to be literary works⁹² for the purpose of copyright law. However, tables are mere listings of the data when compared with compilations. A compilation requires selection, which needs more skill and labour. This means that a compilation is the result of greater

⁸⁷ IP Act of 36/2003/SL, s 7 appears as:

“Derivative works. 7. (1) The following shall also be protected as works:—

(b) collections of works and collections of mere data (data bases), whether in machine readable or other form, provided that such collections are original by reason of the selection, co-ordination or arrangement of their contents”.

⁸⁸ CDPA 1988, s 3 (1) (a).

⁸⁹ *Lesie v Young* (1894) 21 R (HL) 57.

⁹⁰ *Independent Television Publications Ltd v Time Out Ltd* [1984] FSR 64.

⁹¹ *Ladbroke (Football) Ltd v William Hill (Football) Ltd* [1964] 1WLR 273.

⁹² Bouganim, ‘The Legal Protection of Databases from Copyright to Dataright’ at 126.

effort than the preparation of a table. However, protection under the proposed system depends on the ability to enhance the value and/or usefulness of such tables and compilations. In other words, these can be protected components when they meaningfully enhance the value and/or usefulness of data.

Databases consist of tables and compilations. Although a table or compilation is now, under the CDPA, *not* to include a database, they are still protected under UK law.⁹³ The difference between a database and a table or compilation depends on the “three conditions of the Database Directive’s definition: independence, systematic or methodical arrangement and individual accessibility of the elements”.⁹⁴ These conditions individually and together represent the investment made by the owner. The thesis proposes to set up a system for the protection of digital databases with this investment representation in mind.

However, every compilation cannot be protected by copyright as “a compilation must be a literary work in order to attract copyright protection. It should be noted here that the compilations of sound recordings, films and other material of a non-literary nature may be excluded”.⁹⁵ However, the digital formation of these materials can be considered to be digital compilations.⁹⁶ This means that a digital database of non-literary material could be a digital compilation and can, therefore, receive protection as a database. The conversion of data into digital

⁹³ CDPA 1988, s 3(1) (a).

⁹⁴ Derclaye, ‘Do sections 3 and 3A of the CDPA violate the Database Directive?’ at 468.

⁹⁵ Davison, *The Legal Protection of Databases* 13.

⁹⁶ Davison, *ibid.* 12-13.

form, for example Portable Document Format (PDF)⁹⁷ or HyperText Markup Language (HTML),⁹⁸ needs additional investment and this investment should be protected. Whether due to the reason for, or the method of, the selection itself or the arrangement of the contents, it must satisfy different standards of originality and it must constitute the author's own intellectual creation.⁹⁹ This is the main argument of this thesis - that the author's or creator's investment has to be protected in order to attract investors to the digital database field.

2.4. The underlying computer program – issues of originality

As this thesis mainly focuses attention on digital databases, it is vital to examine the function of computer programs. Information in digital databases is operated and manipulated by, and functionalised through, computer programs. The structure which enhances the value and/or usefulness of data in digital databases is created by computer programs. Copyright protection starts from the concept of originality or creativity. In a discussion of copyright protection over digital databases, it is important to examine the originality of digital

⁹⁷ “Stands for ‘Portable Document Format.’ PDF is a multi-platform file format developed by Adobe Systems. A PDF file captures document text, fonts, images, and even formatting of documents from a variety of applications.” Techterms <<http://www.techterms.com/definition/pdf>> accessed 7 May 2013; Adobe Systems Incorporated. *PDF Reference, sixth edition: Adobe Portable Document Format version 1.7.* (Adobe Systems Incorporated 2006) <http://www.adobe.com/content/dam/Adobe/en/devnet/acrobat/pdfs/pdf_reference_1-7.pdf> accessed 7 May 2013.

⁹⁸ “Stands for ‘Hyper-Text Markup Language.’ This is the language that Web pages are written in. Also known as hypertext documents, Web pages must conform to the rules of HTML in order to be displayed correctly in a Web browser. The HTML syntax is based on a list of tags that describe the page's format and what is displayed on the Web page.” Techterms <<http://www.techterms.com/definition/html>> accessed 7 May 2013; T Berners-Lee, ‘Information Management: A Proposal’ - CERN (March 1989, May 1990) (The Original Proposal of the WWW, HTMLized’ <<http://www.w3.org/History/1989/proposal.html>> accessed 7 May 2013).

⁹⁹ IP Act of 36/2003/SL, s 7 (1) (b).

databases as well as their computer programs. The purpose of this process is to find out the link between originality and investment - which is one of the main themes of this thesis. Originality is required for the protection of certain works under copyright and this is the essence of copyright.¹⁰⁰ Section 1(1)(a) of the CDPA 1988 states that in order to qualify for copyright: literary, dramatic, musical and artistic works must all be original. In *University of London Press v University Tutorial Press*,¹⁰¹ Peterson J stated that:

“The word ‘original’ does not in this connection mean that the work must be the expression of original or inventive thought. Copyright Acts are not concerned with the originality of ideas, with the expression of thought ... Originality which is required relates to the expression of the thought. But the Act does not require that the expression must be in an original or novel form, but only that the work must not be copied from another work - that it should originate from the author”.¹⁰²

Therefore, originality is a requirement in certain parts of the statute for the consideration of copyright protection.¹⁰³ If it presented in the author’s own way, it is quite sufficient for the originality requirement of copyright. As noted before, a database is a collection of data and that data may already have copyright protection. The collection or compilation is the database creator’s or author’s method/manner of presentation. In *Infopaq International A/S v Danske Dagblades Forening*,¹⁰⁴ the ECJ held that, “Infopaq’s data capture process

¹⁰⁰ In the UK, CDPA 1988, s 1(1)(a); *University of London Press v University Tutorial Press* [1916] 2 Ch 601 at 608; In the US, 17 USC § 102(a); *National Comics Publications, Inc. v Fawcett Publications, Inc.*, 191 F.2d 594 (2d Cir. 1951); AT Dworkin, ‘Originality in the Law of Copyright’ (1962) 11 ASCAP-CLS 60 at 60; L Dreier, G Karnall, ‘Originality of the Copyright Work: A European Perspective’ (1992) 39 JCS-USA 289 at 298.

¹⁰¹ [1916] 2Ch 601.

¹⁰² *University of London Press, ibid.*, at 608.

¹⁰³ *University of London Press, ibid.*, at 608.

¹⁰⁴ Court of Justice of the European Communities (Fourth Chamber) [2012] Bus LR 102.

comes under the concept of reproduction as set out in Article 2 of the Copyright Directive,¹⁰⁵ if the elements reproduced are the expression of the intellectual creation of their author”.¹⁰⁶ In *British Horseracing Board Ltd and others v William Hill Organisation Ltd*,¹⁰⁷ it is stated that:

“Although the defendant is a lawful user of the database made accessible to the public, at least as regards the part of that database representing information about races, it appears from the order for reference that it carries out acts of extraction and re-utilisation within the meaning of article 7(2) of the [Database] Directive. It extracts data originating in the British Horseracing Board database by transferring them from one medium to another. It integrates those data into its own electronic system. Secondly, it re-utilises those data by making them available to the public on its internet site in order to allow its clients to bet on horse races”.¹⁰⁸

Therefore, this work has to be originated from the author if the work is to be protected by copyright.¹⁰⁹ Davison says that “originality is a difficult requirement in discussion of copyright protection”.¹¹⁰ He argues that, “[t]he difficulty is that the meaning of originality or intellectual creativity differs according to the relevant legal standard in a particular jurisdiction, and the way in which that

¹⁰⁵ Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society (OJ L167, 2001-06-22, P0010, OJ L6, 2002-01-10, P0070).

¹⁰⁶ “An act occurring during a data capture process, which consists of storing an extract of a protected work comprising 11 words and printing out that extract, is such as to come within the concept of reproduction in part within the meaning of Article 2 of Directive 2001/29/EC..., if the elements thus reproduced are the expression of the intellectual creation of their author; it is for the national court to make this determination”. *Infopaq International A/S v Danske Dagblades Forening* OJEU-C220/7 (12.9.2009) 52 (Internet)<<http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:220:0007:0007:EN:PDF>> accessed 10 January 2013.

¹⁰⁷ Court of Justice of the European Communities [2009] Bus. LR 932.

¹⁰⁸ *British Horseracing Board, ibid.*, at 941-942.

¹⁰⁹ *University of London Press* [1916] 2 Ch 601 at 608.

¹¹⁰ Davison, *The Legal Protection of Databases* 13.

particular standard is applied in individual cases”.¹¹¹ This difficulty is, therefore, highly relevant to digital databases as they do not have domestic limits on the Internet.¹¹² As with many digital databases elsewhere in the world, Sri Lankan digital databases are also part of the Internet and therefore this difficulty is applicable to them as well.

The concept of originality or intellectual creativity can, therefore, vary according to the jurisdiction in question. In order to solve this confusion, this thesis suggests that the consideration of the originality of the digital database be treated with reference to the place of registration of the database. For example, all databases whose operations are based in Sri Lanka should be registered under Sri Lankan law.¹¹³ The ‘sweat of the brow’ concept is one of the best approaches to show the originality¹¹⁴ of the author’s work which can be identified as the significant effort of the author to create a work.¹¹⁵ In relation to databases, the creators have worked out a structure in order to meaningfully make use of the data. This thesis establishes that this structure enhances the

¹¹¹ Davison, *ibid.*, 13; NP Gravells, ‘Authorship and originality: the persistent influence of *Walter v Lane*’ (2007) 3 IPQ 267 at 292.

¹¹² Internet, itself is a giant database. Most of the time, digital databases are part of Internet. Very few number of databases are running without connecting to the Internet. Most of them are in the non-digital formats.

¹¹³ Companies Act of Sri Lanka, No. 07 of 2007.

The Mission of the Department of Registrar of Companies of Sri Lanka is to establish business and other institutions under the relevant Acts in accordance with the economic and trade policy of the Government and to act in vigilance in regard to their effective functioning and to assist other commercial activities. Department of Registrar of Companies of Sri Lanka <<http://www.drc.gov.lk/App/comreg.nsf?Open>> accessed 14 February 2013.

¹¹⁴ An Australian judgement-*Telstra v Desktop Marketing Systems Pty Ltd* [2001] FCA 612.

¹¹⁵ JC Ginsburg, ‘Creation and Commercial Value: Copyright Protection of Works of Information’ (1990) 90 CLR 1865 at 1868-1869; Davison, *The Legal Protection of Databases* 14.

value of the data, and, furthermore, adds substantial value to the data.¹¹⁶ Computer programs in digital databases provide this structure because computer programs help to work out useful data patterns as part of a data mining process.¹¹⁷ This substantial value creates the originality of the database. The process of making this structure shows the concept of ‘sweat of the brow’ of the database creator and it further demonstrates the labour, skill and judgment of the database creator. The labour, skill and judgment of the database creator comprises the investment. In contrast, if the content of a database does not possess originality, the substantial investment involved in the obtaining, verification or presentation of content qualifies under the *sui generis* rights¹¹⁸ which is the main protection mechanism suggested by this thesis. Providing only copyright protection would therefore leave the investment without a complete protection. This is contrary to the very purpose of this thesis because it endeavours to protect the investment in order to attract the investment.¹¹⁹

After the implementation of the EU’s Database Directive,¹²⁰ the position under which databases were thought to be protected as compilations was changed. Originality is taken to be of a higher level than the traditional ‘skill, effort and labour’. However, copyright protection is not the only mechanism of database

¹¹⁶ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

¹¹⁷ Fayyad *et al.*, ‘From data mining to knowledge discovery in databases’ at 39.

¹¹⁸ C Sawdy, ‘High Court decision revisits protection of databases in the United Kingdom - Football Dataco Ltd v Britten Pools Ltd’ (Case Comment) (2010) 21/6 ELR 221 at 223.

¹¹⁹ See Chapter 1 at 1.6. The role of investment in database protection.

¹²⁰ Council Directive 96/9 EC (OJ L 077/20), art. 3(1), implemented in the UK by the Copyright and Rights in Databases Regulations 1997, SI1997/3032.

protection nor does it cover all aspects of databases. It needs to be combined with other mechanisms in order to protect the investment in digital databases. The 'sweat of the brow' test under US copyright law was criticised in *Feist v Rural Telephone Service Company Inc.*¹²¹ Justice O'Connor held that "a compilation must be original in the sense that it has been independently created by its author, and that it displays a minimal level¹²² of creativity before it can receive copyright protection".¹²³ If the level of creativity is comparatively low, Derclaye argues, "investment in making databases was left without effective protection"¹²⁴ and can be termed an under-protected database.¹²⁵ After *Feist*, the protection of a compilation or database (a compilation being the basic structure of a database) was deliberately neglected. The crux of the *Feist* argument was that listing in an alphabetical order was the only possible usable way of presenting the results and, therefore, creativity does not play any role in such a compilation or presentation. The characteristics of 'sweat of the brow' in this presentation of results were trivial and hardly noticeable. Mere presentation of collected information does not constitute a database and as such information needs to be managed or arranged in a creative way which should be capable of

¹²¹ *Feist Publications, Inc. v Rural Tel. Service Co.* 499 US 340 (1991); *Miller v Universal City Studios, Inc.* 650 F.2d 1365 (5th Cir.1985); *International News Service v Associated Press* 248 US 215 (1918).

¹²² "Rural's selection of listings could not be more obvious: it publishes the most basic information -- name, town, and telephone number -- about each person who applies to it for telephone service. This is 'selection' of a sort, but it lacks the modicum of creativity necessary to transform mere selection into copyrightable expression. Rural expended sufficient effort to make the white pages directory useful, but insufficient creativity to make it original". *Feist v Rural Telephone Service Company Inc.* 499 US 340 (1991) at 363-364 and further at 359.

¹²³ 499 US 340 (1991) at 346.

¹²⁴ Derclaye, *The Legal Protection of Databases: A Comparative Analysis 2.*

¹²⁵ Derclaye, *ibid.*, 265.

enhancing the value or usefulness of information.¹²⁶ Introducing creativity into a simple compilation and thereby enhancing the intellectual property protection afforded to it is a very costly process. It requires substantial investment and it is this investment that brings about creativity. Therefore, this investment should be protected as it provides incentives to the investors. Providing such incentives attracts future investment as this thesis has suggested throughout. The following reasoning was given in *Feist*:

“The primary objective of copyright is not to reward the labour of authors, but ‘to promote the Progress of Science and useful Arts’ ... to this end, copyright assures authors the right to their original expression, but encourages others to build freely upon the ideas and information conveyed by a work ... As applied to a factual compilation ... only the compiler’s selection and arrangement may be protected; the raw facts may be copied at will. This situation is not unfair. It is the means by which copyright advances the progress of science and art”.¹²⁷

As noted in this case, the primary objective of copyright is the encouragement of creativity whilst providing a balance between creators and the interests of the public.¹²⁸ It can be observed throughout copyright history that this has been one of the primary objectives of copyright.¹²⁹ Enhancing the value and/or usefulness of data is a type of creativity which is offered by computer programs in digital databases. Computer programs convert raw data into useful patterns which can be used in the process of KDD. This process is what ultimately creates useful

¹²⁶ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

¹²⁷ *Feist, supra* n.123, at 349-350.

¹²⁸ H Brown, D Miller, ‘Copyright Term Extension: Sapping American Creativity’ (1996) 44 JCS 94 at 99.

¹²⁹ EW Ploman, LC Hamilton, *Copyright: Intellectual Property in the Information Age* (Routledge & Kegan Paul 1980) 5; See this Chapter at 2.2. The history of copyright.

data and information.¹³⁰ For example, this process converts customers' data (raw data) into useful consumer patterns which have high value in business strategies.

While European continental systems require intellectual creation,¹³¹ the UK's concern is for originality. As stated in Section 1(1)(b) of the CDPA 1988, as amended, there is no express requirement for originality as such in relation to films, sound recordings, broadcasts and typographical arrangements of published editions. However, if those works arrive through the copying of previous creations it does not attract copyright protection.¹³² The database itself is a production of previous creations or the enhancement of previous creations. For example, a database of musical instruments may consist of different pictures of different instruments and sample musical recordings of such instruments. All of these have been created previously and may be part of previous creations. However, providing links to those previous creations is a part of the particular structure of the digital database. Installed computer programs in digital databases provide links to the previous creations at the demand of end users. Raw data from different databases can finally be brought into some kind of useful order in a particular digital database. This final result is presented by the creativity which is found in the digital database.

¹³⁰ Conley *et al*, 'Database Protection in a Digital World' at para 14.

¹³¹ Council Directive 93/98/EEC of 29 October 1993 harmonizing the term of protection of copyright and certain related rights (OJ L 290, 1993-11-24, P 009-0013), recitals 10, 11.

¹³² CDPA 1988, ss 5A (2), 5B (5) and 8(2).

2.4.1. Originality of computer programs in digital databases

When this thesis proposes a new system to protect digital databases, consideration should be had for computer programs which have material that has been taken from pre-existing sources. The author has enhanced that pre-existing material by alterations of plan, arrangement or text. It may then be original.¹³³ This thesis proposes to protect the investment in the process of alterations of plan, arrangement or text in computer programs of digital databases.

Article 1(3) of the Software Directive 1991¹³⁴ declares that a computer program will be protected if it is original in the sense that it is the author's own intellectual creation.¹³⁵ The wording, 'the author's own intellectual creation', is found in Section 3A of the CDPA 1988 which says that, "a literary work constituting of a database is original, and only if, by reason of the selection or arrangement of the content of the database, the database constitutes the author's own intellectual creation". "Computer programs, for copyright purposes, are literary works and they are protected by copyright law in the UK if they are original and have been recorded, in writing or in other ways".¹³⁶ Computer programs in

¹³³ See this Chapter at 2.5.4. Originality.

¹³⁴ Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs (Codified version) (OJ L 122, 1991-05-17, P009–0013).

¹³⁵ *Infopaq International A/S v Danske Dagblades Forening* European Court of Justice (Fourth Chamber)[2012] Bus LR 102.

¹³⁶ D Bainbridge, *Software Copyright Law* (4th edn, Butterworths 1999) 49 [hereafter Bainbridge, *Software Copyright Law*].

digital databases manipulate the process of selection or arrangement of data in a particular digital database.¹³⁷

By contrast, the originality of the computer program presents a conundrum. The computer program may be a part of a pre-existing work or extension of a pre-existing work. In line with these definitions, computer programs do not attract originality as a requirement of copyright. This argument was put forward by the Privy Council in their rejection of the Lego case (*Interlego AG v Tyco International Inc.*¹³⁸). There, “it was suggested that engineering drawings which were very largely copied from previous drawings but represented an updating of the pre-existing designs by the incorporation of small but technically significant modifications, were original copyrighted works”.¹³⁹ While rejecting this argument the Privy Council held that, “skill, labour or judgment merely in the process of copying cannot confer originality”.¹⁴⁰ This further shows that the modifications of pre-existing works do not constitute originality unless it is the right type of modification.¹⁴¹ If it is an improvement to a pre-existing work, the standpoint may then be different: “A computer program may still be original even if it includes material taken from pre-existing sources provided that the author has added improvements to that pre-existing material, whether consisting of

¹³⁷ Pattison, ‘The European Commission’s Proposal on the Protection of Computer Databases’ at 115.

¹³⁸ [1989] AC 217.

¹³⁹ Carr, R Arnold, *Computer software: Legal protection in the United Kingdom* 53.

¹⁴⁰ *Interlego AG v Tyco Industries Inc & Ors (Hong Kong)* [1988] UKPC 3 (05 May 1988), [1988] RPC 343 at 371; *Macmillan & Co. Ltd. v Cooper* (1924) 40 TLR 186.

¹⁴¹ *Interlego*, *ibid.*

alterations to plan, arrangement or text”.¹⁴² For this purpose, improvements should add substantial value and a high level of material effect on the program. The way of expression in a computer program must be original and it must have originated from the author’s own work. Improvements which add a substantive level and high level of material effect which are brought by investment (considerable skill and labour¹⁴³).

In summary, if the computer program in digital databases includes material taken from pre-existing sources and the author has enhanced the pre-existing material by alterations of plan, arrangement or text, it may then be considered original. When this thesis outlines a new system to protect databases in relation to computer programs, this substantial investment should be taken into account. In so doing, this thesis proposes to protect this substantial investment in computer programs in digital databases.

2.4.2. European Union view of originality

Intellectual creativity is “the main focus standard of originality in many European countries”.¹⁴⁴ Many of these countries describe creativity as the authors’ personality¹⁴⁵ in the work. However, the test applied may vary from country to country and may have various degrees of strictness.¹⁴⁶ This variation and

¹⁴² Carr, R Arnold, *Computer software: Legal protection in the United Kingdom* 55.

¹⁴³ Carr, R Arnold, *ibid.*, 55.

¹⁴⁴ Davison, *The Legal Protection of Databases* 16.

¹⁴⁵ CB Macpherson (ed), *John Locke: Second Treaties of Government* (Hackett Publishing 1980) 16.

¹⁴⁶ “The German Federal Copyright Act of 9 September 1965, s. 2(2) defines a work as a personal intellectual creation; Italy, Law for the Protection of Copyright and Neighbouring

higher standard reflect that copyright works are regarded as an extension of the author's personality which needs to be protected as he has made an investment in it. John Locke argued that "every human being is the owner of his own person so he must have a property right on the fruit on his own labour"¹⁴⁷ and Jeremy Bentham noted that "[p]roperty and law are born together, and die together".¹⁴⁸ These arguments suggest that the investment beneath the creation must be protected.

A computer program as a part of a digital database requires originality in order to comply with copyright protection requirement. The background to this notion has links with the Berne Convention 1886.¹⁴⁹ The Berne Convention, last revised July 24, 1971, "does not provide for a uniform originality test but refers to the laws as established by each country".¹⁵⁰ The Convention specifically states that: "[t]ranslations, adaptations ... and other alterations of a literary or artistic work shall be protected as original works without prejudice to the

Rights Article, Law No. 633 of 22 April 1941, Article 6 states: 'Copyright shall be acquired on the creation of a work that constitutes the particular expression of an intellectual effort.'; France, Intellectual Property Code, Law No. 92-597 of 1 July 1992 protects the rights of authors in 'all works of the mind' in Article L112-1; The Belgian Supreme Court has held that the creation must be 'the expression of the intellectual effort of the one that realized it, which is an indispensable condition to confer to the work the individual character without which there would be no creation', Cass. 27 April 1989, Pas, 1989, I, 908". cited in Davison, *The Legal Protection of Databases* 16 footnote 23.

¹⁴⁷ CB Macpherson (ed), *John Locke: Second Treaties of Government* (Hackett Publishing 1980) 16; For Margaret Jane Radin, see MJ Radin, 'Property and Personhood' (May 1982) 34/5 SLR 995 and for Hegel, see M Davies, N Naffine, *Are Persons Property? Legal debate about property and personality* (Ashgate 2001) 6; See Chapter 1 at 1.2.1. Using economics as an approach to the concept of 'property'.

¹⁴⁸ M Davies, N Naffine, *ibid.*, 184.

¹⁴⁹ Berne Convention for the Protection of Literary and Artistic Works Sept. 9, 1886.

¹⁵⁰ Berne Convention 1886, art. 2, para. 7, as last revised July 24, 1971, 25 U.S.T. 1341, 828 U.N.T.S. 221 cited in Software Freedom Law Center, 'Originality Requirements under U.S. and E.U. Copyright Law' (2007) September, SFLC (Internet) <<http://softwarefreedom.org/resources/2007/originality-requirements.html#fn68x0>> accessed 15 May 2013.

copyright in the original work”.¹⁵¹ This provision is also applicable to computer programs which are employed in digital databases as an extension of pre-existing work or derivative work and are, therefore, protected under the “Berne Convention if they meet the normal standards for derivative works of literary and artistic work”.¹⁵² As further discussed by the ECJ in *Bezpečnostní softwarová asociace – Svaz softwarové ochrany v Ministerstvo kultury*,¹⁵³ this issue is examined in the Computer Program Directive 91/250/EEC.¹⁵⁴ Article 1 requires that “[a] computer program shall be protected if it is original in the sense that it is the author’s own intellectual creation. No other criteria shall be applied to determine its eligibility for protection”. The same legal point has been examined in *Infopaq International A/S v Danske Dagblades Forening*.¹⁵⁵ In this case, the ECJ held that “Infopaq’s data capture process comes within the concept of reproduction as set out in Article 2 of the Copyright Directive, if the elements thus reproduced are the expression of the intellectual creation of their author”.¹⁵⁶

On the basis of the *Football Dataco Ltd*¹⁵⁷ decision, databases can have sufficient originality through the selection or arrangement of the content of the

¹⁵¹ Berne Convention for the Protection of Literary and Artistic Works 1886, art 2, para. 3 cited in Software Freedom Law Center, *ibid.*

¹⁵² Software Freedom Law Center, *ibid.*

¹⁵³ European Court of Justice (Third Chamber) [2011] ECDR 3.

¹⁵⁴ Directive on the legal protection of computer programs 91/250/EEC, re-codified in 2009/24/EC (OJ L 122, 1991-05-17, P00 9–0013).

¹⁵⁵ (Case C-5/08) European Court of Justice [2012] Bus LR 102.

¹⁵⁶ *Infopaq International A/S*, *ibid.*, at 109.

¹⁵⁷ [2010] EWHC Ch 841.

database.¹⁵⁸ Selection or arrangement is done by a computer program in the digital database and is a result of investment by a database author or owner. In line with the *sui generis* database protection, “it is sufficient to show the originality in the process of selection or arrangement of data in databases”.¹⁵⁹ The problem of originality lies with the selection or arrangement of the database. If this process shows the database author’s own intellectual capacity, it is sufficient to be given protection under copyright.

In digital databases, the manner of data ordering (the data pattern) is often decided by the computer programs used.¹⁶⁰ The structure of the expression of data is created and controlled by the computer program:

“For example, many grocery stores today offer discount cards to customers who will provide identifying and demographic information. The checkout computer then creates a precise record of each individual’s purchasing habits. When organized by residence pattern, income level, etc., and distributed in a usable format, this data can be of enormous value to a variety of retail interests. A chain thinking of opening an Italian restaurant in a particular neighbourhood can find out exactly how much the residents spend on Italian food at the grocery store. What was once low market-value, or even useless, data - a wastebasket full of cash register receipts - has been transformed into a marketing goldmine”.¹⁶¹

This shows the functional benefits of a computer program in digital databases.

This example can be applied to the emerging Sri Lankan trend in tourism. The data of consumer (tourist) patterns would help in decisions on providing

¹⁵⁸ C Sawdy, ‘High Court decision revisits protection of databases in the United Kingdom - *Football Dataco Ltd v Brittens Pools Ltd*’ (Case Comment) (2010) 21/6 ELR 221 at 224.

¹⁵⁹ *Information AG v IMS Health GmbH & Co OHG* also [2005] ECC 12.

¹⁶⁰ Conley *et al.*, ‘Database Protection in a Digital World’ at paras 13; Tessensohn, ‘The Devil’s In The Details’ at 440.

¹⁶¹ Conley *et al.*, *ibid.*, at para 14.

accommodation, transportation and decisions on promotional campaigning in a particular period of the year.

Although the CDPA 1988 does not define the meaning of a 'computer program', it states that a computer program and its preparatory design material are literary works. In the UK, "the originality requirement does not demand novelty or merit merely that the work should originate from the author, and should not have been copied from another source".¹⁶² Under this 'narrow interpretation',¹⁶³ a collection of data which have been copied from other sources is protected under the UK copyright law. However, the particular combination should not be copied from a previous source and the combination itself should demonstrate "the compiler's own skill, labour and judgement".¹⁶⁴

In contrast, under the Database Directive,¹⁶⁵ its protection does not apply to computer programs used in the making or operation of databases accessible by electronic means.¹⁶⁶ It can be observed that there are two reasons behind this. First, as discussed above, computer programs have the same copyright protection that literary works have. Second, the protection under the Database Directive lies only with the compilation effort and content of the database, not

¹⁶² S Lai, *The Copyright Protection of Computer Software in the United Kingdom* (Hart Publishing 2000) 16.

¹⁶³ Prof Colin Tapper describes this as *minimalist interpretation* - M Lehmann, CF Tapper (eds) *A Handbook on European Software Law* (OUP 1993) 147.

¹⁶⁴ S Lai, *supra* n.162, 16.

¹⁶⁵ Council Directive 96/9 EC (OJ L 077/20).

¹⁶⁶ Council Directive 96/9 EC (OJ L 077/20), art. 1(3), implemented in the UK by the Copyright and Rights in Databases Regulations 1997, SI1997/3032, Computer programs have copyright as such.

the “mechanism of the manipulation and presentation”¹⁶⁷ of data. Database Directive does not consider the digital formation of the databases. The proposed Sri Lankan system should be created in such a way that computer programs and content of data in digital databases are treated as one component for the purpose of digital database protection. Computer programs which operate the data in digital databases do not exist independently of the particular database as they have been written specifically to be used with that particular digital database. Davison states that:

“[T]he investment in obtaining the information may be sufficient to meet the requirement of originality, even though the selection or arrangement of the works or data in the database does not reflect the requirement of creativity. This helps to find out whether the database is entitled to copyright protection...Those approaches to originality that reject the sweat of the brow approach involve an analysis of the nature of effort involved in making the database. Under this approach, there must be some intellectual creativity in the selection or arrangement of the pre-existing works or data”.¹⁶⁸

Furthermore, the approaches that come under the Database Directive reject the ‘sweat of the brow’ concept and engage in an analysis of the nature of the effort involved in making a database. This shows that it is sufficient to fulfil the intellectual creativity in the selection or arrangement of the pre-existing works or data.¹⁶⁹ In relation to this point Davison argues that, “the actual selection of material often does not involve any significant intellectual input or, indeed, any significant effort at all”.¹⁷⁰ As he explains, the reason behind this is that “the database will often be designed to provide and contain all the information within

¹⁶⁷ Pattison, ‘The European Commission’s Proposal on the Protection of Computer Databases’ at 115.

¹⁶⁸ Davison, *The Legal Protection of Databases* 18-19.

¹⁶⁹ Davison, *ibid.*, 18-19.

¹⁷⁰ Davison, *ibid.*, 19.

a given area”.¹⁷¹ However, in a digital database, a particular computer program contains a significant intellectual process - “Knowledge discovery and data mining are techniques to discover strategic information hidden in very large databases,”¹⁷² and this creates intellectual output which has never existed before.¹⁷³ This is the fruit of functions of computer programs in digital databases. This fruit is new knowledge through the process of KDD.

As this thesis suggests throughout, a particular computer program is created to be used in a particular digital database.¹⁷⁴ Therefore, it is specific for the purpose and specific for the particular database.¹⁷⁵ Without a significant intellectual input or intellectual effort it is impossible to write such a program. Intellectual effort denotes an investment in both the program and the digital database. Investors in the digital database arena in the Sri Lankan economy expect a return on investment on this intellectual effort. An acceptable standard of protection on investments in intellectual effort, as this research suggests, provides the background for the return which is expected by investors.¹⁷⁶ Mansfield examines this point with special reference to Germany, Japan and the United States. In these countries intellectual property protection was one of

¹⁷¹ Davison, *ibid.*, 19.

¹⁷² Goebel, L Gruenwald, ‘A Survey of Data Mining and Knowledge Discovery Software Tools’ at 20.

¹⁷³ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

¹⁷⁴ See Chapter 3.

¹⁷⁵ Pattison, ‘The European Commission’s Proposal on the Protection of Computer Databases’ at 115; See Chapter 3.

¹⁷⁶ CAP Braga, C Fink, ‘The Relationship Between Intellectual Property Rights and Foreign Direct Investment’ (1998-1999) 9 DJCIL 163 at 164, 168 and 175-176; See Chapter 1 at 1.6. The role of investment in database protection.

the main effects on investors' investment decisions. Mansfield further states that:

“As would be expected, the percentage reporting that such protection is important tends to be lower for investment in sale and distribution outlets and in rudimentary production and assembly operations than for investment in facilities to manufacture components or complete products or to do research and development. This is true in all three countries”.¹⁷⁷

In this regard, Maskus states that countries which want to attract trade, investment, especially Foreign Direct Investment (FDI), and technological advancements should have strong programmes which provide greater protection for the intellectual property.¹⁷⁸ These kinds of programmes help to attract the benefits of globalization. As Maskus notes:

“Such broader programs should include 1) promoting political stability and economic growth, 2) encouraging flexible labor markets and building labor skills, 3) continued market liberalization, and 4) ‘developing forward-looking regulatory regimes in services,’ investment, intellectual property, and competition policy. IPRs are an important element of this broader policy designed to maximize the benefits of expanded market access and to promote dynamic competition in which local firms can meaningfully take part”.¹⁷⁹

As outlined in detail under Chapter 1 at 1.6.6, political stability and the process of economic growth in the country have been the main reasons for examining the potential for attracting investments for the field of digital database. In fact, intellectual property protection should address the investment beneath the creations in order to work out such protection in the sphere of political and

¹⁷⁷ E Mansfield, ‘Intellectual Property Protection, Direct Investment, and Technology Transfer: Germany, Japan and the United States’ (September 1995) The World Bank, International Finance Corporation, Discussion Paper No 27 1995, at 2.

¹⁷⁸ KE Maskus, ‘The Role of Intellectual Property Rights in Encouraging Foreign Direct Investment and Technology Transfer’ (1998-1999) 9 DJCIL 109 at 112.

¹⁷⁹ KE Maskus, *ibid.*, at 112-113.

economic stability. This situation opens an avenue for a better competition which further stimulates the development in developing countries. Similarly, Yu writes:

“With the globalization of the world economy, developing countries find that maintaining competitiveness is an essential factor in development. Economics in the developed and developing countries alike agree that the ability to develop and commercialize applied knowledge - the end products of research and development - is the main source of a country’s competitive capability and economic growth”.¹⁸⁰

However, still it there is a struggle to attract investors and world-class technologies¹⁸¹ to the developing countries. One of the main reasons behind this is the fact that intellectual property protection mechanisms do not address the protection of investment through their IPR policies. Yu further emphasise that:

“The lack of IP protection to these end products in developing countries has generated a hostile environment for foreign and domestic investment that constitutes the main source that has hampered the economic growth potential of those countries....‘One of the main reasons is failure to provide adequate and effective protection for IP, which has already proved to be a barrier to free trade or rather a form of unfair trade’”.¹⁸²

These practical situations show the acceptable level of protection that should provide the possibility of a better return on investment. Therefore, it is important to provide protection of investment despite the nature of the contribution of computer programs in digital databases. Whatever the nature of computer

¹⁸⁰ J Yu, ‘Can Developing Countries Benefit From Intellectual Property Protection’ (2002-2003) 10 TFLR 359 at 361; HC Hansen, *International Intellectual Property Law & Policy* (Juris Publishing, Inc. 1996) 179.

¹⁸¹ J Yu, *ibid.*, at 361.

¹⁸² J Yu, *ibid.*, at 361; HC Hansen, *supra* n.180, 179.

programs may be, i.e. computer-generated or computer-assisted, a significant intellectual input or intellectual effort has been expended in the creation of such programs for digital databases. Intellectual efforts are backed by investment which needs to be protected in order to attract future investment.¹⁸³

2.5. Authorship of the underlying computer program

Davison makes the point that: “Work cannot be original unless it has an author or a person or group of people from whom the work emanates”.¹⁸⁴ Digital databases consist of a combination of effort of the human author and computer program. A modern digital database normally consists of three parts:

“The first part is the computer program which operates the database. The second part of the database is the data which is actually stored in it. This data is normally arranged as a sequence of *records* [i.e. useful data pattern which is the fruit of data mining process¹⁸⁵]. The third part is the means of accessing the information for a particular application...[For example] [i]f a telephone directory database arranged ... is used to produce a standard telephone book containing all the entries in the database, then the appropriate commands need to be given to the database program. This is the ‘system for obtaining or presenting information’ to which reference is made in the definition. The required commands are given to the database in a formal language which is dependent on the particular database being used”.¹⁸⁶

Initially, these commands are created by the human author. These two components, i.e. human author and computer programs, themselves denote the investment which has been made in order to create a skilled human author and

¹⁸³ See Chapter 1 at 1.6. The role of investment in database protection.

¹⁸⁴ Davison, *The Legal Protection of Databases* 21.

¹⁸⁵ Fayyad *et al.*, ‘From data mining to knowledge discovery in databases’ at 39.

¹⁸⁶ Pattison, ‘The European Commission’s Proposal on the Protection of Computer Databases’ at 115.

workable computer programs. The authorship of a digital database is a controversial issue because of the fact that digital databases have these two authors. As noted above, the process of selection and arrangement is initially done by the human author and subsequently continued by the computer program. Therefore, this is one of the most complicated issues in relation to the protection of digital databases in terms of authorship in copyright protection. Hence, when setting up a new mechanism for the protection of digital databases in Sri Lanka, the points of authorship should be taken into account as they are linked to the investment. Lack of consideration of authorship would minimise the protection of investment which is linked with the need to attract further investment.

In the copyright context, sometimes in some database functions, the database does not have human authors. This situation appears with digital databases where there is no human author and the end result is as a result of functions of a computer program. An example of this is digital library. Computer programs in digital databases automatically select, arrange and organise the data.¹⁸⁷ Selection and arrangement are required for a database in order to work out a useful data pattern: "Selection means choosing the contents of the database whilst arrangement may be more to do with the design of the database".¹⁸⁸ In digital databases, the selection is done by a human author or computer program, while the arrangement is automatically operated by a computer program which is specifically created for the particular database. However, this

¹⁸⁷ *Warren Publishing, Inc., v Microdos Data Corp.* 115 F.3d 1509 (11th Cir. 1997); *Bell South Advertising & Publishing Corporation v Donnelley Information Publishing Inc.* 999 F.2d 1436 (11th Cir. 1993).

¹⁸⁸ Bainbridge, *Software Copyright Law* 188.

does not mean that the involvement of a computer program is present throughout the entire database. Human involvement can be seen in the process of adding, removing and updating of data. Furthermore, the correct and appropriate computer program has been selected by human beings. On this point, Davison argues that, “copyright subsists in the computer program as a literary work and that copyright is quite separate from any copyright in the database”.¹⁸⁹ This classification has been created by the CDPA 1988. As stated in the CDPA 1988, computer programs are copyrighted as literary works and databases are protected as a separate component. This thesis does not make any separation between computer programs and digital databases because digital databases and computer programs are interdependent.¹⁹⁰ The proposed system suggests that the computer program in digital databases is to be considered as a part of the digital database even if it is written by a separate programmer.

The above mentioned point is mainly based on the process of creating and updating of databases and computer programs’ involvement in such a process. This process reflects the wording and meaning of selection and arrangement. In *Football Dataco Ltd*,¹⁹¹ as a part of the process of finding the originality of

¹⁸⁹ Davison, *The Legal Protection of Databases* 21.

¹⁹⁰ Pattison, ‘The European Commission’s Proposal on the Protection of Computer Databases’ at 115.

¹⁹¹ *Football Dataco Ltd, The Football Association Premier League Ltd, The Football League Ltd, The Scottish Premier League Ltd, The Scottish Football League, PA Sport UK Ltd v Yahoo! UK Ltd, Stan James (Abingdon) Ltd, Stan James plc, Enetpulse* [2010] EWCA Civ 1380; In the appellate judgment the Court of Justice of the European Union (Third Chamber) rules:

“1. Article 3(1) of [Database] Directive...must be interpreted as meaning that a “database” within the meaning of art.1(2) of that directive is protected by the copyright laid down by that directive provided that the selection or arrangement of the data which it contains

database, this wording has been examined. The question was whether these words constituted the concept of an author's own intellectual creation. In this case, the question, *inter alia*, was "whether 'selection or arrangement' included adding important significance to a pre-existing item of data".¹⁹² The court's judgement was in the affirmative as there is specific mention that Article 3 of the Database Directive "requires that the work of selecting and arranging be the 'author's own intellectual creation'".¹⁹³ This means that it constituted a database and therefore it was the author's own intellectual creation. At this point, if the selection and arrangement were carried out by the intervention of the computer program, it would mean that the particular program had created the database. This provides a legal sense to the particular database. The essence of this argument demonstrates that the computer program in a database is a part thereof and that the program does not exist independently. Hence, the investment in digital databases demonstrates the proposition that the

amounts to an original expression of the creative freedom of its author, which is a matter for the national court to determine. As a consequence:

- the intellectual effort and skill of creating that data are not relevant in order to assess the eligibility of that database for protection by that right;
- it is irrelevant, for that purpose, whether or not the selection or arrangement of that data includes the addition of important significance to that data, and
- the significant labour and skill required for setting up that database cannot as such justify such a protection if they do not express any originality in the selection or arrangement of the data which that database contains.

2. Directive ... must be interpreted as meaning that, subject to the transitional provision contained in art.14(2) of that directive, it precludes national legislation which grants databases, as defined in art.1(2) of the directive, copyright protection under conditions which are different to those set out in art.3(1) of the directive." *Football Dataco Ltd v Yahoo! UK Ltd* [2013] FSR 1 at 25-26.

¹⁹² *Football Dataco Ltd, The Football Association Premier League Ltd, The Football League Ltd, The Scottish Premier League Ltd, The Scottish Football League, PA Sport UK Ltd v Yahoo! UK Ltd, Stan James (Abingdon) Ltd, Stan James plc, Enepulse* [2010] EWCA Civ 1380 at para 22.

¹⁹³ *Football Dataco Ltd, ibid.*, at para 21.

investment in computer programs and protection of digital databases should address both of these at the same time. This helps to attract investment to the field.¹⁹⁴

However, in the appeal of *Football Dataco Ltd v Yahoo! UK Ltd*, the Court of Justice of the European Union (Third Chamber) decided that in order to assess the possibility of protecting that database, effectively it is necessary to exclude the intellectual effort and skilled used to create the data therein.¹⁹⁵ This means that the CJEU has not effectively considered the contribution of computer program in digital databases.

The author of a database can claim authorship by “virtue of having considered the possible outcomes of their input into the database”.¹⁹⁶ This input is selected by the author of a digital database. The process of this input is brought about by the investment which has been done by the author himself or the owner. The outcomes are created by the operation of the computer program in the digital database. This operation can be seen in the processes of KDD. In this knowledge process, computer programs work out useful data patterns.¹⁹⁷

The two elements, i.e. human and computer programs create the creativity required for copyright protection of digital databases. To overcome this contentious issue within the proposed Sri Lankan system, the simple solution is that the computer program in digital databases should be considered as part of

¹⁹⁴ See Chapter 1 at 1.6. The role of investment in database protection.

¹⁹⁵ *Football Dataco Ltd v Yahoo! UK Ltd* [2013] FSR 1 at 25-26.

¹⁹⁶ Davison, *The Legal Protection of Databases* 23.

¹⁹⁷ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

the particular digital database. A digital database is a collective effort which consists of the work of a human author and a computer program which has been specifically written for a particular database. Data in databases and computer programs of databases are interdependent. These reasons support the argument that computer programs in digital databases should be considered part of the database itself.

2.5.1. Computer-generated works underlying the database

When introducing a new system for the protection of Sri Lankan digital databases, it is important to clarify the contribution of the human author and the computer program. The contribution of computer programs can be seen in computer-generated works and computer-assisted works. However, this classification i.e. computer-generated works and computer-assisted works makes a clear difference in the mechanism of protection of digital databases, whether it is in Sri Lanka or some other place around the world. This classification should be taken into account when setting up a new law in Sri Lanka and that law should reflect the meaning of this classification.

The end result of a digital database is generated through the process of a computer program and the contribution of a human author. The underlying work, however, may be a computer-generated work.¹⁹⁸ Computer-generated¹⁹⁹ works have been treated differently in terms of the meaning of authorship. The UK has already legislated that the author of a computer-generated work is the

¹⁹⁸ This is somewhat real chicken and egg situation.

¹⁹⁹ *Express Newspapers v Liverpool Daily Post* [1985] FSR 306, [1985] 1 WLR 1089; S Smith, 'Legal protection of factual compilations and databases in England - how will the Database Directive change the law in this area?' (1997) 4 IPQ 450 at 465.

person who makes the necessary arrangements for the creation of the work.²⁰⁰ These works are defined as being “generated by a computer in circumstances such that there is no human author of the work”.²⁰¹ As a computer program is a literary work, “a computer-generated computer program is a theoretical possibility”.²⁰² As noted in Section 9(3) CDPA 1988, “a computer generated work does have an author and that author will almost always be a human being”,²⁰³ unless the content and form of the work are determined by the computer program alone. As the 1988 Act is silent on the circumstances where there is no human author, it can be argued that there is always a human author because it is the skill of the programmer which determines the content of the computer generated work.²⁰⁴

To overcome these issues, this thesis suggests that the computer program and digital database be considered as one component. The particular computer program has been written specifically for the functions of the particular digital database. Therefore, it is a part of the digital database and neither exists independently of the other. The proposed system assumes that the Sri Lankan digital databases are one component for the purpose of legal protection.

²⁰⁰ CDPA 1988, s 9(3).

²⁰¹ CDPA 1988, s 178.

²⁰² Bainbridge, *Software Copyright Law* 247.

²⁰³ Bainbridge, *ibid.*, 270.

²⁰⁴ CDPA 1988, ss 9(3), 178.

2.5.2. Computer-assisted works

As suggested in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, “software-based processes and systems should be eligible for intellectual protection as long as they manipulate data for some useful purpose”.²⁰⁵ This useful purpose is to find out new knowledge from a collection of data, given that: “Knowledge discovery and data mining are techniques to discover strategic information hidden in very large databases”.²⁰⁶ Having referred to *State Street Bank & Trust Co. v. Signature Financial Group, Inc. Conley et al.*, states that:

“[I]nformation systems whose value lies primarily in their search and organization tools will find protection under the well-established principles of both copyright and patent law”.²⁰⁷

Furthermore, in *State Street Bank & Trust Co.* it was held that the meaning of the assistance of a computer in a system allows the possibility of protection under intellectual property law.²⁰⁸ Therefore, it is important to examine the role of a computer program in a database despite its form of assistance, as this provides protection over the investment in computer programs in digital databases. This helps to attract investment in computer programs in digital databases in Sri Lanka.

Work that is done with the aid of a computer is considered computer-assisted work. In *Haupt v Brewers Marketing Intelligence (Pty) Ltd* it was held that,

²⁰⁵ 149 F.3d 1368 (Fed. Cir. 1998).

²⁰⁶ Goebel, L Gruenwald, ‘A Survey of Data Mining and Knowledge Discovery Software Tools’ at 20; See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

²⁰⁷ Conley *et al.*, ‘Database Protection in a Digital World’ at para 62; *State Street Bank & Trust Co. v Signature Financial Group, Inc* 149 F.3d 1368 (Fed. Cir. 1998) at 1371-1372.

²⁰⁸ *State Street Bank & Trust Co. ibid.*

“a work only qualifies as having been computer-generated if it was created by a computer in circumstances where there is no human author of the work. If there is a human author, the work is computer-assisted and not computer-generated”.²⁰⁹ In this scenario, the computer has been used as a tool. The author using the computer and the work are linked directly in a creative sense. The outcome and the content of the work are governed by the author or operator using the computer program. The operator does not make any positive contribution, and the author’s role is wider than that of the operator. The author is creatively involved in obtaining the end result; not so the operator. Most of the time computer-assisted work reflects the role of the operator. For example, computer-assisted music composition²¹⁰ is considered computer-assisted work. Computer programs in digital databases actively participate in the process of KDD.²¹¹ The role of the computer program in a digital database is, therefore, wider than the role of a program in a computer-assisted work. Conley *et al.*, state that:

“A database ... forms of digital property: raw data ... and tools, which are programs that can be used to communicate, store, or manipulate raw data. A fully developed database is an interrelated set of components capable of generating value from the collection, processing, merger, storage, or dissemination of data. In practice, databases are arrayed along a continuum according to where their primary value lies. At one end are those whose value depends on the

²⁰⁹ [2006] SCA 39 (RSA) at para 31; LA Tong, ‘Copyright and computer programs, computer-generated works and databases in South Africa’ (Case Comment) (2006) 28/12 EIPR 625 at 628.

²¹⁰ A Horner, D Goldberg, ‘Genetic algorithms and computer-assisted music composition’ (1991) 51/ 61801 Urbana 14.

²¹¹ Pattison, ‘The European Commission’s Proposal on the Protection of Computer Databases’ at 115; Conley *et al.*, ‘Database Protection in a Digital World’ at para 13; See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

data themselves. At the other end are those databases whose critical element is the system for manipulating the data”.²¹²

Therefore, computer programs in digital databases actively and creatively participate in order to obtain the end result.²¹³ Computer programs cannot create or produce an end result in a computer-assisted work without the involvement of an operator. After being instructed by the author,²¹⁴ a computer program in a database can produce an end result independently. Therefore, the role of the computer program in a digital database is important and the way that it is employed determines the authorship as well as the protection under the copyright law. As noted above, “[a] database, or information system, contains two primary forms of digital property: raw data, which can be a source of knowledge or entertainment value, and tools, which are programs that can be used to communicate, store, or manipulate raw data”.²¹⁵ This process, i.e. ‘communication’,²¹⁶ ‘manipulation’²¹⁷ and ‘arrangement of useful patterns of raw data’,²¹⁸ helps in the process of KDD.²¹⁹ This process of knowledge discovery

²¹² Conley *et al.*, *ibid.*, at para 13.

²¹³ Pattison, ‘The European Commission’s Proposal on the Protection of Computer Databases’ at 115; See Chapter 3.

²¹⁴ Directive 2009/24/EC of The European Parliament and of the Council of 23 April 2009 on the Legal Protection of Computer Programs (Codified version) (OJ L 122, 1991-05-17, P009–0013), art. 2.

²¹⁵ Conley *et al.*, ‘Database Protection in a Digital World’ at para 13.

²¹⁶ BH Kwasnik, ‘The Role of Classification in Knowledge Representation and Discovery’ (Summer 1999) 48/1 LT-JHUP 22; GG Chowdhury, ‘Template Mining for Information Extraction from Digital Documents’ (Summer 1999) 48/1 LT-JHUP 182.

²¹⁷ WJ Frawley *et al.*, ‘Knowledge Discovery in Databases: An Overview’ (1992) 13/3 AIM 57 at 61, 64; Herr, ‘Is the *Sui Generis* Right a Failed Experiment?’ at 29.

²¹⁸ Fayyad *et al.*, ‘From data mining to knowledge discovery in databases’ at 39.

²¹⁹ Goebel, L Gruenwald, ‘A Survey of Data Mining and Knowledge Discovery Software Tools’ at 21; Fayyad *et al.*, ‘From data mining to knowledge discovery in databases’ at 39; See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

ultimately creates new knowledge in the same way that a combination of existing thoughts brings new ideas.²²⁰

2.5.3. Copyright law practice in Sri Lanka

Sri Lankan copyright law takes two forms - moral rights²²¹ and economic rights.²²² The economic rights include the right to reproduce, sell, rent, distribute, communicate to the public, and translate;²²³ while moral rights cover the right to claim the authorship and right to oppose distortion or mutilation of the work.²²⁴ The basis of these economic rights derives from the Berne Convention 1886.²²⁵ The author or the owner is the holder of these economic rights and they can be assigned or licensed. In the case of work done by employees, the rights go to the employer. The moral rights are always with the author.²²⁶

As noted by the National Intellectual Property Office of Sri Lanka, Sri Lankan copyright law covers: “original literary and artistic works, writings such as books, computer programs, articles, oral works such as speeches and lectures,

²²⁰ Griffin, ‘The Copyright Balancing Exercise in the Digital Era: A Proposal for Reform’ at 140.

²²¹ IP Act of 36/2003/SL, s 10.

²²² IP Act of 36/2003/SL, s 9.

²²³ IP Act of 36/2003/SL, s 9(1).

²²⁴ IP Act of 36/2003/SL, s 10(1).

²²⁵ The Bern Convention recognises transferable economic rights enabling copyright owners to control translation (art 8), reproduction (art 9, art 14), public performance and communication of dramatic and musical works (art. 11, 14) in relation to their works.

²²⁶ The Bern Convention developed the concept of non-transferrable (inalienable) moral rights. These rights are reinforced by their recognition in the 1948 Universal Declaration of Human Rights. Its Article 27(2) states that “everyone has the right to the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author”.

dramas, musical works, films, drawings, paintings and photographs. Works such as databases and translations are also protected”.²²⁷ The legal background of this wording comes from the IP Act of 36/2003/SL. Although this Act uses the word ‘database’, it does not interpret its meaning.

2.5.4. Originality

The objective of copyright protection in Sri Lanka can be found in Section 6(1) of the IP Act of 36/2003/SL. It states that authors of original literary, artistic and scientific works are entitled to protect their works under copyright law. The Intellectual Property Code,²²⁸ as amended, does not provide a definition of ‘originality,’ and the IP Act of 36/2003/SL is also silent in this regard. Even though this Act provides legal protection under copyright law, it does not provide a definition of the word database.

Sri Lankan judges have followed English law to interpret originality.²²⁹ In *Wijesinha Mahanamahewa and Another v. Austin Canter*²³⁰ the Court of Appeal of Sri Lanka, “taking the example of the English case of *University of London Press Limited v. University Tutorial Press Limited*,²³¹ held that originality relates to expression of thought and that the expression need not be original nor

²²⁷ National Intellectual Property Office of Sri Lanka <<http://www.nipo.gov.lk/copy.htm>> accessed 1 May 2013.

²²⁸ Code of Intellectual Property Act No. 52 of 1979 (as amended by Act No. 30 of 1980, No. 2 of 1983, No. 17 of 1990, No. 13 of 1997 and No. 40 of 2000) more detail can be found from World Intellectual Property Organisation website- <<http://www.wipo.int/wipolex/en/details.jsp?id=2848>> accessed 29 April 2013.

²²⁹ Abeyesekere, ‘Copyright law and practice in Sri Lanka’ at 31.

²³⁰ (1986) 1NLR 620.

²³¹ [1916] 2 ChD 601.

in a novel form. The only condition is that the work must not be copied from another work and it must originate from the author”.²³² Therefore, there is no legal obstacle to following the English law.

Although the US admits a low level of creativity for the purpose of originality under copyright law,²³³ in Sri Lankan law, this element of creativity is not at all essential for a work to be original. Therefore, “it is possible that works such as databases are protected under the Sri Lankan Code, even when the component of creativity is lacking”.²³⁴ According to Section 7 (1) (b) of the IP Act of 36/2003/SL, both a collection of works and a collection of data on its own (*database*), whether in machine readable or other form, can be regarded as original by reason of the selection, co-ordination or arrangement of their contents. This shows that database protection depends on the formation of a database which is reflected in the selection, arrangement or co-ordination of the database content. As proposed in this thesis throughout, the purpose of digital databases is to enhance the value and/or usefulness of data.

²³² Abeyesekere, *supra* n.229, at 31.

²³³ L Longdin, PH Lim, ‘Copyright in high technology and haute cuisine: distinguishing inspiration and infringement’ (2013) 35/2 EIPR 74 at 75; *Feist Publications Inc v Rural Telephone Service Co* 499 US 340 (1991) at 349; Tessensohn, ‘The Devil’s In The Details’ at 443.

²³⁴ Abeyesekere, *supra* n.229, at 32.

2.5.5. Compilation

Databases receive protection as a work under the IP Act of 36/2003/SL. Collections of works and collections of mere data are regarded as databases in Sri Lanka,²³⁵ even though the IP Act of 36/2003/SL does not provide a comprehensive definition for selection or arrangement, “compilation implies elements of selection or arrangement or both”.²³⁶ Databases in Sri Lanka achieve originality by reason of the selection, co-ordination or arrangement of contents of databases.²³⁷ This means that the process or way of compilation gives originality to a database whereas the selection, co-ordination or arrangement of database content should attain originality in order to meet copyright protection.

The Act does not provide for a definition of the word ‘co-ordination’. It can be argued that this word has a broad meaning when compared to ‘selection’ and ‘arrangement’. The Oxford English Dictionary gives the meaning of this word as bringing “the different elements of (a complex activity or organization) into a harmonious or efficient relationship”.²³⁸ The co-ordination or process of co-ordination in digital databases may consist of “acquiring or selecting a target data, integrating and checking the data, data cleaning, pre-processing, and

²³⁵ IP Act of 36/2003/SL, s 7 (1) (b).

²³⁶ S Chalton, ‘The Effect of the E.C. Database Directive on United Kingdom Copyright Law in Relation to Databases: A Comparison of Features’ (1997) 19 EIPR 278 at 278-279.

²³⁷ IP Act of 36/2003/SL, s 7 (1) (b).

²³⁸ Oxford Dictionaries Online <<http://oxforddictionaries.com>> accessed 7 March 2011.

transformation, and result interpretation and visualization”.²³⁹ This process can be carried out by a human being and a computer program in a digital database. Initially the basics of a database, basic selections, arrangements and co-ordination, are done by humans. At this stage, computer programs are used as a tool. Subsequently, after the database is set up, the process is carried out by human involvement and a computer program. This process directly affects the end result of the database. In this regard, the involvement of a computer program is high in digital databases as it selects, arranges and processes the data in a database, thus creating an efficient relationship. Computer programs play a co-ordinating role in digital databases and, because of this, protection of computer programs constitutes a way of protecting digital databases in Sri Lanka.

The proposed system would adopt a comprehensive interpretation of the existing wording of Section 7 (1) (b) of the IP Act of 36/2003/SL. This interpretation should cover all possible aspects of digital databases in Sri Lanka. This should especially draw attention to the component of the contribution of a computer program which is part of the process of co-ordination or compilation.

²³⁹ Goebel, L Gruenwald, 'A Survey of Data Mining and Knowledge Discovery Software Tools' at 21; Fayyad *et al.*, 'From data mining to knowledge discovery in databases' at 39; See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

2.5.6. Computer programs

As stated in Section 6(1)(a) of the IP Act of 36/2003/SL, a computer program will be protected as literary, artistic or scientific works. Computer programs themselves obtain copyright protection as literary works. This Act does not provide a definition for 'literary work'. However, the UK CDPA 1988 does this in Section 3(1)(a), by stating that literary works mean a table or a compilation. In certain circumstances, it appears that, under the CDPA 1988, copyright may subsist in object code either as a literary work or as a translation of a literary work.²⁴⁰ The legality of the electronic formation of this object code has been discussed in UK cases. In *Computer Edge Pty. Ltd. v. Apple Computer Inc*²⁴¹ it was held that, "electronic formation of object code is no longer a subject matter for copyright law".²⁴² The question is whether these ideas should be applied to the Sri Lankan situation. Since Sri Lanka (then Ceylon) was a colony of the United Kingdom, English law has become a part of the common law of the country. Therefore English law can be applied to address a void in the existing law.²⁴³ It can be observed that there has been a long sequence of judgments which reflect the tendency to follow UK Law. As the implementation of IP Act of 36/2003/SL is new, there has not yet been a court decision in Sri Lanka to test it.

²⁴⁰ CDPA 1988, s 3 (1) (b).

²⁴¹ [1986] FSR 537.

²⁴² Abeyesekere, 'Copyright law and practice in Sri Lanka' at 30.

²⁴³ LJM Cooray, 'Common Law in England and Sri Lanka' (1975) 24/3 ICLQ 553 (Internet) <<http://journals.cambridge.org/action/displayFulltext?type=1&fid=1501444&jid=ILQ&volumeId=24&issueId=03&aid=1501440>> accessed 14 March 2011.

Computer programs are vital to digital databases and, therefore, digital databases deserve copyright protection. This right cannot be challenged just because the computer program and object codes are not defined by the IP Act of 36/2003/SL. If the computer program in a digital database attracts computer protection, protection right goes to the author of the database. Section 9(3) of the CDPA 1988 provides that, in the case of a literary, dramatic, musical or artistic work which is computer generated the author shall be taken to be the person by whom the arrangements necessary for the creation of the work are undertaken. The arguments behind these computer-generated works have already been discussed above.²⁴⁴

2.5.7. Authorship

The IP Act of 36/2003/SL provides a meaning for the term 'author'. In its interpretation clause in Section 5, it states that the physical person who has created the work is the author. Although the Sri Lankan Code of Intellectual Property Act 1979 states that the author who created the work is the owner of the economic and moral rights,²⁴⁵ the IP Act of 36/2003/SL provides a comprehensive definition and separation regarding authorship of economic and moral rights which directly and indirectly reflects the investment in databases.

Subject to contractual and labour law terms, the author who creates the work enjoys the moral and economic rights which attach to it. As stated in Section 10(1) of the IP Act of 36/2003/SL, the author of a work has moral rights, independently of his economic rights and even where he is no longer the owner

²⁴⁴ See this Chapter at 2.5.1. Computer-generated works underlying the database.

²⁴⁵ IP Act of 36/2003/SL, ss 10, 11.

of those economic rights. Section 14(1) states that “the author who created the work is the original owner of the economic rights”.

These two prerogatives, economic and moral rights, lie with the naturalist justification of copyright protection and reflect the reward argument and personality rights argument respectively.²⁴⁶ As argued by Derclaye, where investment in databases is concerned, “the personality rights part of the argument is irrelevant since the protection is concerned only with investment, not with the structure of the database in which originality can subsist and reflect the personality of the author”.²⁴⁷ In contrast, this thesis argues that the structure of a database is vital to the protection of databases and reflects the personality as well as investment of the author. Mere data or mere structures do not make up a database. Structure enhances the meaning of data in a certain way which may be the purpose or one of the purposes of the particular digital database. Hence, the role of the structure in database creation is vital. The structure is a result of the author’s intellectual capacity and the work of a computer program. It has already been argued that the computer program in digital databases is no longer a separate part of digital databases. Rights of the author, whether economic or moral, should be protected.

The role of the computer program in digital databases reflects the concept of collective work which attracts the economic rights argument under the Sri Lankan law. Section 14(3) in the IP Act of 36/2003/SL states that in respect of a collective work, the physical person or legal entity under whose initiative and

²⁴⁶ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 11-12.

²⁴⁷ Derclaye, *ibid.*, 12.

direction the work has been created will be the original owner of the economic rights. The owner means the author of the digital database and the author or owner of the particular computer program which structures the data in the database.

Furthermore, Section 14(4) removes the conundrum of a contract of service and a contract for services in relation to the circumstances of the particular digital database. As noted above, the computer program may be a result of recruiting a programmer or contract for services of a programmer. Section 14(4) states that:

“[I]n respect of a work created by an author employed by a physical person or legal entity in the course of his employment, the original owner of the economic rights shall, unless provided otherwise by way of a contract, be the employer. If the work is created pursuant to a commission, the original owner of economic rights shall be, unless otherwise provided in a contract, the person who commissioned the work”.

It is important to bear in mind that all these sections relate directly to the work and not the databases. It has already been discussed that a database attracts copyright protection as it is considered a copyrighted work.²⁴⁸ This argument creates the need to expand the meaning of databases in Sri Lanka. This is one of the main purposes of this thesis and it suggests that this expansion be created as a separate protection regime under Sri Lankan law.

Under Sri Lankan law, computer-generated works and computer-assisted works are not defined. Computer-generated work, where there is no human author of the work, was introduced into UK law by Section 178 of the CDPA 1988. This makes a distinction between computer-generated and computer-assisted work.

²⁴⁸ IP Act of 36/2003/SL, s 7 (1) (b).

In Section 178 of the CDPA 1988, the author is taken to be the person who has undertaken the arrangements necessary for the creation of the work.²⁴⁹ The author of digital databases makes necessary arrangements for the creation of the work; he selects the structure of the database and particular computer program to fulfil the purpose of database. Where the operator has some role in the formulation of the output beyond the supply of data, the work is more likely to be solely computer-assisted. Therefore, only in his scenario, the role of the computer program in digital database is more likely to be used as a tool. The particular program is written for the particular purpose of the database; therefore it does not exist independently of its operation within the database. Due to this, there is no point in determining the computer program as a separate tool of the database. Furthermore, both computer-generated works and computer-assisted works cannot be used or interpreted in Sri Lanka as the IP Act of 36/2003 is silent in this regard. This thesis suggests amending the position of databases in Sri Lanka by considering the difference between computer-generated works and computer-assisted works. Furthermore, this difference should be taken into account in the digital formation of databases in Sri Lanka.

²⁴⁹ CDPA 1988, ss 9 (3), 178.

2.6. Concluding comments

In this Chapter, the concept of copyright was employed to evaluate the protection of digital databases in Sri Lanka. This task was started with a discussion on the history of copyright as this background information helped to clarify the objectives of copyright protection, i.e. protection of investment, and their development through history. Copyright operates as a right against unauthorised reproduction of creations and one of the purposes behind this has been the protection of the investment of the author - protection of investment attracts future investment.²⁵⁰ This Chapter outlined the arguments with this in mind.

The manner in which data is obtained or achieved in databases is vital in relation to the investment in databases. Data which has been discovered rather than been created does not come under the meaning of investment in databases. Therefore, databases which consist of data that has been discovered do not qualify for legal protection. The rationale behind this is that creativity is more powerful when compared to the mere discovery of work. However, it can be observed that this argument makes for a genre of databases which do not obtain protection under copyright law. This further creates the necessity for a separate mechanism for the protection of databases, as per the main object of this thesis, because such databases do still require protection of their investment.

Investment in a database starts with the compilation process. The nature of literary work is the important element here as not every compilation attracts

²⁵⁰ See Chapter 1 at 1.6. The role of investment in database protection.

copyright protection. Any form which is a literary work and which has been compiled or is part of a compilation constitutes a compilation. Compilations of sound recordings, films and other material of a non-literary nature may be excluded while the digital formation of these materials may be considered as digital compilations. This means that the digital database of non-literary material might be a digital compilation for the purpose of attracting the copyright protection. On this point, copyright protection depends on the digital nature of the database rather than the whole structure of the database which includes the compilation of sound recordings, films and other material of a non-literary nature. Overall, this shows that the digital nature of databases is more likely to be protected, compared to non-digital databases.

Copyright protection in works begins with their originality or creativity.²⁵¹ A work must not be a pre-existing work if it is to meet the requirements of originality.²⁵² This is the basis of originality. However, this basic element brings uncertainty to the protection of databases under copyright law. The reason behind this is that, inherently, a database is a production of previous creations or an enhancement of previous creations, and a database is a result of different previous creations or works. Therefore, databases do not necessarily meet the requirements of this element of copyright. This shows that database protection depends on its own legal protection rather than other concepts in intellectual property law such as copyright. The *sui generis* right protection might be the best solution to be used for the protection of Sri Lankan digital databases.

²⁵¹ In the UK, CDPA 1988, s 1(1) (a); In Sri Lanka, IP Act of 36/2003/SL, s 6(1).

²⁵² *Ladbroke (Football) Ltd v William Hill (Football) Ltd* [1964] 1WLR 273.

This argument is applicable to the originality of computer programs. Protection of copyright in digital databases lies with the originality of computer programs which administrate the digital databases. However, those computer programs co-exist with pre-existing work. In *Apple Computer Inc. & Another v Computer Edge Pty Ltd & Suss*²⁵³ Lockhart J stated that “[a] program is a concise set of instructions that directs the computer to do the tasks required of it step by step and to produce the desired result”.²⁵⁴ One or more of these instructions could come from a pre-existing work or extension of a pre-existing work. Therefore, again, copyright protection of computer programs is in danger. Copyright protection in digital databases is problematic and there is a need for a bundle of protection rights/mechanisms because when one right/mechanism fails then another may be implemented successfully.

Davison suggests that originality is a difficult point for copyright protection²⁵⁵ due to the meaning of originality or intellectual creativity which differs according to the relevant legal standard in a particular jurisdiction, and the way in which that particular standard is applied in individual cases.²⁵⁶ Originality as an element of copyright protection then creates uncertainty over the protection of digital databases.

This Chapter demonstrates the complexity of authorship of digital databases. Computer programs in digital databases automatically organise the data to

²⁵³ [1984] FSR 481.

²⁵⁴ *Apple Computer Inc. & Another v Computer Edge Pty Ltd & Suss* [1984] FSR 481 (per Lockhart J) cited in Carr, R Arnold, *Computer software: Legal protection in the United Kingdom* 1.

²⁵⁵ Davison, *The Legal Protection of Databases* 13.

²⁵⁶ Davison, *ibid.*

reach the desired outcome of the databases. At this level, the role of the human author is invisible. However, choosing the contents of the database would be done by a human author or computer program. Further, human involvement can be observed in the adding, removing and updating of data content. This creates two claims to authorship of digital databases: humans and computer programs. As this thesis discussed above,²⁵⁷ giving authorship to a computer program is meaningless. To overcome this problem, this thesis suggests considering the author of digital databases as the human author rather than the computer program. A simple reason behind this is that the human author is the one who has taken the decision on the particular computer program in the digital database. If the protection mechanism does not deviate from copyright protection, there is no need to limited with these complex issues as it can be protected under its own mechanism. To overcome the complexities of protection of Sri Lankan digital databases, it is important to set up a system that considers the actual characteristics of databases such as the *sui generis* rights.

Although the Sri Lankan IP Act of 36/2003 provides the protection for databases under copyright law, it does not provide a clear definition of what constitutes a database and because of this, like many other legal systems,²⁵⁸ Sri Lanka still experiences uncertainties with the definition of databases. Any type of protection under any legal concept starts from the definition of that concept. The

²⁵⁷ See this Chapter at 2.5. Authorship of the underlying computer program and 2.5.7. Authorship.

²⁵⁸ See Chapter 1 at 1.1.3. Definition of a database; In the EU, Council Directive 96/9 EC (OJ L 077/20), art. 1; In the UK, Council Directive 96/9 EC (OJ L 077/20), implemented in the UK by the Copyright and Rights in Databases Regulations 1997, SI1997/3032, by way of a 'database right'; In the US, a database is a 'compilation' which is defined in the Copyright Act of 1976. Further definition of databases can be found in two separate situations such as before *Feist* (*Feist Publications v Rural Telephone Service Co-* 499 US 340 (1991)) and after *Feist*; Davison, *The Legal Protection of Databases* 54; Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 54.

definition reflects the background of its protection. Working without a proper definition may reduce the protection of databases as it makes for uncertainty and will bring more complexities to database protection. This thesis suggests setting up a new legal regime with a comprehensive definition for digital databases in Sri Lanka. These reforms should come with the development needs of the country in mind.

In this Chapter, this thesis discussed the availability of copyright protection over digital databases in Sri Lanka. Traditionally²⁵⁹ copyright has been employed to protect databases as seen in the findings of this Chapter. With this in mind, the next Chapter will consider the patentability of databases before discussing contractual protection, unfair competition and misappropriation, and the *sui generis* right protection.

²⁵⁹ Derclaye, *ibid.*, 1.

CHAPTER 3

PATENT PROTECTION OF DIGITAL DATABASES

3.1. Introduction

This Chapter assesses the possibilities of patent protection for computer programs and how patent protection protects investment in computer programs in digital databases, with the added aim of explaining how to attract investment to the field of digital databases. The conclusion will suggest that there should only be patent protection for the computer programs in digital databases. This new approach depends on the function of the enhancement of value and/or usefulness of data through processes such as KDD which has been identified by the thesis.

The previous Chapter presented arguments in order to establish the availability of copyright protection for digital databases and the impact of this upon investment. Copyright is a right protecting against unauthorised reproduction of copyrighted works. It is intended to protect the investment of the author. Copyright law in Sri Lanka protects databases as 'compilations'.¹ In the UK, before the implementation of the EU's Database Directive,² 'compilation' was used as the method for identifying databases.³ However, as discussed in the

¹ IP Act of 36/2003/SL, s 7 (1) (b).

² Council Directive 96/9 EC (OJ L 077/20).

³ Council Directive 96/9 EC (OJ L 077/20), art. 3 (1), implemented in the UK by the Copyright and Rights in Databases Regulations 1997, SI1997/3032.

previous Chapter, not every compilation attracts copyright protection.⁴ This situation is different for digital compilations.⁵

The computer program through its digital functions enhances the value and/or usefulness of data contained in a database. This process is known as KDD⁶ which needs to be identified in order to provide a protection mechanism; as this is a core function of digital databases it needs strong protection in order to attract investors to the field.⁷

Computer programs in digital databases consist of co-existing works from pre-existing⁸ sources or extensions of pre-existing sources.⁹ Therefore, the originality of computer programs in digital databases can be a problematic issue in terms of copyright protection.¹⁰ This situation is similar to the copyright requirement for an 'author' for automated computer programs in digital databases.¹¹ Unlike copyright protection, patent protection provides ways of overcoming these problems with computer programs in digital databases.

⁴ Davison, *The Legal Protection of Databases* 12; CDPA 1988, ss 5A (2), 5B (5) and 8(2); See Chapter 2 at 2.3. Tables, Compilations and databases under Copyright Law and 2.6. Concluding comments.

⁵ Davison, *ibid.*, 13.

⁶ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

⁷ See Chapter 1 at 1.6.2. Link between protection and investment.

⁸ Bouganim, 'The Legal Protection of Databases from Copyright to Dataright' at 62.

⁹ *Interlego AG v Yyco International Inc.*, [1989] AC 217 at 256-266 (per Oliver LJ); See Chapter 2 at 2.4.1. Originality of computer programs in digital databases.

¹⁰ See Chapter 2 at 2.4.1. *ibid.*

¹¹ See Chapter 2 at 2.5. Authorship of the underlying computer program.

3.1.1. US, EU and UK approaches

In this Chapter, a discussion will take place as to whether computer programs in digital databases should be awarded patent protection, as opposed to the copyright protection which is common in many jurisdictions such as the EU,¹² the UK,¹³ the US¹⁴ and Sri Lanka.¹⁵ The merits of the two inherent features of computer programs, data and structure as discussed previously, need the relatively stronger protection afforded by patents rather than the, arguably,¹⁶ weaker copyright protection¹⁷ that is commonly given to literary works.¹⁸ The reasons for this are that patents give much stronger intellectual property rights as well as clearly conveying the sense of economic value inherently attached to the subject matter. Copyright protects the expressions of idea, but the patent protects the mechanical version of the idea or idea itself. Arguably, in the given context, patent protection as opposed to copyright protection awarded to computer programs in digital databases can attract more and more investment which is an added advantage in a developing country scenario.¹⁹ The most

¹² Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs (OJ L 122, 17/05/1991 P 0042 - 0046), art. 1.

¹³ CIPA 1988, s 3 (1) (b).

¹⁴ Digital Law Online/University of Utah, Final Report of the National Commission on New Technological Uses of Copyrighted Works (CONTU)(July 31, 1978) <<http://digital-law-online.info/CONTU/>> accessed 8 June 2013.

¹⁵ IP Act of 36/2003/SL, s 6 (1) (b).

¹⁶ Her Majesty's Stationery Office, The Whitford Committee, *Copyright- Copyright and Design Law* (Cmnd 6732, 1977); D Bainbridge, *Software Copyright Law* (4th edn, Butterworths 1999) 40; See *inter alia* COM (88) 172 final.

¹⁷ *SAS Institute Inc. v World Programming Limited* [2013] EWHC Ch 69 at para 15.

¹⁸ Commission of the European Communities, 'Report on the implementation and Effects of Directive 91/250/EEC on The Legal Protection of Computer Programs' COM (2000) 199 final, at 6; D Bainbridge, *supra* n.16, ch 2, 40ff; See *inter alia* COM (88) 172 final.

¹⁹ Imam, 'How Patent Protection Helps Developing Countries' at 389.

salient features of a computer program in a digital database are its functions and mechanism which justifies patent protection being afforded to them.

This Chapter will make this argument by discussing the individual experiences of three different jurisdictions: the US, the EU and the UK with a view to defining an appropriate legal framework for Sri Lanka that could provide an acceptable level of protection for computer programs in digital databases, which could also be contributed to attract further investment to the field of digital databases.

Although UK law does not interpret the term ‘invention’, Section 1(2) of the Patents Act 1977 provides a non-exhaustive list that excludes ‘a program for computers’.²⁰ The said section states that computer programs are not patentable “as such”. The phrase “as such”, however, opens an avenue for a discussion of patentability of computer programs.²¹ The European Patent Convention 2000 (EPC 2000)²² holds a very similar position.²³ In US law, computer programs are not explicitly mentioned. However, this situation has been slightly modified by the case law in view of ‘patent eligible subject matter’. The promotion of “the progress of science and the useful arts”²⁴ as given in the US Constitution, provides possibilities for considering patent protection of computer programs.

²⁰ *Merrill Lynch’s Application* [1988] RPC 1, [1989] RPC 561; *Gale’s Application* [1991] RPC 305.

²¹ Patents Act 1977/UK, s 1(2); See this Chapter at 3.7. “As such” exclusion.

²² Convention on the Grant of European Patents (European Patent Convention) of 5 October 1973 as revised by the Act revising in 17 December 1991 and in 29 November 2000 <<http://www.epo.org/index.html>> accessed 19 June 2013.

²³ EPC 2000, art. 52(2).

²⁴ The Constitution of the United States, Article 1, Section 8.

The thesis, by focusing on encouraging qualitative and quantitative investment, will argue that there should be the possibility of patent protection over those computer programs which are involved in the production of useful or valuable data in digital databases. However, the thesis will not compare the above mentioned chosen jurisdictions, but will analyse the salient features of the protection mechanisms in each jurisdiction and organize them into one unique and new mechanism.²⁵

3.2. Origin of the patent protection issue

Meaningful analysis and rational interpretations can create new knowledge from existing data.²⁶ This can be seen in the process of “[d]eveloping an understanding of the application of the goals of the data mining process, [a]cquiring or selecting a target data set, [i]ntegrating and checking the data set, [d]ata cleaning, pre-processing, transformation, model development, [r]esult interpretation and visualization, [r]esult testing and verification”.²⁷ Raw data in a database are converted into useful and utilisable knowledge by the computer programs in digital databases. This knowledge outcome of a digital database stems from an analysis of data patterns and discovery of knowledge which is generated by a computer program whose function it is to do this.²⁸ Data

²⁵ See this Chapter at 3.11. Concluding comments.

²⁶ WJ Frawley *et al.*, ‘Knowledge Discovery in Databases: An Overview’ (1992) 13/3 AIM 57 at 61.

²⁷ Goebel, L Gruenwald, ‘A Survey of Data Mining and Knowledge Discovery Software Tools’ at 21; Fayyad *et al.*, ‘From data mining to knowledge discovery in databases’ at 39.

²⁸ V Devedzic, ‘Knowledge Discovery and Data Mining in Databases’ (2002) FON - School of Business Administration, University of Belgrade, Yugoslavia (Internet) at 2 <http://pdf.aminer.org/000/261/294/knowledge_discovery_from_semi_structured_data_for_conceptual_organization.pdf> accessed 1 April 2013.

patterns and discovery of knowledge are the result of data mining and KDD.²⁹ These processes are done by computer programs in digital databases. It is very important to identify and understand the contribution of computer programs in digital databases in order to protect the investment in said computer programs. This vital contribution has still not been identified properly in terms of providing protection to the investment made in it. Conley *et al.*, note that:

“We still know very little about the principles to be applied to computerized databases. Feist itself, of course, involved the most primitive sort of paper database, a telephone book. In some of the other cases (e.g, Warren and the West cases), at least one of the competing works was in digital form. However, the courts treated even these works as if they were simply alternative versions of such familiar paper compilations as case reporters and directories. Thus, when we speculate about the legal fate of things like Internet databases accessed with powerful search engines, we should remember how little we actually know at this point”.³⁰

Digital databases consist of data content and computer programs. These two main components can be protected by two different intellectual property law concepts, namely, copyright and patents respectively.³¹ While the data is protected by copyright, the computer program which evaluates or manipulates the data in a database can be protected by patents³² or by copyright.³³

²⁹ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

³⁰ Conley *et al.*, ‘Database Protection in a Digital World’ at para 61.

³¹ BA Galler, *Software and Intellectual Property Protection* (Quorum Books 1995) 30.

³² In Japan- Software-related inventions are patentable. The Japan Patent Office. <http://www.jpo.go.jp/cgi/linke.cgi?url=/tetuzuki_e/t_tokkyo_e/1312-002_e.htm> accessed 18 December 2012;

In India - Patent Amendment Ordinance, s 3, 3(k) compare with an amendment Act in 2005. A Mathew, ‘Patent Protection for Computer Program - Analysis of the forms of IP Protections Available for Computer Programs and Justification for Patent Protection in the Indian Context’ [2008] AG (Internet) <www.altacit.com> accessed 18 December 2012;

In South Korea, “software is considered patentable and many patents directed towards computer programs have been issued. Computer programs can be patentable only if the

Traditionally, computer program protection has been based on copyright law.³⁴ However, this notion is still being questioned, most recently, on several points in relation to the Software Directive 2009/24/EC.³⁵ In the UK, in *SAS Institute Inc. v. World Programming Limited*, Arnold J referred multiple questions on the true interpretation of Article 1(2) to the CJEU. These can be summarised as follows: whether copyright in computer programs protected the copying of ‘Programming languages,’ or ‘Interfaces’ where this could be achieved without “decompiling the object code”; and, whether computer programs protected the copying of the ‘Functionality’ of the programs.³⁶

Programming languages, Interfaces and Functionality are important words in order to provide answers to these. In the US, computer programs are patentable if they are new and useful machines or processes.³⁷ However, in the UK computer programs “as such” are not patentable. The programming language ultimately provides an instruction or series of instructions and these

software is recorded on a storage medium (CD-ROM, disc, etc.) and the combination of software and hardware as a whole represents an improvement over the prior art, has a technical result and constitutes a complete technical solution”. The European Patent Office <<http://www.epo.org/searching/asian/korea/faq.html#faq-408>> accessed 18 December 2012; *Diamond v Chakrabarty* 447 US 303, 206 USPQ 193 (1980).

³³ In the US, under the definition in the Copyright Act, 17 USC § 101, computer programs are literary works; In the UK, CDPA 1988, s 3 (1)(b); In the EU, Council Directive 91/250/EEC (hereafter Council Directive 91/250 EC) of 14 May 1991 on the legal protection of computer programs Directive as amended by Directive 93/98/EEC (OJ L 290, 1993-11-24, P009-0013) (Council Directive 93/98/EEC of 29 October 1993 harmonizing the term of protection of copyright and certain related rights).

³⁴ In the EU- Council Directive 91/250 EC, art. 1; In the UK- CDPA 1988, s 3(1)(b); In the US- Final Report of the National Commission on New Technological Uses of Copyrighted Works (CONTU) (July 31, 1978); D Bainbridge, *Software Copyright Law* (4th edn, Butterworths 1999) 4-5.

³⁵ Council Directive 91/250 EC was formally replaced by Directive 2009/24/EC on May 25, 2009 (OJ L 111/16).

³⁶ *SAS Institute Inc. v World Programming Limited* [2013] EWHC Ch 69 at para 15.

³⁷ *In re Alappat* 33 F.3d 1526, 31 U.S.P.Q.2d (BNA) 1545 (Fed. Cir. 1994).

are considered to be results in a process. Therefore, the computer programming language is, arguably, not just mere text because it emphasises some kind of behaviour in hardware.³⁸ In the US, in *Bernard L. Bilski and Rand A. Warsaw v. David J. Kappos*³⁹ the court held that: “[a] claimed process is surely patent-eligible under § 101 if (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing”.⁴⁰ In the same way, a programming language is tied to a particular computer and other programs. It further transforms a particular computer into a special purpose computer. In the EU, the Software Directive 2009/24/EC⁴¹ states that, “the parts of the program which provide for logical and physical interconnection and interaction between elements of software and hardware are generally known as ‘interfaces’”.⁴² Samuelson *et al.*, note that:

“To enable a program to interact with other programs, a programmer must make sure that it sends and receives signals in the manner required by those programs. One of the critically important tasks of software development is designing this information flow to allow interoperation. Software developers refer to this as designing the program’s ‘interface’. Software interfaces are the information equivalents of the gear teeth, levers, pulleys, and belts that physical machines use to interoperate”.⁴³

³⁸ P Samuelson *et al.*, ‘A Manifesto Concerning the Legal Protection of Computer Programs’ (1994) 94/8 CLR 2308 at 2316 [hereafter Samuelson *et al.*, ‘A Manifesto Concerning the Legal Protection of Computer Programs’].

³⁹ 130 S.Ct. 3218 (2010).

⁴⁰ 130 S.Ct. 3218 (2010) at 3224.

⁴¹ Directive on the legal protection of computer programs 91/250/EEC, re-codified in 2009/24/EC (OJ L 111/16).

⁴² Preamble of Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs (Codified version) (OJ L 111/16).

⁴³ Samuelson *et al.*, ‘A Manifesto Concerning the Legal Protection of Computer Programs’ at 2321.

Therefore, an interface is an integral part of the process of the functioning of a computer program. The interface and components in both hardware and computer program must work together in order to carry out a meaningful function in a computer program.⁴⁴ If the process receives patent protection, interfaces would have to be protected under the patent as well. Copyright does not address these functions because it addresses the expressions of ideas.⁴⁵ Further, “copyright in computer programs does not protect interfaces [or functionality]”.⁴⁶ Patents, however, inherently protect the functionality. As recognised by the United States Copyright Office, “the functionality of a computer program in machine executable form might disqualify them from copyright protection”.⁴⁷ *In re Bradley*⁴⁸ held that a computer program’s data structure is patentable.⁴⁹

A digital database is an aggregate of information which is systematically or methodically arranged and stored in a computer system.⁵⁰ The basic structure of a digital database contains data and computer programs which manipulate such information in the particular digital database. The EU’s Database

⁴⁴ Bouganim, ‘The Legal Protection of Databases from Copyright to Dataright’ at 31.

⁴⁵ *In the US*, *Baker v Selden* 101 US 99 (1879); *in the UK*, *University of London Press v University Tutorial Press* [1916] 2Ch 601 and CDPA 1988, s 1(1); *in Sri Lanka*, IP Act of 36/2003/SL, ss 6, 7.

⁴⁶ *SAS Institute Inc. v World Programming Ltd.* [2013] EWHC Ch 69 at para 15 (per Arnold J).

⁴⁷ Samuelson *et al.*, ‘A Manifesto Concerning the Legal Protection of Computer Programs’ at 2348; This was based on the principles from the Supreme Court decisions in *White-Smith Music Publishing Co. v Apollo Co.* 209 US 1 (1908) and *Baker v Selden*, 101 US 99 (1879).

⁴⁸ 600 F.2d 807 (CCPA 1979).

⁴⁹ Cited in Samuelson *et al.*, ‘A Manifesto Concerning the Legal Protection of Computer Programs’ at 2347.

⁵⁰ Council Directive 96/9 EC (OJ L 077/20), art. 1(2); Copyright and Rights in Databases Regulations 1997, SI1997/3032, reg. 6; CDPA 1988, art. 3A.

Directive⁵¹ on the legal protection of database copyright, states that the database is a collection of works, data or other materials arranged in a systematic and methodical way and capable of being accessed by electronic or other means. These arrangements and accessible methods enhance the usefulness and/or value of information in databases. One of the most convenient and reliable accessible methods is provided by computer programs. Computer programs organise and make meaningful order of information, termed data mining.⁵² The task of the computer program in a digital database is something more than merely organising or collecting data.⁵³

It also transforms the data through its functions and this consists of instructions which are written in a specific language, to perform a specified task for a computer and a digital database. As copyright does not provide direct protection for functions or processes, it is important to consider other available protection mechanisms for the protection of computer programs in digital databases. Computer programs, as inventions, when claim the patent protection trigger the functions they performed. In relation to the US experience, Sumner states that:

“The Copyright Act defines a computer program essentially as a set of statements and instructions for operating a computer. That is precisely what is protected through copyright law: a set of statements and instructions that are used directly or indirectly to run a computer. Contrast that definition with the functions carried out by the computer; they are excluded from copyright protection both by the terms of the copyright statute and by the doctrine articulated in the case of *Baker v. Selden*⁵⁴. Likewise, a set of statements and

⁵¹ Council Directive 96/9 EC (OJ L 077/20).

⁵² Fayyad *et al.*, ‘From data mining to knowledge discovery in databases’ at 39.

⁵³ See Chapter 2 at 2.5.1. Computer-generated works underlying the database and 2.5.2. Computer-assisted works.

⁵⁴ 101 US 99 [1879].

instructions cannot be protected with a patent; only the functions carried out by the computer, or the programmed machine itself can be protected by patent”.⁵⁵

The distinction between the function and the programming language used by computer programs to operate the machine verify the applicability of either copyright or patent protection. A computer language is a behaviour which represents an act or series of acts.⁵⁶ An act or series of acts bring a process, which is an element of patentability.⁵⁷ In this regard, Sumner suggests defining the sequence of functions in order to give patent protection to computer programs. As he exemplifies:

“A computer has a little clock in it, and the clock generates cycles; between each of these cycles, something happens, and at least one of those instructions is carried out. When that occurs, one of the basic functions in the computer is carried out by the circuitry in the computer based on the instructions from the program. In a sense, then, a computer usually operates through combinations of its basic functions. This is the basis for claiming computer functions or programmed machines in software patents”.⁵⁸

Hence, the computer program in a digital database carries out its basic functions and these need to be addressed by the patent protection since they are not protected by copyright law.

Computer programs in digital databases are specifically written to perform the functions of the databases, i.e. to manipulate information for useful purposes.

⁵⁵ JP Sumner, ‘The Copyright/Patent Interface: Patent Protection for the Structure of Program Code’ (1989-1990) 30 JJ 107 at 111-112; 17 USC § 101 (1982).

⁵⁶ Samuelson *et al.*, ‘A Manifesto Concerning the Legal Protection of Computer Programs’ at 2316.

⁵⁷ *Expanded Metal Co. v Bradford*, 214 US 366 at 385-386; *Bernard L. Bilski and Rand A. Warsaw v David J. Kappos* 130 S.Ct. 3218 (2010); 35 USC § 101.

⁵⁸ JP Sumner, *supra* n.55, at 112; S Mason, ‘The Sources of Digital Evidence’ in S Mason (ed), *Electronic Evidence* (2nd edn, LexisNexis 2010) 4-5.

This process enhances the usefulness and/or value of existing information which creates new information depending on existing information. Therefore, the computer programs in digital databases, as they do not have an individual existence, are specific to a particular database.

To assess the patentability of computer programs in digital databases, the main focus will be given to the concept of “as such”⁵⁹ in the UK legal system and its divergence from other systems, such as by its additional technical features. The technical effects⁶⁰ of the computer program will be examined in relation to their function and role in the enhancement of data in digital databases. Having referred to this earlier case law, Decision - T 1173/97 and Decision-T 0935/97, Koo discusses these technical effects:

- “ • Programs for computers must be considered as patentable inventions when they have a technical character.
 - A technical character can be found in further technical effects deriving from the execution of the instructions given by a computer program. Such a further technical effect could have the necessary technical character where it causes the software to solve a technical problem.
 - The central question is what “*further technical effect*” can lead to this subject-matter being patentable. If a computer program product produces such a further technical effect when run on a computer, such a program product can produce such a further technical effect”⁶¹.

⁵⁹ Patents Act 1977/UK, s 1(2); EPC 2000, art. 52(3); Decision of Technical Boards of Appeal - T 1173/97 - 3.5.1 [1 July 1998] Application Number: 91107112.4, Publication Number: 0457112 IPC: G06F 11/14 [hereafter Decision - T 1173/97].

⁶⁰ D Koo, ‘Patent and copyright protection of computer programs’ [2002] IPQ 172 at 181[hereafter Koo, ‘Patent and copyright protection of computer programs’]; Computer program product/IBM (T1173/97); Computer program product II/IBM (T0935/97); Controlling pension benefits system/PBS PARTNERSHIP (T0931/95); Technical contribution-The Symbian judgment [2009] Bus LR 607 (especially paras 54–56); EPC 2000, rules 27 and 29.

⁶¹ Koo, ‘Patent and copyright protection of computer programs’ at 179.

3.3. The nature of a computer program and its relevance to the proposed system

It is important to clearly identify a definition for a computer program in order to examine the legal protection of digital databases. The main mechanical device in a computer system is termed 'hardware'.⁶² A computer program is a set of instructions⁶³ which directs hardware to carry out the programmed functions. Having referred to the definition of computer programs in *Apple Computer Inc. and Another v Computer Edge Pty. Ltd. and Suss*,⁶⁴ Lockhart J held that "[a] computer is an interconnected and sophisticated system comprising four parts,... input, processing, output and storage...A program is a concise series of instructions that directs the computer to do the tasks required of it step by step and to produce the desired result".⁶⁵ However, it is important to bear in mind that the UK law and the US law differently address the issue of protection of computer program. In the US law, Section 101 of the Copyright Act of 1976⁶⁶ states that a computer program is:

"[A] set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result. 'Directly' refers to a program in binary or machine code form, while 'indirectly' refers to a program in a high level language which must be compiled before it can instruct a computer".⁶⁷

⁶² *Apple Computer Inc. and Another v Computer Edge Pty. Ltd. and Suss* [1984] FSR 481 at 509.

⁶³ S Mason, 'The Sources of Digital Evidence' in S Mason (ed), *Electronic Evidence* (2nd edn, LexisNexis 2010) 4.

⁶⁴ [1984] FSR 481.

⁶⁵ *Apple Computer, ibid.*, at 509.

⁶⁶ An Act for the general revision of the Copyright Law, title 17 of the United States Code, and for other purposes, Pub. L. 94-553 (19 October 1976).

⁶⁷ K Moon, 'The nature of computer programs: tangible? Goods? Personal property? intellectual property?' (2009) 31/8 EIPR 396 at 397.

As far as copyright protection is concerned, the computer program is a literary work.⁶⁸ A computer program consists of instructions, which are machine readable. It cannot be 'read' by humans and can only function with the aid of a machine. The instructions of a computer program are useless without the functions of the machine which can interpret the particular computer language. These instructions in computer programs in digital databases are specially written for the purpose of the particular database.⁶⁹ The initial purpose of this machine readable language is to set up useful data patterns of the data content in digital databases.⁷⁰ Subsequently, these patterns are processed, for example, by acquiring or selecting a set of target data, integrating and checking them, and providing interpretation and visualization through KDD.⁷¹ This process is what ultimately enhances the value and/or usefulness of data content of digital databases.⁷²

As regards to UK law, in the *Aerotel*⁷³ case, the Court of Appeal gave two views, a narrow and a wide one, for the meaning of computer programs in order to provide an interpretation for such an Article. Jacob LJ stated that:

“A narrow view is that it means just the set of instructions as an abstract thing albeit they could be written down on a piece of paper. A wider view is that the term covers also the instructions on some form of media (floppy disk, CD or hard drive for instance) which

⁶⁸ In the US, 17 USC § 101; in the UK, CDPA 1988, s 3(1)(b).

⁶⁹ Pattison, 'The European Commission's Proposal on the Protection of Computer Databases' at 115.

⁷⁰ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

⁷¹ See Chapter 1 at 1.5. *ibid.*

⁷² See Chapter 1 at 1.5. *ibid.*

⁷³ *Aerotel v Telco; Macrossan's Application* [2007] RPC 7.

causes a computer to execute the program - a program which works".⁷⁴

The narrow view can easily fall under copyright because it is simply a literary work; the wider view can be found in the machine language. This thesis respects to the wider view as it opens an avenue for patent protection. Machine language itself requests a machine, in order to read it out. Machinery process is a function or combination of functions which can be protected by patents.

Prior to examining the patentability of a computer program, it is pertinent to identify the functionality of a computer program. Machines are patentable inventions. If computer program is a machine then it would be protected by patent. Computer programs are first written in a specific collection of computer instructions, including assembly language (source code) and, subsequently, converted into machine language (object code) which is machine readable. In an Australian case, *Apple Computer Inc. v. Computer Edge Pty. Ltd*, Lockhart J outlined that: "transformation from one to the other happens using the assembler program which is written in assembly or muster language (source code) and adapting it into machine readable language (object code)".⁷⁵

As noted in this case,⁷⁶ this language, the object code, consists of a series of bits, or binary digits, which shows the presence or absence of pulses of electric current.⁷⁷ This series combine with a skeleton which provides a particular logical

⁷⁴ *Aerotel*, *ibid.*, at 133.

⁷⁵ *Apple Computer Inc. v Computer Edge Pty. Ltd.* (1984) 2 IPRI, at 27 cited in J McKeough, 'Apple Computer Inc. v Computer Edge Pty Ltd' (1984) 7 UNSWLJ 161 at 166 (note).

⁷⁶ *Apple Computer Inc.*[1984] FSR 481.

⁷⁷ *Apple Computer Inc. Ibid.*, at 482.

order, known as the 'algorithm'.⁷⁸ It is then apparent that it should be executed by mechanical interventions. The series of bits is not a computer program without machine involvement. This shows that the computer program is a part of the machinery process and can only be employed using a machine, namely, the central processing unit (CPU).⁷⁹ Machines are patentable inventions when they meet the requirements of law.⁸⁰ The function of enhancing the usefulness and/or value of information in a digital database is a computer process. Therefore, there is a possibility of applying patent protection to computer programs in digital databases.⁸¹ The benefits of this examination are linked to the notion of the benefits of patent protection to developing countries such as Sri Lanka. Economic development⁸² in developing countries depends on investment and, therefore, providing protection to investments helps to attract further investment.⁸³

⁷⁸ "Algorithm means a finite set of well defined instruction to the computer for accomplishing a specific task". Carr, R Arnold, *Computer software: Legal protection in the United Kingdom* 2.

⁷⁹ Bouganim, 'The Legal Protection of Databases from Copyright to Dataright' at 31.

⁸⁰ EPC 2000, art. 52; IP Act of 36/2003/SL, s 63.

⁸¹ IP Act of 36/2003/SL, s 62(2) says that a patentable invention may be, or may relate to, a product or process.

⁸² A Sen, 'Development: which way now?' (1983) 93/372 EJ 745.

⁸³ See Chapter 1 at 1.6.2. Link between protection and investment.

3.4. Patents in the proposed system

The benefits of patent protection in developing countries and the benefits of patent protection of computer programs will drive the arguments in this section. Patents afford, more or less a definite right, showing who owns it, the registration details, and that the existence of the patent is advantageous to the community.⁸⁴ Yu states that:

“With the development of the world economy and the communication revolution, the scope of patent protection is not just limited in the field of pharmaceutical products. Today’s high technology products, such as computer software and hardware, and biotechnology are extraordinarily information intensive. The patent protection is essential to these products, because they are expensive to develop but easy to copy. For example, the digitized information can be copied with the touch of a button”.⁸⁵

Therefore, patent protection of digital inventions brings “much greater profits to developing countries, more specifically to attract further foreign investments”.⁸⁶ Lehman notes that, “[p]atent protection gives inventors the exclusive right to exploit their inventions. This exclusive right gives them the economic security and, thereby, the freedom to follow any path along which their human ingenuity

⁸⁴ Carr, R Arnold, *Computer software: Legal protection in the United Kingdom* 127.

⁸⁵ J Yu, ‘Can Developing Countries Benefit From Intellectual Property Protection’ (2002-2003) 10 TFLR 359 at 365.

⁸⁶ J Yu, *ibid.*, at 363; S Alikhan, *Socio-Economic Benefits of Intellectual Property Protection in Developing Countries* (No 454) (World Intellectual Property Organisation 2000) 9 [hereafter Alikhan, *Socio-Economic Benefits of Intellectual Property Protection in Developing Countries*]; “A country’s development depends on numerous factors, including economic growth. Some have suggested that protection for intellectual property (and patents, in particular) is a main pillar of modern economic policy and ‘a catalyst for development.’ Patent protection would enhance competitiveness in the world market and accelerate economic development for developing countries”. Imam, ‘How Patent Protection Helps Developing Countries’ at 380.

and imagination may lead them”.⁸⁷ This idea refers back to the quote by John Locke in Chapter 1⁸⁸ which stated that “every human being is the owner of his own person so he must have a property right on the fruit on his own labour”.⁸⁹ Computer programs and digital databases are a fruit of human labour which is the result of human ingenuity and imagination. Human labour, *inter alia*, is an investment in digital databases. There are other benefits, other than investment ones, afforded by patent protection:

“ (1) Incentive to the creators and inventors, inviting new, safe and effective products and technology, inducing these innovators to bring their technology to the market place;

(2) Creating advances which will contribute to the level of technology throughout the world and, in the process, gain revenues from others who would benefit from their use;

(3) The most important is providing a conducive environment for the transfer of new and high technology. Foreign investment is the only way to get ‘free’ access to the latest technology, to assimilate, adapt and ultimately localize the new technology, to induce the economic development of developing country, to raise its competitive capability and status in the world trade territory”.⁹⁰

Patents give rights and a monopoly⁹¹ for a specific duration, normally 20 years from the date of filing of the application.⁹² However, this monopoly will only be granted if the invention is new, has an inventive step, has an industrial and

⁸⁷ BA Lehman, *Introduction to Intellectual Property Right* (e-Books and Brochures, state Dept., IP) (Internet) ch2 - Support for Economic and Political Freedom <http://infopedia.usembassy.or.kr/ENG/f2_031102.html> accessed 20 February 2013.

⁸⁸ See Chapter 1 at 1.2.1. Using economics as an approach to the concept of ‘property’.

⁸⁹ CB Macpherson (ed), *John Locke: Second Treaties of Government* (Hackett Publishing 1980) 16.

⁹⁰ J Yu, ‘Can Developing Countries Benefit From Intellectual Property Protection’ (2002-2003) 10 TFLR 359 at 365.

⁹¹ *Aronson v Quick Point Pencil Co.*, 440 US 257 (1979); *Brulotte v Thys Co.*, 379 US 29 (1964) at 33.

⁹² EPC 2000, art. 63; Patents Act 1977/UK, s 25(1); 32 USC § 154(a)(2); IP Act 36/2003/SL, s 83.

useful application, and if it is disclosed with sufficient clarity.⁹³ A patent is granted for the disclosure of technical information; therefore, it is generally of a technical nature. These definitions show how much stronger patent protection is in comparison with other protection tools and, therefore, how much more useful and attractive it is to developing countries.⁹⁴

As mentioned earlier, “the patent system encourages research and development in technology by rewarding inventions with a monopoly. Patents, therefore, are the price that society pays to encourage inventors to invent and then share their inventions with the public”.⁹⁵ Patent protection of computer programs in digital databases, therefore, encourages the inventors to invent more sophisticated programs for digital databases and this helps to increase the level of the digital database market. Inventors therefore attract investors.

Computer programs are useful in wide range of modern industry. Therefore there is interdependency between computer programs and modern industrialism. Computer programs in digital databases needs to be complied with the requirement of industrial applicability in order to be patentable. The UK Patents Act 1977, EPC 2000 and the Sri Lankan IP Act of 2003⁹⁶ mention that an invention can be patentable if it is capable of ‘industrial application’, i.e., if it can be made or used in any kind of industry the invention is then capable of

⁹³ Patents Act 1977/UK, ss 1 (1), 1 (2); EPC 2000, art. 52; IP Act of 36/2003/SL, ss 62-66.

⁹⁴ AM Imam, ‘How does patent protection help developing countries?’ (2006) 3 IRIPCL 245 at 254; Alikhan, *Socio-Economic Benefits of Intellectual Property Protection in Developing Countries*.

⁹⁵ RA Hulse, ‘Patentability of Computer Software After *State Street Bank & Trust Co. v Signature Financial Group, Inc.*: Evisceration of The Subject Matter Requirement’ (1999) 33 UCCLR 491 at 494.

⁹⁶ Patents Act 1977/UK, s 1(1); EPC 2000, art. 52(1); IP Act of 36/2003/SL, s 63.

industrial application.⁹⁷ In *Human Genome Sciences Inc v Eli Lilly and Company*, Neuberger LJ stated that, “the disclosure of the Patent may represent a valid basis for a possible industrial application”.⁹⁸ Further, in *Research In Motion UK Ltd. v Inpro Licensing SARL*, Pumfrey J held that:

“I am anxious that these exclusions are not given too wide a scope. All modern industry depends upon programmed computers, and one must be astute not to defeat patents on the ground that the subject matter is excluded under Article 52 [EPC 2000] unless the invention lies in excluded subject matter as such”.⁹⁹

Sections 1 and 4 of the UK Patents Act 1977 and Article 57 of the EPC 2000, establish that inventions need only be capable or susceptible to industrial application. This means that it is enough to show that the invention has the potential to be used or made in any kind of industry rather than the requirement of demonstration of actual use.¹⁰⁰ Digital databases have industrial application and this potentiality is high with the function of the computer program. In other words, industrial applicability of databases is useful with the functions of a computer program. This will be discussed further in 3.6.3. of this Chapter.

The patent will be granted if the invention, *inter alia*, has been disclosed with a description and definition which should be of sufficient clarity. This is more complicated in the field of computer programs as it is a serious mathematical and technological component. The description and definition provide the source of all the information of the invention. Before the invention is put into practice it

⁹⁷ Samuelson *et al.*, ‘A Manifesto Concerning the Legal Protection of Computer Programs’ at 2321; *Chiron Corporation and Others v Murex Diagnostics Ltd and Others* [1996] RPC 535 at 607- 608.

⁹⁸ [2011] UKSC 51 at para 126; *Eli Lilly and Company v Human Genome Sciences, Inc* [2012] EWCA Civ 1185.

⁹⁹ [2006] EWHC 70 (Pat) at para187.

¹⁰⁰ *Human Genome Sciences Inc v Eli Lilly and Company* [2011] UKSC 51.

is necessary for both the formula and the starting materials to be clearly disclosed.¹⁰¹ However, “[t]he disclosure of one way of performing the invention is only sufficient within the meaning of Article 83 EPC 2000, if it allows the person skilled in the art to perform the invention in the whole range”.¹⁰²

Digital databases should be disclosed with the combination of a computer program in order to apply the proposed patent protection to computer programs. The nature of the combination of the computer program should be disclosed with sufficient clarity. This should further reflect the inherent existence or interdependent nature of computer programs in digital databases. The disclosure of sufficient clarity on this combination would confirm the patentability of the computer program in the digital database in line with the proposed mechanism.

3.5. Ways that patents add value to databases

Enhancing the value or usefulness of data content in a database is a process which is done by the computer programs in digital databases. Therefore, it is essential to find out the contribution of computer programs to digital databases in order to provide protection for digital databases. The proposed system will apply patent protection to computer programs in digital databases. Digital databases are the building blocks of the modern developing process.¹⁰³ This is

¹⁰¹ *Merck/Starting Compounds v (Opposition by Sankyo)*, T51/87 [1991] EPOR 329.

¹⁰² *Exxon/Fuel Oils* T409/91, Technical Boards of Appeal 3.3.1, 18 March 1993, [1994] EPOR 149 at 156.

¹⁰³ See Chapter 1 generally; KE Maskus, ‘Lessons From Studying the International Economics of Intellectual Property Rights’ (2000) 53 VLR 2219 at 2221-2222; JR Homere, ‘Intellectual Property Rights Can Help Stimulate the Economic Development of Least Developed Countries’ (2003-2004) 27 CJLA 277 at 277.

more highlighted in information technology economies.¹⁰⁴ Patent protection provides a strong protection for computer programs in digital databases. Strong intellectual protection protects investment and consequently attracts investment.¹⁰⁵ As a strong intellectual protection, patent helps to attract investment to developing countries.¹⁰⁶

The ways that patents add value to databases can be examined through the different types of databases and the functions of the computer programs in each of these. A digital telephone directory is a digital database. The main function of the computer program in this database is to manipulate the data i.e. telephone numbers, names, addresses and other data such as information in advertisements. These computer programs also provide search engines for the digital databases. The manipulation is a broad function in the digital database and consists of data mining and KDD. As it is a knowledge discovery process, the manipulation of data in the digital database consists of the functions of compiling, categorising, and organising the data according to various formations. The end result of this process brings ease of data use. This ease is useful and adds new value to the data content in the digital database. Finally, this process enhances the usefulness and value of information, which is the main purpose of setting up a digital database.

¹⁰⁴ Davison, *The Legal Protection of Databases* 1; YM Braunstein, 'Economic Impact of Database Protection in Developing Countries and Countries in Transition' (WIPO, standing committee on copyright and related rights Seventh Session Geneva, May 13 to 17, 2002) at 4; Tessensohn, 'The Devil's in the Details' at 453; V Bange, J Sumpster, 'Databases: treasure or curse?' (2009) 4/9 WCRR 34; Pattison, 'The European Commission's Proposal on the Protection of Computer Databases' at 113; CR McManis, 'Database Protection in the Digital Information Age' (2001-2002) 7 RWULR 7 at 21.

¹⁰⁵ See Chapter 1 at 1.6.2. Link between protection and investment.

¹⁰⁶ AM Imam, 'How does patent protection help developing countries?' (2006) 3 IRIPCL 245 at 254; Alikhan, *Socio-Economic Benefits of Intellectual Property Protection in Developing Countries*.

As it will be outlined this Chapter throughout, the thesis is aiming at gaining benefits of patent protection, such as attracting investors and inventors to Sri Lanka. Providing patent protection to a computer program in a digital database means providing the benefits of patent protection to the process of compiling, categorising and organising of data. However, compilation is a controversial term for the protection of patents as it is protected under the meaning of copyright law. Compilations are protected under the copyright law. Since the databases are considered as a type of compilation, they are also protected under the same law. Computer programs contribute to compile the data in digital databases. Since the said contribution involves a functionality and a mechanism, this thesis suggests that the computer programs could also be given a patent protection. Accordingly it can be argued that compilation, which contains the contribution of the computer programs could also be given a patent protection. The distinction between these two means of protection is that copyright considers the whole database as a compilation while patents consider compilation as one of the functions of the computer program that the database needs to fulfil. KDD along with data mining represents this compilation.¹⁰⁷ However, this proposed system does not dispense with copyright protection altogether as this system will be a bundle of protection mechanisms.

Patent protection can increase the level of demand for a service¹⁰⁸ in the digital database field because it means that competitors are unable to use the patent

¹⁰⁷ Goebel, L Gruenwald, 'A Survey of Data Mining and Knowledge Discovery Software Tools' at 20; Fayyad *et al.*, 'From data mining to knowledge discovery in databases' at 39; Piatetsky-Shapiro *et al.*, 'An Overview of Issues in Developing Industrial Data Mining and Knowledge Discovery Applications' at 90.

¹⁰⁸ World Intellectual Property Organization, 'Ways in Which Patents can Help Your E-Commerce Business' (Internet) <http://www.wipo.int/sme/en/e_commerce/pat_help.htm>

themselves. Patents can also be a source of royalties in licensing transactions,¹⁰⁹ thus adding revenues to the bottom line of the database market.¹¹⁰ Such royalties can be in a lump sum, in installments, based on units of product sold, or based on a percentage of revenues from sales of a product.¹¹¹ This patent adds value to a digital database which creates a source of revenue for the investor and can increase the value of the investment, in turn, attracting more investors.

A patent creates a license for the invention; Mazzoleni and Nelson state that, “companies need to have an exclusive license on an embryonic invention in order to try to develop and commercialize it”.¹¹² If a patent enables the ability to grant licences to a potential client i.e. database owner, he would be able to use it to gain financial benefits. At the same time, these licences can be used for the development of parallel digital databases because they can use the licensed inventions for improving their databases and/or for providing better services to their database users. These can also be seen as investment benefits in digital databases.

accessed 8 December 2011 [hereafter WIPO, ‘Ways in Which Patents can Help Your E-Commerce Business’].

¹⁰⁹ P Tang *et al.*, ‘Patent protection of computer programmes’ (European Commission, Directorate-General Enterprise, Final Report Contract no. INNO-99-04 2001) at 4-5 <<http://eupat.ffii.org/papri/tangadpa00/tangadpa00.pdf>> accessed 5 April 2013.

¹¹⁰ R Hart *et al.*, ‘The Economic Impact of Patentability of Computer Programs’ [October 2000] IPI (Internet) 3 <http://ec.europa.eu/internal_market/indprop/docs/comp/study_en.pdf> accessed 21 February 2013 [hereafter Hart *et al.*, ‘The Economic Impact of Patentability of Computer Programs’].

¹¹¹ WIPO, *supra* n.108.

¹¹² R Mazzoleni, RR Nelson, ‘The benefits and costs of strong patent protection: a contribution to the current debate’ (1998) 27 ESBVRP 273 at 281.

This licensing process can be used to further enhance the technological features of the particular digital database. Licenses for the patent protection of computer programs provide an opportunity to utilize (and potentially develop) these computer programs in other parallel, similar digital databases. This can be seen in the practice of cross-licensing.¹¹³ This would support the development of the digital database technological field as well as the digital database market.

Patent protection indirectly increases the level of financial benefits of the digital database as the patent accelerates the working capacity of employees of the particular database. Patent protection motivates employees¹¹⁴ “who enjoy challenges and who may benefit from remuneration or other benefits from the company”.¹¹⁵ This is particularly so with regard to computer program authors in digital databases who find encouragement in the protection offered by the protection of the patent which is a strong intellectual mechanism of protection. The inherent benefit of all of this is to be found in the attraction of investment since it increases the benefits to the whole digital database.

The above mentioned benefit again expands the competitive capacity¹¹⁶ of the particular database. Expansion of working capacity of the computer program

¹¹³ JS Pascual, RG Fernández, ‘Software patents and their impact in Europe’ [December 2000] Joel Spolsky (Internet) at 18 <www.dit.upm.es/~joaquin/report_en.pdf> accessed 5 April 2013; Commission of the European Communities, ‘Proposal for a Directive of The European Parliament and of The Council on the Patentability of Computer-Implemented Inventions’ COM(2002) 92 final at 26, 27 [hereafter COM(2002) 92 final]; P Tang, *et al.*, *supra* n.109, at 13.

¹¹⁴ Hart *et al.*, ‘The Economic Impact of Patentability of Computer Programs’ at 3.

¹¹⁵ WIPO, ‘Ways in Which Patents can Help Your E-Commerce Business’; RB McAllister, CE Vandlen, ‘Motivating Employees in R&D’ (2010) October 30, CHRR (Internet) at 2 <<http://digitalcommons.ilr.cornell.edu/chrr/>> accessed 1 July 2013.

¹¹⁶ COM (2002) 92 final at 28.

writers means that they are ready to offer a considerable level of competition¹¹⁷ to other parallel digital databases. As the heart of digital databases, the protection of computer programs has a wide role in promoting competition with other digital databases. Therefore, the patent protection of computer programs enhances the competitiveness¹¹⁸ of the program writers and this will ultimately result in increasing the place of the digital database in the particular database market. This competition also has the added benefit of attracting further investment to the field.

Patent protection of computer programs in digital databases further increases the level of protection in the entire digital database field. Patent protection opens avenues for the development of “strategic alliances with other companies and with this proposed system other digital databases that wish to take a license to particular company patents and thereby increase their own patent portfolios”.¹¹⁹ Therefore, this generally creates a higher level of standard of market for the digital databases under this proposed system.

¹¹⁷ Hart *et al.*, *supra* n.114, at 4, 6.

¹¹⁸ R Mazzoleni, RR Nelson, ‘The benefits and costs of strong patent protection: a contribution to the current debate’ (1998) 27 ESBVRP 273 at 281.

¹¹⁹ WIPO, ‘Ways in Which Patents can Help Your E-Commerce Business’.

3.6. Rationale for patent protection of computer programs in digital databases

This research mainly focuses on the protection of digital databases, where data is maintained and manipulated by computer programs. As suggested in this thesis throughout, the computer program in a database is a vital component. Computer programs in digital databases have their own functions to enhance the value and/or usefulness of information and, therefore, computer programs are an inseparable part of a particular database. As noted at the beginning of this Chapter,¹²⁰ digital databases can be protected by copyright and patents. One of the main themes of this thesis is that copyright protection should be for data content of digital databases while computer programs are protected by patents. This sub-section will include a discussion on the rationale of patent protection for computer programs.

Patent protection of computer programs has been unpopular¹²¹ and there are two reasons for this, practical and statutory. Practical, because patents are expensive and time consuming to apply for and maintain and, statutory, because there are exclusions relating to computer programs in the Patents Act 1977.

This research suggests reviewing these two reasons in a different manner. This should be done as this attracts investors to the digital database field. This is

¹²⁰ See this Chapter at 3.2. Origin of the patent protection issue.

¹²¹ R Bakels, PB Hugenholtz, 'The patentability of computer programs-Discussion of European-level legislation in the field of patents for software' (The European Parliament, Working Paper Legal Affairs Series JURI 107 EN 04/2002, April 2002) at 32 <<http://www.ivir.nl/publications/other/softwarepatent.pdf>> accessed 21 February 2013 [hereafter Bakels, PB Hugenholtz, 'The patentability of computer programs-Discussion of European-level']; Carr, R Arnold, *Computer software: Legal protection in the United Kingdom* 127.

what amends the law and amends the functions of law enforcement agencies to overcome these reasons. This proposal explores the availability of patent protection of computer programs in digital databases. For example, Sri Lanka can provide a less expensive forum for enforcing patents, like the UK has done with the creation of a Patents County Court.¹²²

The rationale for patent protection of computer programs in digital databases will examine the availability of patentability of computer program with reference to the statutory requirement of patent claims. As noted above, the inventions must demonstrate that they are new, that there is an inventive step, that they have an industrial application and that they are useful and are disclosed with sufficient clarity.¹²³ All of these requirements should be considered in terms of the contribution of computer programs to digital databases. Therefore, this proposed system does not identify the computer program and digital database as different components because they are interdependent. The proposed system of protection is for one mechanism which consists of different intellectual property tools, such as copyright and patents. In this mechanism, as a bundle of rights, copyright protects the information while patents protect the computer program which enhances the value and/or usefulness of information in digital database content. Providing patent protection on computer programs

¹²² 'Patents County court' <<http://www.justice.gov.uk/courts/rcj-rolls-building/patents-county-court>> or <<http://www.judiciary.gov.uk/you-and-the-judiciary/going-to-court/county-court/patents-county-court>> accessed 21 February 2013; Carr and R Arnold, *ibid.*, 127; For the evaluation of the procedural reforms made to the Patents County Court see, R Jarman, I Colville, 'Two years on: the Patents County court' (2012) 41/12 CIPAJ 700.

¹²³ Patents Act 1977/UK, s 1(1), (2); EPC 2000, art. 52; IP Act of 36/2003/SL, ss 62-66; *Duns Licensing Associates/Estimating sales activity* T154/04, [2007] EPOR 38; *Aerotel Ltd v Telco Holdings Ltd* [2007] RPC 7; VICOM/Computer-related invention T208/84 [1987] EPOR 74.

in digital databases helps to attract investment to the database field. Patents also stimulate investment in research and development.

Computer programs in digital databases involve an information function which enhances the value and/or usefulness of information in digital databases. Databases share information with other databases in order to enhance the value and/or usefulness of data. The best example of this is the Internet, a giant database connecting millions of databases.¹²⁴ For example, Google Books is in partnership with Harvard University, Harvard University Library, Harvard+Google, University of Oxford, Bodleian Library, Oxford+Google, Stanford University, Stanford University Libraries (SULAIR), Stanford+Google to name but a few.¹²⁵ Google Books holds data patterns which consist of data that may have been held at Harvard University and/or Harvard University Library and/or Oxford+Google. These kinds of online digital databases can link with other online digital databases in order to bring out the functionalities which are expected from digital databases. The end result of these functionalities enhances the value and/or usefulness of data. This sharing process can be protected by patents as it is a part of the process i.e. computer programs in digital databases and, as such, has patentable elements.¹²⁶ The benefits of patent protection can be enjoyed by the particular online digital database market. Therefore, patent protection of computer programs accelerates the

¹²⁴ Internet *inter alia* is considered as a network. S Mason, 'The Sources of Digital Evidence' in S Mason (ed), *Electronic Evidence* (2nd edn, LexisNexis 2010) 12.

¹²⁵ Google Books, 'Google Books Library Project' <<http://books.google.com/googlebooks/library/>> accessed 19 July 2013.

¹²⁶ Bakels, PB Hugenholtz, 'The patentability of computer programs-Discussion of European-level' at 8; *Koch & Sterzel* T26/86 [1988] OJEP 19.

dissemination of data and improves the economy, as it is based on information networks. Shapiro and Varian state that:

“Whereas the old economy was driven by economies of scale, the new one is driven by the economies of networks and positive feedback. The value of connecting to a network depends on the number of other people already connected to it. Other things being equal, it is better to be connected to a bigger network. Positive feedback makes the strong get stronger and the weak get weaker. In its most extreme form, a single firm or technology may completely dominate the market”.¹²⁷

When a technology dominates the market, it should be protected by a strong protection mechanism in order to strike a balance between database owners and users. As this Chapter shows, patents are capable of providing a strong protection mechanism. Therefore, when the technology, i.e. computer programs in digital databases, dominates the market, patents provide strong protection. This protection further helps to attract investment.¹²⁸ In relation to the EU experience, a Working Paper of the European Parliament on the patentability of computer programs has argued that patent protection increases and strengthens the network effects. “If the document file format used by Word for Windows would be protected by a patent, it would not merely be difficult but legally impossible (absent a license) to exchange documents with other word processing programs”.¹²⁹ Since the aforesaid situation limits the growth of more profitable computer network functions, inventors would be discouraged to obtain patents. Formulation of the policies concerning the patent protection should

¹²⁷ C Shapiro, HR Varian, *Information Rules, A Strategic Guide to the Network Economy* (Boston Massachusetts: Harvard Business School Press 1999) 175-176.

¹²⁸ AM Imam, ‘How does patent protection help developing countries?’ (2006) 3 IRI PCL 245 at 254.

¹²⁹ Bakels, PB Hugenholtz, ‘The patentability of computer programs-Discussion of European-level’ at 20.

therefore be focused on increase of the network function rather than limiting the same. Hart *et al.*, note the following regarding the issue of network effects:

“Network effects are a key issue. If positive feedback is very powerful, the strong get stronger and the weak get weaker. The end result in a world of increasing returns may be the leading product’s becoming dominant and thus, the tendency of the market may be towards monopolization ... Strong IPRs can re-enforce such a dominant position”.¹³⁰

Therefore, patent protection of computer programs in digital databases promotes economic features for the information technology market. This thesis emphasises the requirement of attracting investment in this information technology market.¹³¹

3.6.1. New and non-obviousness of computer programs in digital databases

The previously mentioned Working Paper¹³² states that:

“Computer programs are explicitly mentioned on the exclusion list of Subsection 52(2) of EPC 2000. Subsection (3) however specifies that subject matter listed in Subsection (2) is only excluded from patentability ‘as such’. Chemical theories for instance cannot be patented ‘as such’, but a chemical theory leading to a new medicine can indeed be patented in the context of a pharmaceutical patent claim. Similarly, a computer program can be patented if it is part of diagnostic equipment patent claims”.¹³³

The examination that follows in this sub-heading is based on this argument. A computer program can be patented if it is part of the equipment of a patent

¹³⁰ Hart *et al.*, ‘The Economic Impact of Patentability of Computer Programs’ at 30-31.

¹³¹ See Chapter 1 at 1.6. The role of investment in database protection and 1.6.2. Link between protection and investment.

¹³² Bakels, PB Hugenholtz, ‘The patentability of computer programs-Discussion of European-level’.

¹³³ Bakels, PB Hugenholtz, *ibid.*, at 8.

claimed invention.¹³⁴ A computer program is a tool which is used to enhance the value and/or usefulness of data content in a digital database. A digital database seeks to enhance the value and/or usefulness of data and a computer program is said to be part of this equipment. Throughout this thesis it is argued that a computer program in a digital database is part of that particular database as it enhances the usefulness and value of information in the digital database and neither the computer program nor the database can exist independently of each other.

A computer program needs to be *new* and *not obvious*. However, determining novelty is no easy task.¹³⁵ In the US law, having considered the statements in *State St. Bank & Trust Co. v. Signature Fin. Group, Inc.*¹³⁶ Hart *et al.*, noted that:

“Judge Rich may have articulated in *State Street Bank*, that if a non-technological invention is new and unobvious and is useful in commerce or industry then society should encourage the making of such inventions and their use as basis for innovation by granting patents on them”.¹³⁷

Even though the computer program in a digital database is a non-technical invention but new and non-obvious, it would receive patent protection as it is useful in commerce or industry. The usefulness of digital databases can be seen in the broad range of industries where they are found,¹³⁸ such as the telecommunications industry, healthcare industry, investment industry, and the

¹³⁴ *Koch & Sterzel* T26/86, [1988] OJEP 19.

¹³⁵ Carr, R Arnold, *Computer software: Legal protection in the United Kingdom* 138.

¹³⁶ 149 F.3d 1368 (Fed. Cir. 1998).

¹³⁷ Hart *et al.*, ‘The Economic Impact of Patentability of Computer Programs’ at 8.

¹³⁸ See this Chapter at 3.6.3. Industrial applicability.

manufacturing industry.¹³⁹ Therefore, being granted patent protection for computer programs in digital databases addresses the infrastructure of society, which finally lies with the economic development requirements of a country.

In the US case of *Dewey & Almy Chem. Co. v. Mimex Co.*,¹⁴⁰ it was explained that the novelty requirement prevents people from inventing that which has already been invented. The requirement of new and non-obviousness helps to shape the digital database industry as it avoids investors from wasting their investment in unnecessary investment opportunities. Hulse states that “[t]he non-obviousness requirement also encourages industry to use available solutions before wasting resources on unnecessary research”.¹⁴¹ Therefore, the patent requirements guide the investors in order to achieve the maximum return on their investments. Availability of the information on the existing patents should be a crucial element for such effective guidance.

¹³⁹ Fayyad *et al.*, ‘From data mining to knowledge discovery in databases’ at 39; Piatetsky-Shapiro *et al.*, ‘An Overview of Issues in Developing Industrial Data Mining and Knowledge Discovery Applications’ at 93.

¹⁴⁰ 124 F.2d 986, 987- 988 (2d Cir. 1942).

¹⁴¹ RA Hulse, ‘Patentability of Computer Software After *State Street Bank & Trust Co. v Signature Financial Group, Inc.*: Evisceration of The Subject Matter Requirement’ (1999) 33 UCCLR 491 at 500.

3.6.2. Inventive step

In examining the requirement of the inventive step¹⁴² for patent protection, this thesis seeks to identify the benefits of complying with this requirement. The thesis will subsequently link this patent requirement with the development needs and the requirement to attract investment to the database field in Sri Lanka.

The Technical Boards of Appeal of the European Patent Office in Decision T119/82¹⁴³ pointed out that it was important to reveal the advantage or benefit to society in order to achieve the requirement of inventive step in a patent claim. Computer programs can be used in a vast range of industries.¹⁴⁴ Hence, they should comply with the requirement of inventive step in order to obtain the patent protection, eventually the society would also be benefited. This can be used to achieve the purposes of development.

Additional, strong protection attracts more investors as this thesis suggests throughout¹⁴⁵ and patent protection of computer programs in digital databases protects investment. In the US, this was held in *Stratoflex, Inc. v. Aeroquip Corp.*¹⁴⁶ “the commercial success of a new product may indicate that it is

¹⁴² EPC 2000, arts. 52, 56 ; Patents Act 1977/UK, ss 1, 3; IP Act of 36/2003/SL, ss 63, 65; *Graham v John Deere Co.*, 383 US 1, 11-12 (1966).

¹⁴³ Decision T119/82 OJEPO 5/84 App No- 79301547.0, 12 December 1983.

¹⁴⁴ “All modern industry depends upon programmed computers, and one must be astute not to defeat patents on the ground that the subject matter is excluded under Article 52 unless the invention lies in excluded subject matter as such”. *Research In Motion UK Ltd. v Inpro Licensing SARL* [2006] EWHC 70 (Pat) at para 187 (per Pumfrey J).

¹⁴⁵ See Chapter 1 at 1.6.2. Link between protection and investment.

¹⁴⁶ 713 F.2d 1530, 1539 (Fed. Cir. 1983).

inventive”.¹⁴⁷ In the EU, the ‘Proposal for a Directive of the European Parliament and of the Council on the patentability of computer-implemented inventions’ suggests that:

“[P]atents for computer-implemented inventions might strengthen big players’ market positions ... patents for incremental innovation which is typical of the software industry entail the economic costs of figuring out the patent holders and negotiating the necessary licences”.¹⁴⁸

This proposal further points out that the examination of the inventive step is an essential requirement in order to prevent invalid patents.¹⁴⁹ The proposed system for the Sri Lankan databases also respects this point as it helps to prevent an invalid patent. Protection of the market attracts investors to the digital database field¹⁵⁰ because prevention of invalid patents confirms the protection of the market. Prevention of infringement protects the investment in inventions.¹⁵¹ The European Parliament confirmed that, based on the study of ‘*the Economic Impact of Patentability of Computer Programs*’,¹⁵² there was “no evidence that European independent software developers have been unduly affected by the patent positions of large companies or indeed of other software developers”.¹⁵³ As this practical example explains, the proposal for patent protection of computer programs would not affect the small number of

¹⁴⁷ RA Hulse, ‘Patentability of Computer Software After *State Street Bank & Trust Co. v Signature Financial Group, Inc.*: Evisceration of The Subject Matter Requirement’ (1999) 33 UCCLR 491 at 499.

¹⁴⁸ COM(2002) 92 final at 6.

¹⁴⁹ COM(2002) 92 final at 6.

¹⁵⁰ See Chapter 1 at 1.6.2. Link between protection and investment.

¹⁵¹ Landes, RA Posner, *The Economic Structure of Intellectual Property Law* at ch 11- The Economics of Patent Law, 294ff.

¹⁵² Hart *et al.*, ‘The Economic Impact of Patentability of Computer Programs’.

¹⁵³ COM(2002) 92 final at 6.

programmers and would further help to attract them to the digital database field.¹⁵⁴

3.6.3. Industrial applicability

The practicality of an invention can be determined by the requirement of industrial application,¹⁵⁵ and this would show the usefulness of invention.¹⁵⁶ This thesis examines the patent requirements of industrial applicability in relation to economic usefulness. Economic usefulness is linked with the notion of investment.¹⁵⁷ This is more practical with the US law with compared to the UK law. In the US law, in *Brenner v. Manson*,¹⁵⁸ Fortas J held that:

“This is not to say that we mean to disparage the importance of contributions to the fund of scientific information short of the invention of something ‘useful,’ or that we are blind to the prospect that what now seems without ‘use’ may tomorrow command the grateful attention of the public. But a patent is not a hunting license. It is not a reward for the search, but compensation for its successful conclusion. ‘[A] patent system must be related to the world of commerce, rather than to the realm of philosophy’”.¹⁵⁹

This signifies that the interpretation of the requirement of industrial application should be done within the meaning of the commercial sphere. Commercialisation addresses the investment and returns/benefits on the same. Thesis suggests that the industrial application of computer programs is

¹⁵⁴ See Chapter 1 at 1.6.2. *supra* n.150.

¹⁵⁵ Patents Act 1977/UK, s 1(1) (c); EPC 2000, art. 52(1).

¹⁵⁶ *Max-Planck/BDP1 Phosphatase* T870/04 [2006] EPOR 14 at para. 20; *Fujikawa v Wattanasin* 93 F.3d 1559, 1563 (Fed. Cir. 1996).

¹⁵⁷ Landes, RA Posner, *The Economic Structure of Intellectual Property Law* 315.

¹⁵⁸ 383 US 519 (1966).

¹⁵⁹ *Brenner, ibid.*, at 536; *Application of Ruschig*, 52 CCPA (Pat.) 1238, 1245, 343 F.2d 965, 970 (per Rich J); *Katz v Horni Signal Mfg. Corp.* 145 F.2d 961 (CA 2d Cir 1944).

commercially useful, and therefore it should be patented. Investment in computer programs in digital databases falls within the commercial sphere. Therefore, the interpretation of the requirement of industrial application of computer programs addresses the investment in digital databases.

Section 4(1) of the Patents Act 1977, and Article 57 of the EPC 2000 state that an invention shall be taken to be capable of industrial application if it can be made or used in any kind of industry, including agriculture. Digital databases can be applied in different kinds of modern industry thanks to the functions of computer programs used¹⁶⁰ because modern industry depends on programmed computers.¹⁶¹

The US regulatory approach is related to industrial applicability or concept of utility is different from that of the UK. In the US case of *Fujikawa v. Wattanasin*¹⁶² it was noted that for over 200 years, the concept of utility has occupied a central role in the US patent system.¹⁶³ Circuit Judge Clevenger held that:

“The basic *quid pro quo* contemplated by the Constitution and the Congress for granting a patent monopoly is the benefit derived by the public from an invention with substantial utility. Consequently, it is well established that a patent may not be granted to an invention

¹⁶⁰ Fayyad *et al.*, ‘From data mining to knowledge discovery in databases’ at 39; Piatetsky-Shapiro *et al.*, ‘An Overview of Issues in Developing Industrial Data Mining and Knowledge Discovery Applications’ at 93.

¹⁶¹ *Research In Motion UK Ltd. v Inpro Licensing SARL* [2006] EWHC 70 (Pat) at para 187 (per Pumfrey J).

¹⁶² 93 F.3d 1559 (Fed. Cir. 1996) at 1563.

¹⁶³ *Brenner v Manson*, 383 US 519 (1966) at 529.

unless substantial or practical utility for the invention has been discovered and disclosed”.¹⁶⁴

This thesis respects this long running US tradition of practical utility the invention achieved. In this regard, the UK position is different as the case of *Eli Lilly & Co v Human Genome Sciences Inc.*,¹⁶⁵ has significantly undermined the position of industrial applicability.¹⁶⁶ In this case, Lord Neuberger pointed out that:

“Art.5 of the [Biotech] Directive¹⁶⁷ confirms that a naturally occurring gene is patentable, but states that ‘[its] industrial application ... must be disclosed in the patent application’. As Jacob L.J. put it, ‘However clever and inventive you may have been in discovering a gene sequence, you cannot have a patent for it or for the protein for which it encodes if you do not disclose how it can be used’”.¹⁶⁸

In relation to the computer program in a digital database, its industrial application or how it can be used is understandable. Useful data patterns and discovered knowledge through the functions of computer programs in digital databases are industrially applicable in a large number of industries.¹⁶⁹ Fayyad *et al.*, provide examples from three industries: the healthcare industry where “it is common for specialists to periodically analyze current trends and changes in health-care data”;¹⁷⁰ the manufacturing industry, where the

¹⁶⁴ *Yoshihiro Fujikawa and others v Sompong Wattanasin* 93 F.3d 1559 (Fed. Cir. 1996) at 1563.

¹⁶⁵ [2012] RPC 6.

¹⁶⁶ EPC 2000, arts. 52, 57.

¹⁶⁷ Directive 98/44/EC of the European Parliament and of the Council of 6 July 1998 on the legal protection of biotechnological inventions, (OJ L 213 , 30/07/1998 P 0013 - 0021).

¹⁶⁸ [2012] RPC 6 at para 35.

¹⁶⁹ Piatetsky-Shapiro *et al.*, ‘An Overview of Issues in Developing Industrial Data Mining and Knowledge Discovery Applications’ 89.

¹⁷⁰ Fayyad *et al.*, ‘From data mining to knowledge discovery in databases’ at 37; Piatetsky-Shapiro *et al.*, *ibid.*, at 93.

CASSIOPEE troubleshooting system has been “developed as part of a joint venture between General Electric and SNECMA [and has been applied] by three major European airlines to diagnose and predict problems for the Boeing 737”;¹⁷¹ and the telecommunications industry, which has “developed a telecommunications alarm-sequence analyzer...in cooperation with a manufacturer of telecommunications equipment and three telephone networks”.¹⁷²

However, the proposed system considers this practical utility in a broad manner in the light of commercial notions. Computer programs in digital databases can be patentable under the proposed system, since they are able to demonstrate the practical utility of being able to attract investment, which is a useful end.¹⁷³

As discussed above, in relation to the requirement of industrial application, the patent protection proposed in this thesis is based upon the meaning of the useful art stated in the US Constitution.¹⁷⁴ This increases the applicability of the interpretative requirement of industrial applicability in the field of commercial interests and societal needs.¹⁷⁵ In the US, in *Computer Associates International, Inc. v. Altai, Inc.*,¹⁷⁶ Walker J held that:

¹⁷¹ Fayyad *et al.*, *ibid.*, at 38; Piatetsky-Shapiro *et al.*, *ibid.*, at 92.

¹⁷² Fayyad *et al.*, *ibid.*, at 39; Piatetsky-Shapiro *et al.*, *ibid.*, at 93.

¹⁷³ *Funk Bros. Seed Co. v Kalo Inoculant Co.* 333 US 127 (1948) at 130 (per Douglas J); *DeForest Radio Co. v General Electric Co.*, 283 US 664 at 684-685; *Mackay Radio & Tel. Co. v Radio Corp.*, 306 US 86 (1939) at 94; *Cameron Septic Tank Co. v Saratoga Springs*, 2nd Cir. 159 F. 453 at 462-463.

¹⁷⁴ The Constitution of the United States, Article 1, Section 8, “To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries”.

¹⁷⁵ The author’s benefit, however, is clearly a ‘secondary’ consideration. *United States v Paramount Pictures, Inc.*, 334 US 131, 158, 68 S.Ct. 915, 929, 92 L.Ed. 1260 (1948); The ultimate aim is to stimulate artistic creativity for the interest of general public. *Twentieth*

“Article I, section 8 of the Constitution authorizes Congress to promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries. The Supreme Court has stated that the economic philosophy behind the clause ... is the conviction that encouragement of individual effort by personal gain is the best way to advance public welfare”.¹⁷⁷

One of the main aims of this thesis is to attract the investor to the field of digital databases by creating protection mechanisms for digital databases. As a part of digital databases, computer programs have to comply with the requirement of industrial applicability and usefulness which need to be protected under patent. This requirement can be interpreted with a demonstration of the commercial interests of the society as it comes under the term of utility or usefulness. Investment constitutes a commercial interest.¹⁷⁸ Therefore, patent protection for computer programs in digital databases fulfils the necessity of attracting investment to digital databases.

Century Music Corp. v Aiken, 422 US 151, 156, 95 S.Ct. 2040, 2044, 45 L.Ed.2d 84 (1975) cited in *Computer Associates International, Inc. v Altai, Inc.* 982 F.2d 693 (1992) at 696.

¹⁷⁶ 982 F.2d 693 (1992).

¹⁷⁷ *Computer Associates International, ibid.*, at 696; *Mazer v Stein* 347 US 201 (1954).

¹⁷⁸ See Chapter 1 at 1.6. The role of investment in database protection and 1.6.2. Link between protection and investment.

3.7. “As such” exclusion

The purpose of the examination of the term “as such” is to open up a way of providing patent protection for computer programs in digital databases. The data manipulation process is what gives computer programs their specific function and it is the notion of further technical effects which provides the skills necessary to enhance the value and/or usefulness of data.

Despite the implication of the term “as such” is mostly a UK law approach, some discussions on the same can be found from the EU law. The EPC 2000 provides a number of subjects, such as business methods and computer programs, which are not considered to be inventions and, therefore, are not patentable.¹⁷⁹ The Convention further states that this exclusion from patentability is only effective for such subjects, “as such”.¹⁸⁰ The European Patent Office (EPO) has used this point to circumvent the limitations of the meaning of “as such”. To reach this purpose, programs and methods can be declared not to be “as such”. This argument was developed in Decision T1173/97:

“It pointed out that on the basis of the rules of interpretation according to Article 31 of the Vienna Convention on the Law of Treaties, Article 52(2) and (3) EPC could be understood to mean that computer programs claimed as such were excluded from patentability, regardless of their technical or nontechnical content. Technical character became relevant only when a computer program was claimed within the framework of a method or an apparatus”.¹⁸¹

¹⁷⁹ EPC 2000, arts. 52(2)(c), 52(3).

¹⁸⁰ EPC 2000, art. 52(3); Decision - T 1173/97.

¹⁸¹ Decision - T 1173/97 at 6.

The development of this decision emphasises the meaning of “without technical character”. In the UK, in *Fujitsu’s Application*¹⁸² Aldous LJ delivered a leading judgment which was followed by *Astron Clinica Limited and others v The Comptroller General of Patents, Designs and Trade Marks*¹⁸³ that held that it has always been “a principle of patent law that mere discoveries or ideas are not patentable, but those ideas and discoveries which have a technical aspect or make a technical contribution are”.¹⁸⁴ Furthermore, in the EU, in *Aerotel Ltd v Telco Holdings Ltd and Macrossan’s Application* it was held that:

“According to the case law of the Boards of Appeal the use of the term ‘invention’ in article 52(1) EPC in conjunction with the so-called ‘exclusion provisions’ of article 52(2) and (3) EPC , which mention subject matter that ‘in particular shall not be regarded as inventions within the meaning of paragraph 1’, is understood as implying a ‘requirement of technical character’ or ‘technicality’ which is to be fulfilled by an invention as claimed in order to be patentable. Thus an invention may be an invention within the meaning of article 52(1) if for example a technical effect is achieved by the invention or if technical considerations are required to carry out the invention”.¹⁸⁵

Finally, in *AT&T/Computer system*, T204/93, it was explained that:

“...[C]omputer programs as such, independent of such an application, are not patentable irrespective of their content, *i.e.* even if that content happened to be such as to make it useful, when run, for controlling a technical process”.¹⁸⁶

Therefore, the computer programs “as such” are not patentable. This means that the computer programs which are not “as such” can be patentable and,

¹⁸² [1997] RPC 608.

¹⁸³ [2008] EWHC 85 (Pat) at para 25 (hereafter *Astron Clinica Limited and others*).

¹⁸⁴ *Fujitsu’s Application* [1997] RPC 608 at 614.

¹⁸⁵ [2007] Bus LR 634 at 660.

¹⁸⁶ *AT&T/Computer system*, T204/93, Technical Boards of Appeal 3.5.1, [2001] EPOR 39, at para 3.13.

therefore, that all computer programs are not excluded from patentability within the meaning of Article 52(2) and 52(3) of EPC 2000.¹⁸⁷ One of the basic ideas of the suggested patent protection system for computer programs in digital databases lies with this argument. Computer programs in digital databases cannot be considered as computer programs “as such”, due to their function in digital databases in enhancing the value and/or usefulness of data, which is carried out through a technical process.

3.8. Scope of “as such” application to the proposed system

Computer programs in digital databases are automated discovery tools which enhance the value and/or usefulness of data. The process of this enhancement is a result of a process of technical characters. These technicalities are provided by the computer program which is used in the process of value or usefulness enhancement of data. This process is generally known as KDD.¹⁸⁸ Goebel and Gruenwald observe that “[k]nowledge discovery and data mining are techniques to discover strategic information hidden in very large databases”.¹⁸⁹ After their initial discovery the value and/or usefulness of data will serve to attract commercial value.¹⁹⁰ This notion, as it is a business tool, attracts investors to the database field. Conley *et al.*, note:

¹⁸⁷ *IBM/Computer Program Product T1173/97* [1999] OJEPO 609; *Astron Clinica Limited and others* [2008] EWHC 85 (Pat) at para 13.

¹⁸⁸ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

¹⁸⁹ Goebel, L Gruenwald, ‘A Survey of Data Mining and Knowledge Discovery Software Tools’ at 20.

¹⁹⁰ See Chapter 1 at 1.5. *supra* n. 188.

“The potential economic benefits of knowledge discovery initiatives have opened new avenues for selling raw data, digital tools, and combinations of the two. A range of businesses find the ‘mining’ of data economically fruitful in both producing and marketing goods and services. New patterns, trends, and associations can be identified through the merging of vast amounts of disparate data. The use of constantly expanding search capabilities can result in the discovery of knowledge or products that possess previously unappreciated market value. Data which is scattered among a variety of sources can be matched, collated, and reproduced in new formats that can give value to otherwise random facts”.¹⁹¹

Practical examples of this situation can be found from different types of discount/loyalty cards schemes issued by super markets, such as, in UK supermarkets, *Tesco Club card*, *Sainsbury* and *BP Nectar card* and various credit cards issued by banks and other financial institutions. The purposes of these discount/loyalty card schemes are identifying and gathering the data on consumer/purchasing habits and demographic information while providing discounts to the customers.¹⁹² The purposes of the functions of the credit cards are identifying and gathering of credit cards holders’ expenditure habits while providing plastic money. After collecting and analysing such data/information by the central computer program in the supermarket’s¹⁹³ or bank’s/financial

¹⁹¹ Conley *et al.*, ‘Database Protection in a Digital World’ at para 14.

¹⁹² Conley *et al.*, *ibid.*, at para 14.

¹⁹³ E-POS (Electronic Point of Sale) is the modern till operations system at supermarkets. “EPoS Systems, provide a fast and efficient way of dealing with customers. They handle the calculations involved in sales (totals and change), issue receipts – these have historically been the main function of normal tills... They can integrate directly with credit card payment systems, keep track of stock levels and of course keep track of customer information. The ability to manage stock and CRM (customer relationship management) allows EPoS systems to make a measurable difference to the bottom line. Both in terms of time saved and of in highlighting opportunities and also weaknesses in a business”. <<http://www.epos.co.uk>> accessed 1 May 2013.
Functionalities of E-POS System available on <<http://www.entrepreneur.com/encyclopedia/point-of-sale-pos-system>>, <<http://www.entrepreneur.com/article/77960>>, <<http://www.retailcare.com.au/pos>> <<http://www.posmatic.com/point-of-sale/what-is-point-of-sale.php>> accessed 22 and 23 March 2013.

institution's digital databases they organise the data into useful data patterns. The analysis of these patterns brings new knowledge which can be employed in different decision making process. For example, the process of providing discounts for customers, process of increasing the availability on the particular supermarket according to the customer usability, provides managed details to credit card holders in order to manage their expenditure such as Lloyds TSB Credit Card Money Manager.¹⁹⁴ Finally, data/information in supermarket "receipts have been transformed into a marketing goldmine".¹⁹⁵

Computer programs in databases manipulate the data in databases. Manipulation refers to "handling or controlling (a tool, mechanism, information, etc.) in a skilful manner or controlling or influencing (a person or situation) cleverly or unscrupulously".¹⁹⁶ It needs to be handled in a skilful manner in order to make use of the data in the databases. This skilfulness is provided by the computer program in the digital database which has been specially written for the purpose of the particular database. Therefore, this skilfulness of the computer program is specific to the particular program and is, therefore, separate from the other programs in the world.¹⁹⁷ The decision of the Technical Boards of Appeal in T-1173/97 observed that:

"A computer program product is not excluded from patentability under Article 52(2) and (3) EPC if, when it is run on a computer, it produces a further technical effect which goes beyond the 'normal'

¹⁹⁴ Lloyds TSB Bank website <http://www.lloydstsb.com/internet_banking/money_manager.asp> accessed 8 April 2013

¹⁹⁵ Conley *et al.*, 'Database Protection in a Digital World' at para 14.

¹⁹⁶ Oxford Online Dictionary <<http://oxforddictionaries.com/definition/manipulate>> accessed 3 November 2011.

¹⁹⁷ Decision - T 1173/97.

physical interactions between program (software) and computer (hardware)".¹⁹⁸

According to this argument, computer programs in digital databases are not “as such” and therefore they can be patented.

3.8.1. Further technical effect

By the Decision T1173/97, the Boards of Appeal of the EPO introduced the phrase, “further technical effect”. Accordingly, the computer programs are patentable subject matter when they have this “further technical effect” which emphasises higher level of interaction between the program and the computer. This thesis tends to discuss this notion of “further technical effect” because it opens an avenue to circumvent the restrictions imposed by the phrase “as such”. This thesis takes a pro-patent protection approach towards the computer programs in digital databases. The aforesaid phrase also underscores the argument in respect of the patentability of computer programs.

In this regard this thesis will examine the relevant approaches under EPO and UK decisions which have been used to mitigate the adverse impact of the phrase “as such”. Identifying the technical effects of computer programs in digital databases is one of the basics of the proposed system of patent protection. Without these technical effects, the enhancement of usefulness and value of data in digital databases is a meaningless effort. Search engines, for example, built by computer programs speed up the process of searching out the data. Therefore, technical features of the computer program of the digital

¹⁹⁸ Decision - T 1173/97 at 1 (head note).

database are carrying out specific and inherent functions of the particular database.

The term “further technical effect” used in the previous section is a turning point in relation to the patentability of computer programs. Normal physical interaction refers to the execution of a program by the central processing unit (CPU) of the computer. This normal physical interaction has been overruled by the Decision T1173/97 of the Boards of Appeal of the EPO with the intention of circumventing the European Patent Convention’s restrictions on computer program patenting. This decision introduced the term “further technical effect”¹⁹⁹ deviating from the meaning and interpretation of the term “as such”.²⁰⁰ Computer programs in digital databases need to be equipped with further technical effect in order to enhance the value and/or usefulness of data in digital databases.²⁰¹ “This means that [computer] programs [in digital databases] must be considered as patentable inventions when they have a technical character”.²⁰²

The UK and EPO have taken different approaches to the issue of technical effect: the four test step and the problem-and-solution approach respectively.²⁰³

The UK approach has been taken from the *Aerotel v. Telco & Neal Macrossan’s*

¹⁹⁹ Decision - T 1173/97 at paras 6.6, 8, 9.1 and 9.4.

²⁰⁰ Decision - T 1173/97 at para 10.1.

²⁰¹ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

²⁰² Decision - T 1173/97 at para 5.3; INFINEON TECHNOLOGIES/Circuit simulation I [2010] EPOR 9; *Programs for computers*, G3/08 European Patent Office (Enlarged Board of Appeal- 12 May 2010) [2010] EPOR 36.

²⁰³ Decision - T 0154/04 - 3.5.01 (Estimating sales activity/DUNS LICENSING ASSOCIATES) (Application no 94912949.8) (15 November 2006).

Application,²⁰⁴ where the four steps were: “properly construe the claim, identify the actual contribution, ask whether the contribution falls solely within excluded subject matter, and check whether the contribution is technical in nature”.²⁰⁵

In considering the EPO approach, it is observed that, in Decision T 0154/04, the ‘contribution’ or ‘technical effect’ approach has been abandoned.²⁰⁶ The EPO decided that “[t]he examination whether there is an invention within the meaning of Article 52(1) to (3) EPC should hence be strictly separated from and not mixed up with the other three patentability requirements referred to in Article 52(1) EPC”.²⁰⁷

An invention is patentable pursuant to Article 52(1) to (3) of EPC 2000. The invention must have a technical character among other requirements such as being novel, involve in an inventive step and being industrially applicable.²⁰⁸ This technicality is directly involved with the enhancement of value and/or usefulness of data in digital databases which is the main purpose of setting up a digital database. However, being granted patentability for technical characteristics brings problems to the computer program protection field. All computer programs can be said to produce technical effects when run on a computer. These technical effects can be identified as physical changes such as electric, magnetic, and sound and visual which occur in the hardware when the program is run. Therefore, when the interpretation mentions a technical

²⁰⁴ [2006] EWCA Civ 1371.

²⁰⁵ *Aerotel*, *ibid.*, at para 40.

²⁰⁶ Decision T 0154/04 at 31, 32 (Reason 12).

²⁰⁷ Decision T 0154/04 at 27 (Reason 10).

²⁰⁸ VICOM/Computer-related invention Decisions T 208/84 [1987] OJEP014; Data processor network/IBM Decisions T 6/83 [1990] OJEP0 5; Decision - T 1173/97.

effect as a requirement for not being “as such” according to Article 52 of the EPC 2000, then all programs would not be in the “as such” category. To avoid this problem, this proposed system suggests using this argument only for the computer program in the digital database. Utility patent protection would be the next step of this argument which is examined below at 3.9. of this Chapter.

3.8.2. Meaning of the term technical and its relevance to the proposed system

In view of the proposed system, the technicality of the computer program in a digital database links with the functions of data mining and KDD. Making sense of the data with the aid of the computer program is the end product of a digital database. The technicality of the computer program in this process depends on the interpretation of function by the digital database.

However it can be observed that there is no firm meaning for the term ‘technical’.²⁰⁹ Its meaning is reflected in the usage of this word. For example, *technical achievement* means that which involves applied and industrial sciences while *technical terms* means something relating to a particular subject such as art, or craft, or its techniques. In the Technical Boards of Appeal case, *VICOM/Computer-Related Invention*, it was argued that “the technical means

²⁰⁹ Koo, ‘Patent and copyright protection of computer programs’ at 181; Decision - T 1173/97; Computer program product II/IBM (T0935/97); Controlling pension benefits system/PBS PARTNERSHIP (T0931/95); EPC 2000, rules 27, 29.

might include a computer comprising suitable hardware or an appropriately programmed general purpose computer”.²¹⁰

Therefore, technical can be used in a broad sense and can be interpreted according to the situation. In *VICOM* it was also argued that “[a]ccordingly, if convenient, the use of mathematical expressions is admissible if the skilled person can understand what technical means are necessary from the description and/or general knowledge”.²¹¹ This can be observed in the case interpretations under the EPC 2000.²¹²

As this word is not defined in the EPC 2000, the task of claiming patentability for computer programs is not a difficult process under the interpretation of the word, “as such”. The argument and way of this circumvention can be utilized for the purpose of patentability of computer programs in digital databases in Sri Lanka, even though this Convention is not a part of Sri Lankan law.

In the EPO Technical Boards of Appeal, in Decision T1173/97 it was argued that:

“Article 52(2)(c) of EPC 2000 gives a non-exhaustive list of negative examples, including computer programs. Since this paragraph also mentions activities which are clearly outside the realm of technology, the exclusion of computer programs as such can only be understood as intending to exclude these programs to the same extent as these

²¹⁰ *VICOM/Computer-Related Invention T208/84 Technical Boards of Appeal 3.5.1[1987] EPOR 74 at 79.*

²¹¹ *VICOM, ibid., at 74*

²¹² *Decision of the Enlarged Board of Appeal dated 8 April 2004 G 1/03 Case Number: G 0001/03, Application Number: 92116446.3, Publication Number: 0536607 [Title of invention: Heat processable metallic appearing coatings]; VICOM, ibid.; T225/84 Boeing/Spoiler Device [1986] 5 EPOR 263; T126/84 La Telemecanique Electrique/ Power Measuring Device [1986] 6 EPOR 342; T191/84 Siemens/Insulin Infusion Device [1986] 6 EPOR 318; Eisai/Second Medical Indication, G05/83, Enlarged Board of Appeal [1979-85] EPOR B241; AT&T/Computer system, T204/93, Technical Boards of Appeal 3.5.1 [2001] EPOR 39.*

other activities, which all concern non-technical subject matter. A 'program as such' (excluded from patentability) would therefore in fact be a non-technical program".²¹³

However the computer program in a digital database is a technical program as it is doing the process of enhancing the value and/or usefulness of information in a particular database. In *AT&T/Computer system*, T204/93, the following explanation is given:

"That computer programs may be useful, or applicable to practical ends, is also not disputed. For instance, a computer may control, under control of a program, a technical process and, in accordance with the Board's case law, such a technical process may be patentable".²¹⁴

Without the technical characteristics, this process is a meaningless effort and, therefore, the technicality of a computer program in a digital database is a must for the digital database's main purpose which is to manipulate data.

In summary, not all computer programs are excluded from patentability in conformity with the EPC 2000. The interpretation of Articles 52(2)(c) and (3) of the EPC 2000 shows that computer programs which are not "as such" can be patentable.²¹⁵ This possibility is brought by the term, "further technical effect", which goes beyond the 'normal' physical interactions between programs. Computer programs in digital databases have this further technical effect which produces the main use of digital databases, namely, to enhance the value and/or usefulness of data. Data needs to be handled in a specific, skilful way in order to produce this value and/or usefulness from the raw data in databases.

²¹³ Decision - T 1173/97 at 8.

²¹⁴ *AT&T/Computer system*, T204/93, Technical Boards of Appeal 3.5.1[2001] EPOR 39 at para 3.13.

²¹⁵ *IBM/Computer Program Product T1173/97* [1999] OJEP 609; *Astron Clinica Limited and others* [2008] EWHC 85 (Pat) at para 13.

3.9. Utility patents²¹⁶

The practices of the US Patent and Trademark Office, the UK and the EPO are different. In the US, utility models are only common in international filings, such as in Patent Cooperation Treaty applications. This filing process does not only apply for patents but for other available ways of protecting inventions, including utility models. However, in 1995 the European Commission made a declaration in favour of utility patents. In contrast, “the US does not and never did offer protection for inventions in the form of utility models under its intellectual property laws”.²¹⁷ UK does not have a utility model protection and the majority of the EU members²¹⁸ were against the utility model protection proposal brought to the EU.²¹⁹

Initially, the utility model patent system was established as an independent system to promote and protect small inventions that were not covered by patents.²²⁰ Having considered a patent, to be protected by a utility model, an invention must be new, must involve an inventive step and should lend itself to

²¹⁶ “Various terms such as utility innovations, utility certificates, innovation patents, utility solutions and short-term patents may be used in different countries”. HP Brack, ‘Utility Models and their Comparison with Patents and Implications for the US Intellectual Property Law System’ [2009] BCIP TF 102701 at 02.

²¹⁷ HP Brack, *ibid.*, at 09.

²¹⁸ “EU member States such as Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, [Germany], Greece, Hungary, Ireland, Italy, the Netherlands, Poland, Portugal, Slovakia, and Spain; offer some form of utility model protection”. HP Brack, ‘Utility Models and their Comparison with Patents and Implications for the US Intellectual Property Law System’ [2009] BCIP TF 102701 at 02.

²¹⁹ Commission of the European Communities, ‘Proposal for a European Parliament and Council Directive approximating the legal arrangements for the protection of inventions by utility model’ COM (97) 691 final, and Amended proposal, COM (99) 309 final.

²²⁰ G Segade, ‘Utility models - lost in translation’ [2008] IRIPCL 135.

industrial application.²²¹ A utility patent protects the way an invention is used and works and may be granted to anyone who invents a new and useful method, process, machine, device, manufactured item, or chemical compound or any new and useful improvement to the same.

3.9.1. Way that the utility patent fits into the proposed system

The utility model patent application process is quicker than the standard patent.²²² Therefore, utility model patent can be obtained in well advance. This could be an extra protection against the infringement of a third party. Protections in this nature against infringement defends the investment²²³ and helps to attract investment into the digital databases field. Hence, this thesis expects to examine the utility patent.

Manipulation of information in a digital database is a technical process which is done by the computer program of the particular database. Manipulation of information brings value and/or usefulness to the information in a digital database, and this relates to the effectiveness of the use of a digital database. The computer program in a digital database increases the product's usefulness by making it more effective and easier to use.²²⁴

²²¹ G Segade, *ibid.*

²²² World Intellectual Property Organization, 'Protecting Innovations by Utility Models' (Internet) <http://www.wipo.int/sme/en/ip_business/utility_models/utility_models.htm> accessed 1 July 2013.

²²³ See Chapter 1 at 1.6.2. Link between protection and investment.

²²⁴ Conley *et al.*, 'Database Protection in a Digital World' at para 13.

As far as costs are concerned, patent litigation is extremely expensive.²²⁵ In contrast, the utility model is provided rapidly and cheaply as it does not depend on the basic conditions of novelty and inventiveness. Rapid processing reduces the amount of time taken which subsequently limits unnecessary costs. This is one of the efficient aspects of a utility model. In the commercial sphere this fact is an attractive one for the investor as it reduces the cost of the infrastructure.

In telecommunications²²⁶ and information technology fields where most of these databases are being developed and used is fast moving so that applying for standard patents might not be practical. Utility models, with their shorter application time could provide an acceptable level of protection in the rapid moving environment, accelerated further by the Internet.

One of the main issues with the patentability of computer programs is the technical nature of the program. Utility model patents are able to avoid such an issue. Even though some cases such as T1173/97 IBM/computer programs,²²⁷ have confirmed the technical nature of the computer program, the generation of a technical effect by the computer programs is a random event. Anything which contains technical features cannot be excluded from patentability. The possibility of granting patent protection for the computer programs could be explored based on the function of a utility model patent. Therefore it can be said that utility model patent are effective as invention patents. Koo states that:

²²⁵ Carr, R Arnold, *Computer software: Legal protection in the United Kingdom* 14.

²²⁶ Fayyad *et al.*, 'From data mining to knowledge discovery in databases' at 39; Piatetsky-Shapiro *et al.*, 'An Overview of Issues in Developing Industrial Data Mining and Knowledge Discovery Applications' at 93.

²²⁷ [1999] EPOR 301.

“[I]n the sense that programs are machines, and that writing programs is an industrial compilation of sub-components which is similar to the design of physical machines, software can be regarded as a device having *virtual* shape. In this respect, it is worthwhile to develop the utility model system for the protection of an aspect of software”.²²⁸

The utility model patent system will play an important role in filling the gap in Sri Lankan law for promoting inventions in the digital database field and for encouraging engagement in all sectors. This kind of patent system with a broad scope will help in finding encouragement for involving new researches and innovations. This observation can be linked to the point made in the proposal for a European Parliament and Council Directive approximating the legal arrangements for the protection of inventions by utility models: “utility model protection will constitute, for innovative firms, an incentive to maintain, or even increase, their investment in research and development”.²²⁹ In relation to the field of database development, these advantages may encourage the inventiveness in computer programs in digital databases and the creation of more digital databases.

The proposed mechanism put forward in this thesis also includes using the existing patent enforcement mechanism with acceptable steps like research and education exemptions. These steps help to enhance the dissemination of knowledge.²³⁰ For administrative ease, the existing Sri Lankan adjudicating authority under the existing IP Act of 36/2003 can be used for utility models as

²²⁸ Koo, ‘Patent and copyright protection of computer programs’ at 209.

²²⁹ Commission of the European Communities, ‘Proposal for a European Parliament and Council Directive approximating the legal arrangements for the protection of inventions by utility model’ COM (99) 309 final, at 49.

²³⁰ COM (99) 309 final at 49.

well. Further, for its smooth functioning the adjudicating authority should have power to grant compensations.

3.10. Infringement

Under the legal provisions of the EPC 2000, European patents are granted by the EPO. However, enforcement of European patents is decided at national level.²³¹ Patent protection is attached to the territory where it functions and, therefore, its infringement is only possible within that territory.²³² The EPC only covers the grant of a patent and not infringement. However, the proposed unitary patent/EU patent²³³ has validity in all participating states and enforcement throughout the territory of the participating member states.²³⁴ Therefore, the enforcement of patent decisions at a national level makes it easy to establish a self-protection mechanism. This section will examine the two main areas of patent infringement: direct and indirect infringements. In so doing, the thesis expects to provide a guidance pertaining to resolving the impediments that may be arisen in implementing the proposed digital database systems, due to the aforesaid infringement.

²³¹ EPC 2000, art. 64 (3).

²³² EPC 2000, art. 64 (3); Patents Act 1977/UK, s 60(1).

²³³ See *inter alia* KP Mahne, 'A Unitary Patent and Unified Patent Court for the European Union: An Analysis of Europe's Long Standing Attempt to Create a Supranational Patent System' (2012) 94/2 JPTOS 162.

²³⁴ Commission of the European Communities , 'Proposal for a Regulation of the European Parliament and of the Council implementing enhanced cooperation in the area of the creation of unitary patent protection' COM (2011) 215 final.

3.10.1. *Direct infringement*

The proposed system only allows for infringement proceedings done during the life of the computer program patent. In between the dates, the patent application is published and at the end of its term, action can be taken by the proprietor²³⁵ of the patent of the computer program in a database or the co-proprietors²³⁶ or the exclusive licensees.²³⁷ Direct infringement is an infringement by making copies from an existing computer program which is used in another digital database. The problem arises when the computer program is modified according to the third party database and be used the same. The argument behind this was examined by the House of Lords in *United Wire Ltd v Screen Repair Services (Scotland) Ltd.*²³⁸ Defendants in this case argued that their action merely involved repairing the product and not making it and, therefore, fell outside the scope of Section 60(1) of the Patents Act 1977.²³⁹ Lord Templeman and Lord Hoffmann pointed out that a genuine repair does not amount to an infringing act²⁴⁰ but this activity went far beyond that. Therefore, it was equivalent to reproducing an infringing assembly. This shows the distinction between the term 'repair' and 'make'. Infringement of patent

²³⁵ Patents Act 1977/UK, s 69.

²³⁶ Patents Act 1977/UK, s 66.

²³⁷ Patents Act 1977/UK, s 67(1).

²³⁸ [2001] RPC 24.

²³⁹ "60(1) Subject to the provisions of this section, a person infringes a patent for an invention if, but only if, while the patent is in force, he does any of the following things in the United Kingdom in relation to the invention without the consent of the proprietor of the patent that is to say-

(a) where the invention is a product, he makes, disposes of, offers to dispose of, uses or imports the product or keeps it whether for disposal of otherwise..."

²⁴⁰ *United Wire Ltd v Screen Repair Services (Scotland) Ltd* [2001] RPC 24 at 450.

protection of computer programs under this proposed system, therefore, depends on the burden of proof of the act of repairing or making.

All direct infringement in computer program depends on the way a claim is made. There are two types of claims relating to patents in computer programs: method claims²⁴¹ and machine claims.²⁴² In both, the computer program must be loaded into the computer before a direct infringement occurs.²⁴³ In digital databases, computer programs have already been loaded onto the computer as otherwise it is impossible to carry out the digital functions such as enhancing the value and/or usefulness of data in data content.

3.10.2. Indirect infringement

When no direct infringement has occurred, a plaintiff may nonetheless be able to allege a cause of action for contributory infringement under Section 60(2) of UK Patents Act 1977 and Section 271(c) of the US Patents Act 1952.²⁴⁴ The infringing act, in this situation, is the sale of the 'component' of the patented machine or the 'material or apparatus' used in the patented method.²⁴⁵ Having considered this situation with computer programs in digital databases, the specific component of a particular program is specifically designed for the

²⁴¹ *Diamond v Diehr* 450 US 175 (1981).

²⁴² *Diamond v Bradley* 450 US 381 (1981).

²⁴³ WL Anthony, Jr. RC Colwell, 'Litigating the Validity and Infringement of Software Patents'(1984) 41/4 WLLR 1307 at 1329 [hereafter Anthony *et al.*, 'Litigating the Validity and Infringement of Software Patents'].

²⁴⁴ United States Code Title 35 - Patents - US Patents Act 1952 (as amended).

²⁴⁵ Anthony *et al.*, 'Litigating the Validity and Infringement of Software Patents' at 1331.

functions of the database and the sale of it can be identified as an indirect infringement.

This basis can be argued with the UK case of *Menashe Business Mercantile Ltd and another v William Hill Organisation Ltd*.²⁴⁶ The defendants supplied computer programs to users (punters) in the UK which enabled them to gain Internet access to a gaming system held on a host computer located in Netherlands Antilles. The defendants denied infringement since the defendants' system fell within the patent held for their own gaming system and constituted infringement under Section 60(2) of the Patents Act 1977, on the ground that an essential element of their system, the host computer, was situated outside the UK. The Court held that "the fact that the host computer is outside the United Kingdom does not mean that the invention is not put into effect in the United Kingdom".²⁴⁷ Therefore, the providing the CDs, in this case customers received computer programs, usually by CDs which provided authority to communicate between the host computer and customers' home computers, as intended to put the invention into effect in the UK and the patent was infringed.²⁴⁸ After the computer programs are especially designed for the particular databases, they cannot be sold to third parties within the country or outside. On line digital databases are part of the Internet and the patent protection of computer programs of them can be challenged by indirect infringement. Therefore, this thesis suggests that the decisions on the infringement should be taken in

²⁴⁶ [2003] 1 WLR 1462, [2002] EWCA Civ 1702.

²⁴⁷ *Menashe Business Mercantile* [2002] EWCA Civ 1702 at para 14.

²⁴⁸ *Menashe Business Mercantile*, *ibid.*, at paras 3, 13, 21, 33.

accordance with the patent law of the country where the particular databases are functioning.

3.11. Concluding comments

By examining the basic engineering of digital databases,²⁴⁹ this Chapter has attempted to analyse the availability of patent protection for computer programs in digital databases. This research has identified the computer program which manipulates or evaluates the data in digital databases as a specific component which enhances the value and/or usefulness of information in a database. This function, the development of the value and/or usefulness of information in a digital database, is a specific feature and the program itself is specially designed for the particular database. Therefore, this proposed system provides a separate mechanism for the protection of computer programs and appears stronger when compared with copyright protection. Patent protection is expressed in broad terms, describing the overall organization or function of a computer program, as this patent protection of computer programs specifically depends on its functions.²⁵⁰

This proposed mechanism addresses the need to make investment in the digital market in Sri Lanka an attractive proposition for investors. Patent protection is more useful in economic terms, in the sense that it is profit-oriented, despite the difficulties in actually obtaining a patent.

²⁴⁹ See this Chapter at 3.3. The nature of a computer program and its relevance to the proposed system.

²⁵⁰ *Diamond v Diehr* 450 US 175 (1981); *Paine, Webber, Jackson & Curtis, Inc. v Merrill Lynch, Pierce, Fenner & Smith, Inc.* 564 F. Supp. 1358 (D.Del. 1983); *Matter of Application of Bradley* 600 F.2d 807 (CCPA 1979).

The thesis identifies the weaknesses with patent protection such as cost, delay and publication, which results in investors being required to take extra effort to maintain patent protection. The cost, delay and expenses in publication make patent protection an expensive tool. In relation to the cost, the EU experience demonstrates that the cost of translation is a key reason for the high costs in obtaining a patent.²⁵¹ However, this is not an issue for the Sri Lankan patent protection system since there is the possibility of using English as the “link” language.²⁵² This means that the English version of the patent description would be enough for both the Sinhala and Tamil speaking population.²⁵³ The thesis’ proposed system is a national patent system and therefore the English version of the patent description would be the least problematic and cost effective solution in relation to the concern of the translation cost.

Another weakness of patent protection is delay. However, this is tied to various issues which are concerned with administrative or courts’ processes. Reid observes that:

“Sometimes it stems from the opportunities court systems give to litigants to exploit procedures either simply to cause delay or to hide from each other the true nature of their respective cases. Such delay wastes time and money, since the parties prepare arguments and evidence on unnecessary points.”²⁵⁴

In this regard, having considered the Sri Lankan practical situation in administrative and courts’ process, the thesis puts forward suggestions to

²⁵¹ JM Reid, ‘Views of industry on requirements for adequate and effective patent protection in Europe’ (1996) 27/2 IRIPCL 214 at 214.

²⁵² “English shall be the link language”. Constitution of Sri Lanka 1978, art. 18(3).

²⁵³ The official languages of Sri Lanka shall be Sinhala and Tamil while English shall be the link language. Constitution of Sri Lanka 1978, arts. 18 (1), (2), (3).

²⁵⁴ JM Reid, *supra* n.251 at 215.

improve the administrative and court processes. As it has been suggested previously in this Chapter,²⁵⁵ Sri Lankan patent protection system would be able to provide a less cost effective forum for patents enforcement, like in the UK - Patents County Court.²⁵⁶ The thesis suggests reforms for the domestic institutions and new institutions. Further clarifications in this regard can be found from the Chapter 7 below.²⁵⁷ Apart from those clarifications, the thesis suggests introducing a low cost patent system tailored according to the applicants needs and to increase the accessibility of availability of patent information.²⁵⁸

The publication makes extra cost on patent protection. The thesis suggests publication should occur along with the application or immediately after the grant. This practice reduces the cost on unnecessary publications. The practical example can be seen from the European patent system. As the European Patent Office indicated in their report on 'Proposals to reduce costs-1996' the cost has been reduced from DEM15400 to DEM2700 if the applicant follows the above mentioned proceedings.²⁵⁹ The thesis further suggests submitting the application with an enhanced abstract in English. This helps the reduction of the cost on language deficiencies and cost on patent proceedings.

²⁵⁵ See this Chapter at 3.6. Rationale for patent protection of computer programs in digital databases.

²⁵⁶ D Llewelyn, WR Cornish, 'The enforcement of patents in the United Kingdom' (2000) 31/6 IRIPCL 627 at 628-630.

²⁵⁷ See Chapter 7 at 7.7. Existing stakeholders and 7.10. Reforms to domestic institutions and new institutions.

²⁵⁸ C Tootal, 'The European patent system: time for a review?' (1995) 17/9 EIPR 415 at 415.

²⁵⁹ "It is assumed that a saving of 80% of the current [DEM]800 million per year in total validation costs could be achieved. European industry is estimated to bear 60% of these costs at present, compared to US applicants with 24% and Japanese applicants with 15%". European Patent Office, 'Proposals to reduce costs' (1996) 27/3 IRIPCL 416 at 417. [This proposal provides all figures in Deutsche Mark - German Mark/DEM].

Hilty and Geiger states that: “[t]he mere risk of infringement, together with the associated costs, might be an important deterrent to the majority of creators, especially individual programmers and SMEs, who do not have the financial means to handle such difficulties”.²⁶⁰ Therefore, a system concerned with costs should further address the issue of mere risk of infringement which creates extra cost over investors.

There is a remarkable difference between the concepts of standard of inventiveness comes under the patentability and the originality dealt under the copyright law.²⁶¹ The requirement of standard of inventiveness demonstrates the investment beneath the computer programs. Therefore, the thesis focuses on the standard of inventiveness as the same helps to identify the investment in computer programs of digital databases. However, programs which demonstrate little creativity will probably not be sufficiently inventive to meet patentability requirements. Therefore, the computer programs in digital databases which do not meet the creativity requirement are left without protection. If this is the case, this proposal suggests the utility model patent.²⁶² When compared to general patent protection, utility model patents provide sufficient protection for computer programs in digital databases as they help to overcome the defects of general patent requirements.²⁶³ Further, this proposed

²⁶⁰ RM Hilty, C Geiger, ‘Patenting software? A judicial and socio economic analysis’ (2005) 36/6 IRIPCL 615 at 633-634.

²⁶¹ LJ Raskind, ‘The uncertain case for Special Legislation Protecting Computer Software’ (1985-1986) 47 UPLR 1131 at 1145.

²⁶² See this Chapter at 3.9. Utility Patents.

²⁶³ Koo, ‘Patent and copyright protection of computer programs’ at 209; See this Chapter at 3.9.1. Way that the utility patent fits into the proposed system.

system identifies the computer program in a digital database as a separate issue to other computer programs in the field for which the utility model patent would provide a solution.

Chapter 2 outlined the copyright protection of digital databases with special attention given to the content of the database. In so doing, it examined the copyright protection of computer programs in digital databases.²⁶⁴ Findings of this examination concluded that there may be a place for patent protection in computer programs. This Chapter builds upon this and discusses the benefits of patent protection for computer programs as a way of attracting investment. The next Chapter will examine how contract protection could attract investors to the Sri Lankan digital database arena.

²⁶⁴ See Chapter 2 at 2.4. The underlying computer program - issues of originality and 2.5. Authorship of the underlying computer program.

CHAPTER 4

CONTRACT

4.1. Introduction

This Chapter examines the arguments concerning the applicability of contract protection for digital databases. The aim of this Chapter is to discuss the role of contracts in database protection and how they relate to the proposed digital database protection mechanism for Sri Lanka. The primary object of this protection is to protect investment in digital databases.¹ Database owners anticipate return or profit on his investment. At a different stages in setting up and maintaining a database, a database owner is required to contract with different stake holders of the database. These parties may be different service suppliers of databases, other database owners or end-users. Therefore a contract is a sophisticated tool which can be utilised to ensure the protection of investment in digital databases.

This thesis has examined two main notions in relation to the protection of digital databases in order to attract investment to the Sri Lankan digital database arena. As examined in earlier Chapters, copyright protects content while patents protect the computer programs of the digital databases and this ties in with the proposed system outlined in this thesis. Contracts provide protection to goods and services in the digital databases market. Kessler examines the development of contracts into their current form:

¹ See Chapter 1 at 1.6. The role of investment in database protection.

“With the development of a free enterprise system based on an unheard of division of labor, capitalistic society needed a highly elastic legal institution to safeguard the exchange of goods and services on the market. Common law lawyers, responding to this social need, transformed ‘contract’ from the clumsy institution that it was in the sixteenth century into a tool of almost unlimited usefulness and pliability. Contract thus became the indispensable instrument of the enterpriser, enabling him to go about his affairs in a rational way”.²

Contract is another form of protection for digital databases in order to achieve the purpose of providing protection to investment. Providing protection for investment helps to attract further investment.³ Protection of investment is also one of the purposes of the Database Directive.⁴ Article 13 of the Database Directive provides contractual protection in addition to the *sui generis* right protection and both serve the purpose of protecting investment. This thesis is in favour of both types of protection in line with the idea of having a bundle of protection mechanisms.⁵

Digital databases are a multibillion dollar industry which has seen a huge financial investment in compilation, maintenance and marketing.⁶ This industry needs to be protected in order to protect existing investments and attract future investments.⁷ Contract, legal structure and unfair competition laws provide an

² F Kessler, ‘Contracts of Adhesion-Some Thoughts about Freedom of Contract’ (July 1943) 43/5 CLR 629 at 629.

³ See Chapter 1 at 1.6. The role of investment in database protection.

⁴ Council Directive 96/9 EC (OJ L 077/20), recital 39 and art. 7.

⁵ JH Reichman, PF Uhler, ‘Database Protection at The Crossroads: Recent Developments and their Impact on Science and Technology’ (1999) 14 BTLJ 793 at 799.

⁶ Tessensohn, ‘The Devil’s in the Details’ at 453; V Bange, J Sumpster, ‘Databases: treasure or curse?’ (2009) 4/9 WCRR 34; Pattison, ‘The European Commission’s Proposal on the Protection of Computer Databases’ at 113.

⁷ See Chapter 1 at 1.6.2. Link between protection and investment.

acceptable level of protection for investments in digital databases.⁸ The contractual legal structure protects 'online databases'⁹ despite any failure in the meeting of the minds. The meeting of the minds or *consensus ad idem* is the binding force of the contract.¹⁰ A contract is an agreement that refers to the meeting of the minds,¹¹ which describes the intentions of contracting parties to form a contract or their common understanding in forming a contract. Reichman and Uhler note that "[d]igital telecommunications networks, [for example] enable publishers to control the uses of information goods directly by contract, without relying on state action to avoid market failure, for the first time since the advent of the Guttenberg printing press".¹² Therefore, it seems clear that contractual protection of digital databases provides substantial protection for digital information in the information technology economies.

The existing protection mechanisms for databases consist of contracts alongside other rules such as copyright, unfair competition and misappropriation and the *sui generis* right protection.¹³ In the existing protection mechanism,

⁸ Tessensohn, 'The Devil's in the Details' at 453.

⁹ Bouganim, 'The Legal Protection of Databases from Copyright to Dataright' at 38.

¹⁰ *Patrick McOscar v Brendan Loughran* [2012] NIQB 40, 2012 WL 2500421 at para 15 (per McCloskey J).

¹¹ "According to the classical view, the law of contract gives expression to and protects the will of the parties, for the will is some-thing inherently worthy of respect. Hence such authorities as Savigny, Windscheid, Pothier, Planiol, Pollock, Salmond, and Lang-dell hold that the first essential of a contract is the agreement of wills, or the meeting of minds." MR Cohen, 'The Basis of Contract' (February 1933) 46/4 HLR 553 at 575.

¹² JH Reichman, PF Uhler, 'Database Protection at The Crossroads: Recent Developments and their Impact on Science and Technology' (1999) 14 BTLJ 793 at 796; WJ Gordon, 'Asymmetric Market Failure and Prisoner's Dilemma in Intellectual Property' (1992) 17 UDLR 853.

¹³ In the EU - The Council Directive 96/9 EC (OJ L 077/20), art. 13; In the US -17 USC § 101 and National Academy of Sciences, *A Question of Balance: Private Rights and the Public Interest in Scientific and Technical Databases* (National Academy of Sciences, Washington DC 1999) 58-59; In UK- CDPA 1988, s 29(1) and C Waelde, M McGinley, 'Public Domain;

contractual protection works as an access control system, as a gate lock, i.e., as a way of using contracts to protect digital databases at the point of access. User names and passwords can be identified as gate locks. These access control systems categorise database users according to their demand for data in digital databases. This categorisation enables them to make different pricing policies for different users. This helps to maximise the profits on investments in digital databases.¹⁴ While contracts enjoy a wide range of positive effects/advantages, some negative effects/disadvantages can also be identified in terms of digital databases. These will be examined in this Chapter. For example, establishing the 'meeting of the minds' in standard form contracts/adhesion contracts is a problematic issue because of the higher bargaining power of the online database owner and the lack of bargaining power of the online database user. Another negative effect/disadvantage is that "contract terms and conditions are only effective between the contracting parties and not binding on third parties who may get access to the database".¹⁵ When contracting parties release data to third parties then it is difficult and sometimes impossible to enforce contractual terms and conditions against those third parties. From the examination of these negative effects/disadvantages, this Chapter will identify connections and comparisons with other available protection mechanisms for databases.

Public Interest; Public Funding: focussing on the 'three Ps' in scientific research' (2005) 2/1 SCRIPT 71 at 90.

¹⁴ Davison, *The Legal Protection of Databases* 40.

¹⁵ National Academy of Sciences, *A Question of Balance: Private Rights and the Public Interest in Scientific and Technical Databases* (National Academy of Sciences 1999) 61; See *inter alia* R Merkin (ed), *Privity of Contract* (LLP 2000).

This Chapter will conclude by suggesting that contract protection can be included as part of a bundle of protection mechanisms in digital databases. The proposed contractual protection focuses on the economic advantages of contract protection. The purpose of this exercise is to protect the investment in digital databases in order to attract further investment in digital databases in Sri Lanka.

4.1.1. Identification of the contracts under the thesis

Depending on whether it is a multiple source or a sole/single source database, legitimate database users are considered as database users who are dependent on contract, but this does not necessarily mean a contract between a right holder and end user/s at all levels.¹⁶ Derclaye states that:

“The first database producer to make such a database will face (at least potential) competition. Knowing [he/] she might face competition, [he/] she will not include terms in [his/] her contracts which unduly restrict access to data. Similarly, [he/] she will not charge a price above the cost of the investment and reasonable return or profit which amounts to the same investment and profit that anyone needs to make to market the same base”.¹⁷

In absence of a contract or licence agreement to provide data, data users tend to use data from another database without being subject to any obligation. Therefore, contract or licence agreement formalizes the relationship between database owner and user and at the same time provides possibility of earning return or profit upon the investment since the database has commercial concerns.

¹⁶ V Vanovermeire, ‘The concept of the lawful user in the Database Directive’ (2000) 31/1 IRIPCL 63 at 72.

¹⁷ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 178.

In sole/single source databases, owners have economic and legal monopoly. User/s cannot find data from elsewhere and this situation forces user/s to deal with sole source database producer.¹⁸ In such events there it can be complementary for the database users and owners to enter into an appropriate contract. However, discussion of sole/single source databases raises the issue of interpretation of the notion of substantive investment.

“The Database Directive does not offer much guidance in interpreting the notion of ‘substantial investment’. It does not clarify how much ‘blood, sweat and tears’ the database producer must shed in order to qualify for sui generis protection. Nor is it clear which ‘investments’ may, or may not, be taken into account when answering this question. This is especially problematic in cases dealing with databases that are generated as by-products (so called ‘spin-offs’) of services offered to the public under a (quasi) monopoly”.¹⁹

The detailed discussion on the topic of the notion of substantive investment can be found from the Chapter 6 below.²⁰ Database owners expect returns or profits for substantive investment and hence contract with different parties such as other database owners or database users. The thesis does not apply different principles to each of these classes of contract and the applicability of the contract protection can be found in Chapter 7 at 7.9, with particular regard to the case studies regarding the proposed system.²¹

¹⁸ Derclaye, *ibid.*, 179.

¹⁹ B Hugenholtz, ‘Abuse of Database Right: Right Sole-source information banks under the EU Database Directive’ in F Leveque and H Shelanski (eds), *Antitrust, patents and Copyright: EU and US perspectives* (Edward Elgar 2005) 207.

²⁰ See Chapter 6 at 6.3. Substantial investment.

²¹ See Chapter 7 at 7.9.3.Contract case study.

4.2. Standard Form / Adhesion contracts

Derclaye observes that “[d]atabase producers can protect their databases by fully negotiated contracts (or contracts at arm’s length) or by adhesion (or standard form) contracts”.²² However this thesis deviates from this observation. The reason for this deviation comes from the notion of ‘bargaining power’²³ in the fully negotiated contracts and standard form/adhesion contracts. In the fully negotiated contracts, parties have equal bargaining power. Rubin notes that:

“In fully negotiated contracts, the parties focus on each term as it is negotiated. A buyer is likely to demand information from the seller in the course of the negotiation; if the information is not provided, or is deemed unreliable, the buyer may then negotiate a supplementary term to avoid the effects of the asymmetry, such as a warranty, covenant or liquidated damage clause. Alternatively, the buyer may demand something, such as adjustment in the price, to compensate for the risks that the asymmetry creates for it”.²⁴

However, this situation is different in standard form/adhesion contracts.²⁵ In these cases, there is no equal bargaining power for the contractual parties.²⁶ Unequal bargaining power means that there is no meeting of the minds. As noted above, the existence of equal bargaining power is the theme of this contractual protection over the proposed system. Therefore, this thesis tries to keep the notion of meeting of the minds even in standard form/adhesion

²² Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 174.

²³ *Macaulay v Schroeder Publishing Co Ltd*, [1974] 1 WLR 1308 (HL); *Lloyd's Bank Ltd. v Herbert James Bundy* [1974] 3 All ER 757 (per Denning LJ); P Slayton, ‘The Unequal Bargain Doctrine: Lord Denning in *Lloyds Bank v. Bundy*’ (1976) 22 MLJ 94.

²⁴ EL Rubin, ‘Types of Contracts, Interventions of Law’ (1999-2000) 45 WLR 1903 at 1915.

²⁵ JJA Burke, ‘Contract as Commodity: A Nonfiction Approach’ (1999-2000) 24 SHLJ 285 at 288 [hereafter Burke, ‘Contract as Commodity: A Nonfiction Approach’]; HB Sales, ‘Standard Form Contracts’ (July 1953) 16/3 MLR 318.

²⁶ EL Rubin, *supra* n.24, at 1914-1915.

contracts where the online digital databases can easily be seen.²⁷ In so doing, the thesis proposes the notion of a digital meeting of the minds as a part of contract protection in digital databases. This will be explained after the examination of the meeting of the minds which provides the basis for the discussion on standard form/adhesion contracts and the notion of a digital meeting of the minds.

Online digital database contracts are similar to standard form/adhesion contracts except that standard form/adhesion contracts can be seen in both paper and digital media.²⁸ A definition of adhesion contracts is given in the US case *Craig Comb, et al. v. PayPal, Inc.*: “[a] contract of adhesion, in turn, is a standardized contract, which, imposed and drafted by the party of superior bargaining strength, relegates to the subscribing party only the opportunity to adhere to the contract or reject it”.²⁹ Essentially, it is a take-it or leave-it type of contract. Most intellectual products are sold in this form of contract and they have been variously termed shrink-wrap (for off-line products),³⁰ click-wrap,³¹ click-on (in digital telecommunication environment),³² browse-wrap³³ or

²⁷ RA Hillman, JJ Rachlinski, ‘Standard-Form Contracting in the Electronic Age’ (2002) 77 NYULR 429 at 429, 471; *ProCD v Zeidenberg* 86 F.3d 1447 (7th Cir. 1996).

²⁸ Burke, ‘Contract as Commodity: A Nonfiction Approach’ at 289.

²⁹ 218 F. Supp. 2d 1165 (ND Cal. 2002) at 1172; *Armendariz v Foundation Health Psychcare Serv.* 24 Cal. 4th 83 (2000); *Flores v Transamerica HomeFirst, Inc.*, 93 Cal.App.4th 846 (2001).

³⁰ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 175.

³¹ LE Trakman, ‘The boundaries of contract law in Cyberspace’ [2009] IBLJ 159 at 159.

³² J Reichman, J Franklin, ‘Privately Legislated Intellectual Property Rights: Reconciling Freedom of Contract with Public Good Uses of Information’ (1999) 147 UPLR 875 at 876 footnote 1 [hereafter Reichman, J Franklin, ‘Privately Legislated Intellectual Property Rights: Reconciling Freedom of Contract with Public Good Uses of Information’].

³³ “A browse-wrap contract is distinguishable from a click-wrap contract in that, in the former, the terms of the agreements do not appear on the screen and the user is not compelled to

click-through (for online products).³⁴ Under these agreements, the end user has to click the given place or box in order to consume the product or to use the service.

In summary, databases can be protected by fully negotiated or standard form/adhesion contracts. The fully negotiated contract does not create the issue of meeting of the minds (with compare to standard form/adhesion contract), but a standard form/adhesion contract does. Therefore, examination of standard form/adhesion contracts paves the way for the examination of the notion of meeting of the minds. These background examinations provide the basis for the proposed notion of digital meeting of the minds in this thesis.

4.2.1. Meeting of the minds (*consensus ad idem*)

In *Household Fire and Carriage Accident Insurance Company (Limited) v Grant*,³⁵ both Thesiger J and Baggallay J agreed that the completion of a contract depended on the transmission of acceptance which confirms that there is the principle of meeting of the minds. Therefore, a contract is considered valid through the presence of offer and acceptance³⁶ that shows that there has been a meeting of the minds. This shows the relationship between meeting of the minds and offer and acceptance. The courts try to pinpoint the principle of

accept or reject the terms before being able to proceed further. The browse-wrap agreement appears as a hyperlink to which the user gains access by clicking on the link which is an option, but not required". LE Trakman, 'The boundaries of contract law in Cyberspace' [2009] IBLJ 159 at 159, 171.

³⁴ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 175.

³⁵ (1878–79) LR 4 Ex D 216.

³⁶ *Ingram v Little* [1961] 1 QB 31 at 64 (per Devlin J).

meeting of the minds through the words of the contract and behaviour, which may be a 'word or conduct'³⁷ of the parties.³⁸ The words of the contract and behaviour of the parties should imply that the parties intended to create legal relationship that would allow them to form a legally binding relationship.³⁹

It has already been outlined that if the proposed system were to be adopted the concept of meeting of the minds would be the theme of its contract protection mechanism. This thesis respects the concept of meeting of the minds because it is the basis of the agreement.⁴⁰ The agreement is the basis of a contract.⁴¹ A standard form/adhesion contract allows for an examination of the notion of meeting of the minds. Adhesion contracts/standard form contracts themselves do not denote the meeting of the minds. An examination of the meeting of the minds shows the need to provide a solution for the failure of providing the basis of a contract, i.e. meeting of the minds, in online digital contracts. Online digital contracts govern the legality of the digital database contract between the database owner or author and the user/s. Some time these digital contracts can be observed between different database owners which being set up for the purposes of data/information sharing.

³⁷ *Mathieson Gee (Ayrshire) Ltd v Quigley* 1952 SC (HL) 38; *Lucy v Zehmer*, 196 Va. 493, 84 SE 2d 516(1954); *Brogden v Metropolitan Railway Co.* (1877) 2 App. Cas 666.

³⁸ *RTS Flexible System Ltd v Molkerei Alois Muller GmbH & Co (UK Production)* [2010] UKSC 14 at para 45 (per Clarke LJ).

³⁹ *RTS Flexible System Ltd, ibid.*, at para 45 (per Clarke LJ).

⁴⁰ MR Cohen, 'The Basis of Contract' (February 1933) 46/4 HLR 553 at 562, 575.

⁴¹ *Great Peace Shipping Ltd v Tsavliris Salvage (International) Ltd* [2002] EWCA Civ 1407 at para 28 (per Phillips LJ).

4.2.2. Digital meeting of the minds

A contract is an agreement⁴² that confirms the meeting of the minds of the parties to the agreement. Both parties should have free bargaining power in order to be contracted.⁴³ The possibility of negotiation⁴⁴ and the availability of meaningful alternatives,⁴⁵ provides free bargaining power over the contracted parties. Superior bargaining power of one party puts pressure on the weaker party to be part of a contract that is unfair and cannot be legally justified.⁴⁶ Online digital database contracts create take-it or leave-it type contracts, which could be considered as standard form/adhesion contracts.⁴⁷ In these contracts, especially in digital contracts, clicking on the “I agree” box indicates the consent of the user. Burke states that:

“Pretending that a party’s signature, or its equivalent, means consent ignores what everyone already knows. There is not one iota of consent to be found in most standard form contracts or license agreements whether a signature appears on the bottom of a written contract or the “I agree” button was depressed on a digital contract. Courts know that parties sign or manifest assent to standard form contracts that they have not read, understood or negotiated”.⁴⁸

⁴² *Great Peace Shipping Ltd, ibid.*

⁴³ F Kessler, ‘Contracts of Adhesion-Some Thoughts about Freedom of Contract’ (July 1943) 43/5 CLR 629 at 630.

⁴⁴ *Navellier v. Sletten* 262 F.3d 923, 940 (9th Cir. 2001).

⁴⁵ DD Barnhizer, ‘Inequality of Bargaining Power’ (2005) 76 UCLR 139 at 199 [hereafter Barnhizer, ‘Inequality of Bargaining Power’].

⁴⁶ *Schroeder Music Publishing Co Ltd v Macaulay* [1974] 1 WLR 1308 at 1316 (per Diplock LJ).

⁴⁷ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 175.

⁴⁸ Burke, ‘Contract as Commodity: A Nonfiction Approach’ at 299.

The courts' understanding shows that there is no equal bargaining power between the parties.⁴⁹ The issue of the bargaining power opens allows for the examination of whether this is an equal position of the contractual parties and their meeting of the minds. Barnhizer notes that “[s]pecifically, bargaining power issues can be observed in the contexts of contract defences, contract formation, contract interpretation, and contract remedies”.⁵⁰ The UK law is different on this point when compared to the US position. One of the green lights is found in the Lord Denning judgment in *Lloyd's Bank Ltd. v. Herbert James Bundy*.⁵¹ Lord Denning stated that:

“I would suggest that through all these instances there runs a single thread. They rest on ‘inequality of bargaining power’. By virtue of it, the English law gives relief to one who, without independent advice, enters into a contract or transfers property for a consideration which is grossly inadequate, when his bargaining power is grievously impaired by reason of his own needs or desires, or by his own ignorance or infirmity, coupled with undue influences or pressures brought to bear on him by or for the benefit of the other”.⁵²

“I put on one side contracts or transactions which are voidable for fraud or misrepresentation or mistake. All those are governed by settled principles. I go only to those where there has been inequality of bargaining power, such as to merit the intervention of the Court”.⁵³

However, Lord Denning's proposal was rejected by the English courts.⁵⁴ The US position “demonstrates a relationship between contract defences and the

⁴⁹ HB Sales, ‘Standard Form Contracts’ (July 1953) 16/3 MLR 318 at 318; *Palmolive Co. v Freedman* [1928] ChD 264 (CA).

⁵⁰ Barnhizer, ‘Inequality of Bargaining Power’ at 144.

⁵¹ [1974] EWCA Civ 8 [1975] QB 326.

⁵² *Lloyd's Bank Ltd, ibid.*, at 339.

⁵³ *Lloyd's Bank Ltd, ibid.*, at 337.

⁵⁴ *National Westminster Bank v Morgan* [1985] 1 All ER 821, 830 (HL), [1985] 2 WLR 588 (per Scarman LJ); Barnhizer, ‘Inequality of Bargaining Power’ at 145; 221

legal concept of inequality of bargaining power”.⁵⁵ This thesis respects this position as the basis of this Chapter which lies in the notion of a digital meeting of the minds. In online digital database contracts, the strength of the database owner misuses the user/s’ urgency on the use of the particular databases. These kinds of situations are voidable.⁵⁶ This thesis proposes that the digital meeting of the minds comes from the issue of equal bargaining power of the contractual parties in the digital database contract. The equality of bargaining power between the parties of online digital database contracts is invisible since the existence of superior bargaining power is with the digital database owner or author. The digital database owner or author decides the terms and conditions of the contract and the only option the user is left with is to take it or leave it.

This thesis proposes a notion of a digital meeting of the minds which provides the basis for equal bargaining power for both parties. Currently, the owner believes that users have to “accept the record without any amendment [or alteration], and without expecting the party to know or understand its terms”.⁵⁷ In contrast, the proposed solution provides an ability to alter or amend the terms and conditions of the online digital database and this minimises the strong bargaining power of the database owners and authors. This process provides

N Thal, ‘The Inequality of Bargaining Power Doctrine: The Problem of Defining Contractual Unfairness’ (1988) 8 OJLS 17 at 19.

⁵⁵ Barnhizer, *ibid.*, at 146.

⁵⁶ *Lloyd’s Bank Ltd. v Herbert James Bundy* [1974] EWCA Civ 8 [1975] QB 326 at 337 (per Denning LJ); *Maskell v Horner* (1915) 3 KB 106.

⁵⁷ Burke, ‘Contract as Commodity: A Nonfiction Approach’ at 288.

the parties with the ability to negotiate. In relation to the US experience⁵⁸ of unequal bargaining power in contracts, Barnhizer states that:

“[C]ourts rely upon (1) the absence of meaningful alternatives or some degree of ‘necessity,’ and (2) inability to negotiate or alter the terms of the proffered contract as evidence of inequality of bargaining power”.⁵⁹

This thesis proposes a new notion of a digital meeting of the minds in order to avoid aforesaid problems with online digital contracts. However the said approach will not lead to less investment in Sri Lankan databases, because this practice helps to attract more users to the digital databases. The flexibility of amending online digital contracts increases the popularity of digital databases. This notion provides the possibility of negotiation or alteration of the online digital contract. In this digital meeting of the minds process, the digital database author or owner has to provide a ‘click on’⁶⁰ box or place against each and every term and condition of the digital database contract, and provide another box or place to show the user’s disagreement with any particular term or condition. At the same time, the user can agree with the particular term or condition by clicking the box or place provided. If the user does not agree with the particular term or condition he or she is allowed to click on the provided box or place for disagreement. In this situation, the digital database opens up other possible terms and conditions against the user’s disagreed terms and conditions. These new terms and conditions also have a click on box or place

⁵⁸ *Northwest Acceptance Corp. v Altmont Gravel, Inc.* 412 NW 2d 719; *Tunkl v Regents of Univ. of Cal.* 383 P.2d 441 (Cal.1963) ; *Ryan v. Dan’s Food Stores* 972 P 2d 395, 403-04 (Utah 1998); *Ellis v McKinnon Broadcasting Co.* 23 Cal. Rptr. 2d 80, 83-85 (Cal. Ct. App., 1993); *Stirlen v Supercuts, Inc.* 60 Cal. Rptr. 2d 138, 145 (Cal. Ct. App. 1997).

⁵⁹ Barnhizer, ‘Inequality of Bargaining Power’ at 202.

⁶⁰ Davison, *The Legal Protection of Databases* 41.

provided. At the end of this process, both the digital database owner or author and the user have agreed to a new amended contract. This is the basic scenario of a digital meeting of the minds.

The below situation explains how the notion of the 'digital meeting of the minds' works. The following is an example of a condition in a digital database contract:

"If you are a UK customer you can get unlimited One-Day delivery at no extra cost"

The term 'UK customer' is unclear because the customer: (a) may permanently reside in UK but now wants to deliver his purchase to an address outside the UK; or (b) may have a billing address and delivery address in the UK, or (c) is a regular UK customer and now lives outside the UK, but seeks a discount as a regular customer. In order to avoid such confusions, a digital database owner or seller could include the following conditions in the digital contract as a part of digital amendment process:

"If you are a UK customer you can get unlimited One-Day delivery at no extra cost except in two circumstances, please mark the box that applies to you:

Our regular customers who wish to have their purchase delivered outside the

UK have to pay a 10% delivery charge: - yes / no

A UK customer, but not on our regular customer list

required to pay a 5% delivery charge - yes / no

A Regular UK customer with a UK delivery address

can get unlimited One-Day delivery at no extra cost - yes / no "

If a customer selects number 1, then the contractual condition is amended as “UK regular customer who seeks to deliver the purchase outside the UK, have to pay an extra 10% delivery charge”. If number 3, “Regular UK customer at UK delivery address can get unlimited One-Day delivery at no extra cost”. The automated final version is the contract which provides the terms and conditions between the seller and buyer. However, it should be noted that the authentication of this contract can be debatable. Arguably, the authenticity and trustworthiness of this contract are established at the point of click on the “I agree” box.⁶¹

“Digital signatures (standard electronic signatures) take the concept of traditional paper-based signing and turn it into an electronic ‘fingerprint’. This ‘fingerprint’, or coded message, is unique to both the document and the signer and binds both of them together. The digital signature ensures the authenticity of the signer. Any changes made to the document after it is signed invalidate the signature, thereby protecting against signature forgery and information tampering”.⁶²

As Mason suggests, electronic signature provides “the integrity of a message or document”⁶³ and authentication verifies the “validity and genuineness of a particular piece of information”.⁶⁴ Therefore, it is useful to note that the validity of the digital contracts depends on the authenticity and trustworthiness of the

⁶¹ S Mason, ‘Authenticating Digital Data’ in S Mason (ed), *Electronic Evidence* (3rd edn, LexisNexis 2012) at para 4.03; RJ Matthews, ‘Why authentication procedures matter for US and UK public legal resources on the web’ (2008) 8/1 LIM 35; *Moore v Microsoft Corp* 741 NYS 2d 91 (April 5, 2002).

⁶² OA Orifowomo, JO Agbana, ‘Manual signature and electronic signature: significance of forging a functional equivalence in electronic transactions’ (2013) 24/10 ICCLR 357 at 361.

⁶³ S Mason, *Electronic Signatures in Law* (3rd edn, Cambridge University Press 2012) 1.

⁶⁴ S Mason, *ibid.*, 1.

contract and evidence⁶⁵ provide to proof the authenticity and trustworthiness on demand or if challenged.

4.2.3. *In rem* and *in personam*

This thesis proposes a bundle of rights and mechanisms which include patent protection, unfair competition law and misappropriation, the *sui generis* rights, and protection by copyright and contract. The understanding of the basics of copyright and contract confirms the link between each right or mechanism of the proposed bundle of rights and mechanisms. An examination of the basics is based on the distinction and combination of the concepts of *in rem* and *in personam*. *In rem* refers to a kind of legal action directed towards property, rather than towards a particular person. *In rem* further decides rights in the property that are conclusive against the entire world. Real or personal property rights such as copyright may be addressed by the concept of *in rem*. *In personam* is directed towards a particular person and addresses the defendant's personal rights and interests in the particular person's property. The contract addresses the parties themselves and, therefore, the terms and conditions affect the particular parties while copyright is a right against the entire world. Therefore, copyright protection in digital databases is *in rem* while contract protection is based on *in personam*.

However, the aforementioned basis can be differentiated in some areas in modern electronic forms. As Griffin suggests, "with the Windows XP EULA, the *in personam* and *in rem* distinction between copyright and contract is breaking

⁶⁵ S Mason, *ibid.*, 314.

down, because the contract will apply to the majority, if not all, those who legitimately access the content. When a contract provides copyright style protection, it therefore has clear potential to undermine the copyright balance”.⁶⁶ However, there are some limits to copyright protection in the European Union. Most of these are set by the Directive on Copyright and Related Rights in the Information Society (InfoSoc Directive),⁶⁷ the Directive for the Legal Protection of Computer Programs (Software Directive)⁶⁸ and the Directive for the Legal Protection of Databases (Database Directive).⁶⁹ The first two also contain the originality requirement, i.e. that the work should be the author’s own intellectual creation.⁷⁰ This shows that there should be a balance between copyright and contract protection which is the same argument pointed out by this thesis. This may lead towards copyright style contractual clauses in the digital context which the UK and the EU law have insufficiently dealt with.⁷¹ These should be incorporated into the bundle of mechanisms for the protection of digital databases in Sri Lanka as suggested in this thesis, as copyright style contractual clauses are more practical because they themselves come up with two concepts which could work together.

⁶⁶ JGH Griffin, ‘The interface between copyright and contract: Suggestions for the future’ (2011) 2/1 EJLT (Internet) at 3 <<http://ejlt.org//article/view/23/118>> accessed 4 March 2013.

⁶⁷ Council Directive 2001/29/EC of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society, (OJ L 167, 22/06/2001 P 0010 – 0019).

⁶⁸ Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs, (OJ L 122, 17/05/1991 P 0042 – 0046).

⁶⁹ Council Directive 96/9/EC of 11 March 1996 on the legal protection of databases, (OJ L 077, 27/03/1996 P 0020 – 0028).

⁷⁰ M Kretschmer *et al.*, ‘Research on the Relationship between Copyright and Contract Law’ (2010) Strategic Advisory Board for Intellectual Property Policy 2010/04 at 89<http://eprints.bournemouth.ac.uk/16091/1/_contractlaw-report.pdf> accessed 15 May 2013; UK-Copyright and Rights in Databases Regulations 1997, SI1997/3032, reg. 6.

⁷¹ JGH Griffin, *supra* n.66, at 1.

4.2.4. Definition of a contract

A contract is an oral or written declaration given in exchange for something of value that binds the maker to do, or refrain from, a certain specific act and gives to the person to whom the declaration is made, the right to expect and enforce performance or forbearance despite⁷² its communication media. Both parties are undertaking that something will or will not occur.⁷³ Lord Justice A. L. Smith held that “the advertisement was an offer intended to be acted upon, and when accepted and the conditions performed constituted a binding promise on which an action would lie, assuming there was consideration for that promise”.⁷⁴

The most important features of a contract are offer and acceptance.⁷⁵ In a contract, one party makes an offer for an arrangement that another accepts. This can be called a concurrence of wills or *consensus ad idem* (meeting of the minds) of two or more parties.⁷⁶ In digital databases, the owner of the database initially makes the offer when providing his terms and conditions for the use of the database. The user subsequently accepts them by clicking before being allowed into the database.⁷⁷ As Tessensohn states:

“The seller of a database can require that any purchaser enter into a written contract as a condition of purchase. For example, the provider

⁷² *Brogden v Metropolitan Railway* (1877) 2 App. Cas. 666, held that the written contract was valid despite no communication of the acceptance. The acceptance can be communicated by performing the contract without any objection as to the terms.

⁷³ *Carlill v Carbolic Smoke Ball Company* [1892] EWCA Civ 1 (per A L Smith LJ).

⁷⁴ *Carlill, ibid.*, (per A L Smith LJ).

⁷⁵ *The Butler Machine Tool Company Ltd v Ex-Cell-O Corporation (England) Limited* [1979] 1 WLR 401.

⁷⁶ *The Household Fire and Carriage Accident Insurance Company (Limited) v Grant* (1878–79) LR 4 Ex D 216; *Baltimore & Ohio Railroad Co. v United States*, 261 US 592 (1923).

⁷⁷ See this Chapter at 4.2. Standard Form / Adhesion contracts; Burke, ‘Contract as Commodity: A Nonfiction Approach’ at 299.

of a database of computer lawyers could refuse to sell this information to anyone unless they first sign a written contract. That written agreement could expressly provide that the purchaser will not disclose the list of lawyers to anyone but authorized users, nor make any copies or allow unauthorized use of the information”.⁷⁸

Some differences between the functioning of the concept of contract can be found in the English legal system and the Roman-Dutch legal system. Both of these legal systems are used in Sri Lanka and differences in the functioning of contracts are seen in the different fields, for example, contracts on life insurance and fire insurance are different in the event of institution of action in the court. For example, a motor insurance contract is governed by Roman-Dutch Law.⁷⁹ Further, as Weeramantry notes: “[o]ur law of marine life and fire insurance is by virtue of the Civil Law Ordinance the English. Other types of insurance would be governed by the Roman Dutch law⁸⁰ [in Sri Lanka]”.⁸¹

These differences can be problematic in relation to the Internet as it is a global phenomenon and needs to be addressed by the mechanism of digital database protection. This thesis suggests setting up a condition which describes the ‘place of action’ where the parties agreed the contract.

⁷⁸ Tessensohn, ‘The Devil’s in the Details’ at 453.

⁷⁹ CG Weeramantry, ‘The Law of Contracts-Volume I : Being a treatise on the law of contracts as prevailing in Ceylon and involving a comparative study of the Roman-Dutch, English and customary laws relating to contracts’ (PhD Thesis/University of London, CG Weeramantry 1967) at 537 [hereafter Weeramantry, ‘The Law of Contracts-Volume I’].

⁸⁰ *Haniffa v Ocean Accident and Guarantee Corpn. Ltd.* (1933) 35 NLR 216.

⁸¹ Weeramantry, ‘The Law of Contracts-Volume I’ at 380.

4.2.5. Legal contract

A contract is merely an agreement made with the intention of creating an obligation. Therefore, an agreement is not a contract since “the specific rights and duties are not fixed by agreement, though the assumption of the relations is more or less voluntary”.⁸² Emmer de Vattel stated in his *Droit des Gens* (1757) that the purpose of being contracted is as “[o]bligation to keep Contracts”.⁸³ Hans Wehberg, under *Pacta Sunt Servanda*, identified that, “[t]he gods were, so to speak, the guarantors of the contract and they threatened to intervene against the party guilty of a breach of contract”.⁸⁴ In digital databases, both parties may agree to contract with the intention of creating obligations towards each other. The database owner or author agrees to provide the data while the user agrees to pay the payments.

A contract is an agreement of a particular form of a legal act. This legal act can be enforced before the law and brings more certainty to the parties. Therefore, this thesis concerns the contracts between owners and users of the digital databases rather than mere agreements or mere acts between them.

The main feature of a contract is an actual meeting of the minds of the contracting parties.⁸⁵ Hence, it is important to find out the consensus of the parties, meeting of the minds (*consensus ad idem*), in order to find the

⁸² MR Cohen, ‘The Basis of Contract’ (February 1933) 46/4 HLR 553 at 555.

⁸³ H Wehberg, ‘Pacta Sunt Servanda’ (October 1959) 53/4 AJIL 775 at 779.

⁸⁴ Hans Wehberg, *ibid.*, at 775.

⁸⁵ See this Chapter at above 4.2. Standard Form / Adhesion contracts and 4.2.2. Digital meeting of the minds.

availability of a legal contract.⁸⁶ Availability of a legal contract provides protection over the contractual parties of the digital database contract i.e. database owner or author and user. This increases the credibility of the database which attracts more users. More users create more benefits to the investment in the database. Therefore, meeting of minds is linked with investment in databases.

In both *PT Berlin Laju Tanker TBK v. Nuse Shipping Ltd*⁸⁷ and *Hawksford Trustees Jersey Limited as Trustee of the Bald Eagle Trust v. Stella Global UK Limited & Anor*⁸⁸ the importance of a meeting of the minds in order to confirm the existence of a contract is pointed out.⁸⁹ Similarly, Lord Loreburn J, in *Houldsworth v. Gordon Cumming*,⁹⁰ explained that:

“It is not enough for the parties to agree in saying there was a concluded contract if there was none, and then to ask for a judicial decision as to what the contract in fact was. That would be the same thing as asking us to make the bargain, whereas our sole function is to interpret it”.⁹¹

The court tries to find the real intention of the parties, which can be identified from the process of bargaining, despite what they have agreed. This means that the core of a contract is a ‘meeting of the minds’ which needs to be ascertained from the interpretation of a particular contract. This is the reason why this thesis

⁸⁶ See ‘A Consent Theory of Contract’ in RE Barnett, ‘A consent Theory of Contract’(1986) 2 CLR 269 at 291.

⁸⁷ [2008] EWHC 1330.

⁸⁸ [2012] EWCA Civ 55, 2012 WL 14980.

⁸⁹ *PT Berlin Laju Tanker TBK v Nuse Shipping Ltd* [2008] EWHC 1330 at para 38 cited in *Hawksford Trustees Jersey Limited as Trustee of the Bald Eagle Trust v Stella Global UK Limited & Anor* [2012] EWCA Civ 55, 2012 WL 14980.

⁹⁰ [1910] SC (HL) 49.

⁹¹ Cited in *Mathieson Gee (Ayrshire), Limited v Quigley* 1952 SC (HL) 38 (per Reid LJ).

suggests that the meeting of the minds should be the underlying theme of proposed contract protection.

As discussed above, the meeting of the minds is problematic for digital database contracts so a digital meeting of the minds should be instituted.⁹² As Reichman and Franklin further mention:

“With the convergence of digital and telecommunications technologies, creators and innovators who distribute computerized information goods online can increasingly combat the causes of market failure directly even in the absence of statutory intellectual property rights--by recourse to standard form contractual agreements that allow access to electronically stored information only on the licensor’s terms and conditions. In the networked environment, however, routine validation of mass-market access contracts and of non-negotiable constraints on users would tend to convert standard form licenses of digitized information goods into functional equivalents of privately legislated intellectual property rights”.⁹³

Shrink-wrap/click-on contracts provide a higher level of bargaining power to the digital database owners or authors. This leads to the misuse or abuse of market power because superior bargaining power can dominate the market.⁹⁴ Misuse or abuse of market power⁹⁵ creates an imbalance between owners or authors and users of digital databases. This imbalance reduces the predictability that is one of the factors in deciding the returns made from investments. Therefore,

⁹² See this Chapter at 4.2.2. Digital meeting of the minds.

⁹³ Reichman, J Franklin, ‘Privately Legislated Intellectual Property Rights: Reconciling Freedom of Contract with Public Good Uses of Information’ at 877.

⁹⁴ Barnhizer, ‘Inequality of Bargaining Power’ at 166-167; MJ Trebilcock, ‘The Doctrine of Inequality of Bargaining Power: Post-Benthamite Economics in the House of Lords’ (Autumn 1976) 26/4 UTLJ 359 at 366, 363ff and 376ff; R Dore, ‘Goodwill and the Spirit of Market Capitalism’ (December 1983) 34/4 BJS 459 at 465; *Macaulay v Schroeder Publishing Co Ltd*, [1974] 1 WLR 1308 (HL); *Henningsen v Bloomfield Motors Inc* 161 A. 2d 69 (1960).

⁹⁵ *British Airways plc v Commission of the European Communities* [2007] 4 CMLR 22; *Magill TV Guide Ltd v Independent Television Publications Ltd* (IV/31.851) [1989] 4 CMLR 757 (CEC).

shrink-wrap/click-on contracts undermine the attraction of the investment.⁹⁶ This thesis proposes that a digital meeting of the minds⁹⁷ will help to overcome this disadvantage of shrink-wrap/click-on contracts and thereby help to attract investors to the digital databases arena.

A digital meeting of minds helps both parties to 'meet' before being contracted in a digital database. This would reduce take-it or leave-it online digital databases contracts. The 'take-it or leave-it' situation confers superior bargaining power upon the digital database owner or author.⁹⁸ This decreases the popularity of digital databases as the 'take-it or leave-it' situation is not flexible for users. Having fewer users would adversely affect profits made from investments in databases. This adverse effect minimises the attraction of the investment.

Acceptance should reflect the offer precisely, in order for it to result in an agreement and this is what creates a meeting of the minds.⁹⁹ Acceptance can take place either by word¹⁰⁰ or by conduct.¹⁰¹ Lord Clarke, in *RTS Flexible*

⁹⁶ However, unfair competition laws, along with concept of misappropriation, attempt to prevent the abuse of market power. See Chapter 5.

⁹⁷ See this Chapter at 4.2.2. Digital meeting of the minds.

⁹⁸ *Craig Comb, et al., v PayPal, Inc.* 218 F. Supp. 2d 1165 (ND Cal. 2002); *Armendariz v Foundation Health Psychcare Serv.* 24 Cal. 4th 83 (2000); *Flores v Transamerica HomeFirst, Inc.*, 93 Cal.App.4th 846 (2001).

⁹⁹ See this Chapter at 4.2.1. Meeting of the minds (*consensus ad idem*).

¹⁰⁰ *Mathieson Gee (Ayrshire)Ltd v Quigley* 1952 SC (HL) 38; *Lucy v Zehmer* 196 Va. 493, 84 S.E.2d 516(1954).

¹⁰¹ *Brogden v Meropolitan Railway Co.* (1877) 2 App. Cas 666; *RTS Flexible System Ltd v Molkerei Alois Muller GmbH & Co (UK Production)* [2010] 1 WLR 753 [2010] UKSC 14 at para 45 (per Clarke LJ).

System Ltd v Molkerei Alois Muller GmbH & Co (UK Production),¹⁰² pointed out that:

“[W]hether there is a binding contract between the parties and, if so upon what terms depends upon what they have agreed. It depends not upon their subjective state of mind, but upon a consideration of what was communicated between them by word or conduct, and whether that leads objectively to a conclusion that they intended to create legal relations and had agreed upon all the terms which they regarded or the law requires as essential for the formation of legally binding relations”.¹⁰³

However:

“[O]ne who makes an offer dispenses with the requirement of notice of acceptance if the form of the offer shows that notice of acceptance is not required. To accept an offer, a person need only follow the indicated method of acceptance. If the offeror either expressly or impliedly indicates in his offer that it will be sufficient to act without giving notice of acceptance, performance amounts to a sufficient acceptance without notification”.¹⁰⁴

In digital databases, this process can be observed as ‘clicking on’¹⁰⁵ the provided box or place at the end of the list of the terms and conditions. This type of acceptance can be identified as an acceptance by word,¹⁰⁶ i.e. in writing in digital format. However, there may be a possibility to accept the terms and conditions in a digital database by conduct. An example of this can be found in the US case of *ProCD, Incorporated v. Matthew Zeidenberg and Silken Mountain Web Services, Inc.*¹⁰⁷ In this case it was held that:

¹⁰² [2010] UKSC 14, [2010] 1 WLR 753.

¹⁰³ [2010] UKSC 14 at para 45.

¹⁰⁴ *Carlill v Carbolic Smoke Ball Co.* [1893] QB 256 (CA).

¹⁰⁵ See this Chapter at 4.2.2. Digital meeting of the minds.

¹⁰⁶ *Mathieson Gee (Ayrshire)Ltd v Quigley* 1952 SC (HL) 38; *Lucy v Zehmer* 196 Va. 493, 84 SE 2d 516 (1954).

¹⁰⁷ 86 F.3d 1447 (7th Cir. 1996).

“A buyer may accept by performing the acts the vendor proposes to treat as acceptance. And that is what happened. ProCD proposed a contract that a buyer would accept by using the software after having an opportunity to read the license at leisure. This Zeidenberg did. He had no choice, because the software splashed the license on the screen and would not let him proceed without indicating acceptance”.¹⁰⁸

Having examined all of these concepts, the court should try to find out the minds of the parties to the contract. The availability of legal contracts depends on the concept of a meeting of minds of the contractual parties.¹⁰⁹ Therefore, it can be identified that meeting of minds of the contracting parties is the governing factor in a legal contract.¹¹⁰ However, this feature is controversial in digital database contracts and this will be discussed in relation to the proposed notion of a digital meeting of the minds in this Chapter.¹¹¹

4.2.6. Contract law

The thesis expects to find a link between the notion of a meeting of the minds and the intention of the contractual parties. The meeting of the minds brings legal validity to the contract¹¹² and lies under the guidelines provided by contract law. The meeting of the intention of the promisor, the database owner or author, with the intention of the promisee, the database user, is the basis for the meeting of the minds of the digital database contract. Failure to understand

¹⁰⁸ *ProCd, ibid.*, at para 13.

¹⁰⁹ See this Chapter at 4.2.1. Meeting of the minds (*consensus ad idem*).

¹¹⁰ *Patrick McOscar v Brendan Loughran* [2012] NIQB 40, 2012 WL 2500421 at para 15 (per McCloskey J).

¹¹¹ See this Chapter at 4.2.2. Digital meeting of the minds.

¹¹² *The Household Fire and Carriage Accident Insurance Company (Limited) v Grant* (1878-79) LR 4 ExD 216; *Patrick McOscar v Brendan Loughran* [2012] NIQB 40, 2012 WL 2500421.

the intentions of the promisor and promisee questions the validity of the legal contract. Invalid legal contracts do not provide protection for digital databases and, furthermore, cannot be a tool to attract investment to the digital databases field.

The agreement finds its legal form through the offer and acceptance.¹¹³ Offer and acceptance makes available an external, practical and meaningful expression of an idea that makes an agreement which is the vital requirement of contract formation.¹¹⁴ This expression of the idea denotes the parties' minds, i.e. what they in fact intend to do. The law of contract takes an objective approach rather than a subjective one in terms of the intention of the parties.¹¹⁵ Promisor objectivity¹¹⁶ tries to find out the objective view of what the promisor i.e. database owner, truly meant or truly intended by his words.¹¹⁷ This wording can be found in the terms and conditions of the digital database contract. This objective theory helps to find out the database owner's real intention in standard form/adhesion contracts despite them not providing an opportunity for bargaining.

¹¹³ *Ingram v Little* [1961] 1 QB 31 at 64 (per Devlin J).

¹¹⁴ *Ingram v Little* [1961] 1 QB 31 (per Devlin J); Ferris J. in *Martin- Smith v Williams* [1998] EMLR 334 at 358.

¹¹⁵ JM Perillo, 'The Origins of the Objective Theory of Contract Formation and Interpretation'(2000) 69 FLR 427 at 427.

¹¹⁶ Promisor objectivity, promise objectivity and detached objectivity are the three possible meanings of objectivity in contract law. *Smith v Hughes* (1871) LR 6 QB 597 (per Hennen J).

¹¹⁷ *Smith v Hughes*, *ibid.*, (per Hennen J).

Detached objectivity,¹¹⁸ with a view to ascertaining the intentions of the parties, refers to the outward appearance of the digital database contract. Outward appearances denote that there is a contract as the parties agreed upon the 'same subject matter.' This is similar to the standard form/adhesion contracts. These contracts are considered as contracts without taking in to account the failure of representation of the meeting of minds. However, the real interests of the parties may vary according to the situation and time even though it is about the same subject matter or same terms and conditions. Therefore, the proposal in this thesis for a digital meeting of minds is practical as it provides a chance to change the terms and conditions every time the parties enter into a contract.¹¹⁹

In order to achieve this aim it is important to find out the subjective view of the parties that are clearly relevant to the question of evidence as to what each believed they were agreeing to. This can be found from implied terms¹²⁰ and mistaken agreements.¹²¹ In *Luxor (Eastbourne) Ltd. v. Cooper*¹²² Lord Wright explained that:

“The expression ‘implied term’ is used in different senses. Sometimes it denotes some term which does not depend on the actual intention of the parties but on a rule of law, such as the terms, warranties or conditions which, if not expressly excluded, the law imports, as for instance under the Sale of Goods Act and the Marine Insurance Act ... But a case like the present is different because

¹¹⁸ *Solle v Butcher* [1950] 1 KB 671 at 691 (per Denning LJ).

¹¹⁹ See this Chapter 4.2.2. Digital meeting of the minds.

¹²⁰ *Paula Lee Ltd v Robert Zehil* [1983] 2 All ER 390; *Paragon Finance plc v Nash* [2001] EWCA Civ 1466; *Equitable Life Assurance Society v Hyman* [2002] 1 AC 408.

¹²¹ *Smith v Hughes* (1871) LR 6 QB 597; *Statoil ASA v Louis Dreyfus Energy Services LP* [2008] EWHC 2257(Comm), [2008] 2 Lloyd's Report 685.

¹²² [1941] AC 108.

what it is sought to imply is based on an intention imputed to the parties from their actual circumstances”.¹²³

In a mistaken agreement,¹²⁴ contracting parties may have agreed but they were both misled about the fundamental issues of the contract.¹²⁵ Lord Phillips in *Great Peace Shipping Ltd v Tsavliris Salvage (International) Ltd* stated that:

“A mistake can be simply defined as an erroneous belief. Mistakes have relevance in the law of contract in a number of different circumstances. They may prevent the mutuality of agreement that is necessary for the formation of a contract. In order for two parties to conclude a contract binding in law each must agree with the other the terms of the contract. Whether two parties have entered into a contract in this way must be judged objectively, having regard to all the material facts. It may be that each party mistakenly believes that he has entered into such a contract in circumstances where an objective appraisal of the facts reveals that no agreement has been reached as to the terms of the contract”.¹²⁶

The digital amending process (digital meeting of the minds¹²⁷) which is suggested by this research aims to circumvent the problems related to the aforesaid implied terms and mistaken agreements. Through the digital amending process, both parties in digital database contracts can make suggestions to the terms and conditions of the contract. Such an agreed final amended version of the contract could be considered as a legal contract.

Commercial matters, trade, consumer contracts, property transactions, construction, industrial manufacturing, employment relations and financial

¹²³ *Luxor (Eastbourne) Ltd., ibid.,* at137; *Equitable Life Assurance Society v Hyman* [2000] UKHL 39.

¹²⁴ *Bell v Lever Brothers Ltd* [1932] AC 161(per Atkin LJ); *Solle v Butcher* [1950] 1 KB 671 (per Denning LJ).

¹²⁵ *Statoil ASA v Louis Dreyfus Energy Services LP* [2009] 1 All ER (Comm) 1035.

¹²⁶ [2002] EWCA Civ 1407 at para 28; *Raffles v Wichelhaus* (1864) 2 H&C 906.

¹²⁷ See this Chapter 4.2.2. Digital meeting of the minds.

services are the main areas of contract law.¹²⁸ Digital databases are involved in all of the above mentioned fields and industries¹²⁹ and helping to expedite their functions.¹³⁰ For example, air travel tickets, train tickets, accommodation, restaurant bookings, cinema tickets all use contractual terms and conditions in online digital databases. As the OECD¹³¹ states:

“Trust is central to any commercial transaction. Typically, it is generated through relationships between transacting parties, familiarity with procedures, or redress mechanisms. Developing new kinds of commercial activities in the electronic environment largely hinges on assuring consumers and businesses that their use of network services is secure and reliable, that their transactions are safe, and that they will be able to verify important information about transactions and transacting parties, such as origin, receipt and integrity of information; and identification of parties dealt with”.¹³²

Both contractual parties should trustworthiness to each other due to set up a legal contract. Meeting of the intention of parties institutes the requested trust between parties. The thesis' proposed digital meeting of the minds helps to institute this trust between parties in online digital database contracts. The thesis proposed notion further helps to verify the important information in a database contract.

¹²⁸ PF Uhler, 'From Spacecraft to Statecraft: The Role of Earth Observation Satellites in the Development and Verification of International Environmental Protection Agreements'(1995) 2 GISL 1.

¹²⁹ Fayyad *et al.*, 'From data mining to knowledge discovery in databases' at 39; Piatetsky-Shapiro *et al.*, 'An Overview of Issues in Developing Industrial Data Mining and Knowledge Discovery Applications' at 93; See Chapter 3 at 3.6.3. Industrial applicability.

¹³⁰ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

¹³¹ *Dismantling the Barriers to Global Electronic Commerce* (Paris: OECD, 1998) cited in R Brownsword, G Howells, 'When surfers start to shop: Internet commerce and contract law' (1999) 19/3 LS 287 at 289.

¹³² R Brownsword, G Howells, *ibid.*, at 289.

4.3. Contract law in Sri Lanka

If the proposed system were to be followed, stakeholders of digital databases would have to understand the complex nature of the contract law in Sri Lanka. This behaviour is derived from the multi-cultural legal systems which are led by Roman - Dutch Law and English law. The former is considered the common law¹³³ of Sri Lanka¹³⁴ (unless there is a contrary provision in a statute of Sri Lanka), but statute law may provide a different rule. English law has become regularly used in Sri Lanka, “partly through statutes which themselves have enacted rules of English law, partly by tacit adoption by judicial decisions and partly by tacit use of English legal concepts”.¹³⁵ One of the main concepts under contract law, ‘consideration’, is, therefore, differently addressed in Sri Lanka. Contractual parties’ misunderstanding of this concept causes a failure to provide consideration in database contracts. This subsequently affects investment in databases because it discourages database users and has a bearing on the smooth functioning of the database market.

¹³³ Glanville Williams has pointed out that the phrase of common law may be used in different senses. ATH Smith (ed), *Glanville Williams: Learning the Law* (14th edn, Sweet & Maxwell 2010) 21-22.

¹³⁴ LMJ Cooray, *An introduction to the Legal System of Ceylon* (Lake House Investment 1972) 38, 71; S Goonesekera, ‘The Roman Dutch Law in the Plural Legal System of Sri Lanka’ (1998) 9 CLR 1.

¹³⁵ Weeramantry, ‘The Law of Contracts-Volume I’ at 44; HW Tambiah, ‘Sri Lanka’ in Victor Knapp (ed), *Encyclopedia of Comparative Law: National Reports* (Martinus Nijhoff Publishers 1987) 129-130.

4.3.1. Consideration

As Lush J stated in the UK *Currie v Misa*: “[a] valuable consideration, in the sense of the law, may consist either in some right, interest, profit, or benefit accruing to the one party, or some forbearance, detriment, loss, or responsibility, given, suffered, or undertaken by the other”.¹³⁶ Therefore, consideration is something¹³⁷ which represents either some benefit to the person making the promise or some loss to the person to whom the promise is made.¹³⁸ In digital databases, database owners or authors are, therefore, bound to provide the data or information in order to contract with the users. Failure to do so creates problem between database owners or authors and users. This situation decreases the efficiency and popularity of the particular digital database. As noted above, efficient services and popularity refer to the benefits of investment in databases.¹³⁹ Thus, failure to provide consideration in digital database contracts ultimately affects this investment.

The consideration must have some economic value,¹⁴⁰ however, this does not need to be quantified.¹⁴¹ Data in digital databases cannot be precisely quantified, but acquires economic value according to the supply and demand in the market. As this thesis suggests, data acquires value in terms of functions of

¹³⁶ *Currie v Misa* (1875) LR 10 Ex 153 at 162; *Balfour v Balfour* [1919] 2 KB 571.

¹³⁷ *Thomas v Thomas* (1842) 2 QB 851.

¹³⁸ *Williams v Roffey Bros* [1990] 2 WLR 1153; *Ward v Byham* [1956] 1 WLR 496.

¹³⁹ Landes, RA Posner, ‘The Economics of Trademark Law’ at 272; P Resnick *et al.*, ‘The value of reputation on eBay: A controlled experiment’ (June 2006) 9/2 EE 79 at 80.

¹⁴⁰ *Lucy v Walwyn* (1561) KB 27/1026; *Thomas v Thomas* (1842) 2 QB 851.

¹⁴¹ *Chappell & Co v Nestle* [1960] AC 87.

computer programs in digital databases.¹⁴² This makes a link to the benefit that data brings to digital databases. Some cases¹⁴³ have refused to consider a factual benefit. Others¹⁴⁴ have found the existence of consideration despite the apparent lack of either benefit to the promisor or detriment to the promisee. These approaches allow for an examination of the value of digital data in digital databases¹⁴⁵ when using the concept of consideration in contracts relating to database protection.

4.3.2. Consideration and “*justa causa*” in Sri Lanka

The common law doctrine of ‘consideration’ (return for a promise) as an essential component of the validity of a contract is not prevalent in Sri Lanka as a general rule. In Roman Dutch law and in most continental systems based on civil law, the simple requirement of *justa causa* is used to satisfy the requirement, which is a promise that must be serious and deliberate.¹⁴⁶ However, in respect of contracts governed by principles of English law, consideration may be required, for example, in contracts for the sale of goods which were governed by the Sale of Goods Ordinance No 11 of 1896¹⁴⁷ and

¹⁴² See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

¹⁴³ *Foakes v Beer* (1884) 9 App Cas 605.

¹⁴⁴ *Cook v Wright* (1861) 1 B & S 559.

¹⁴⁵ See Chapter 1 at 1.5. *supra* n.142.

¹⁴⁶ Weeramantry, ‘The Law of Contracts-Volume I’ at 219.

¹⁴⁷ Section 58 (2) provides that subject to the express provisions of the Ordinance, the rules of English Law will apply to the Sale of Goods except where English law is inconsistent to the express provisions of the Ordinance.

Bills of Exchange No 25 of 1927¹⁴⁸ which are based on English law. As a country where both these legal systems function, Sri Lanka and its digital database protection must consider this consideration issue in relation to contract protection.

The Roman-Dutch law principle of *justa causa* has now been well established in Sri Lanka. “It has a much wider meaning than the English term ‘consideration’ and comprises the motive or reason for the promise and also has a purely moral consideration”.¹⁴⁹ Therefore, consideration or *justa causa* in digital database contracts adequate in the view of Roman-Dutch law. The wider meaning in Roman - Dutch law¹⁵⁰ provides the possibility for a wider interpretation which helps in the development of the digital database legal regime in Sri Lanka.

¹⁴⁸ “Section 27(1) Valuable consideration for a bill may be constituted by-
(a) any consideration which by the law of England is sufficient to support a simple contract”.

¹⁴⁹ *Lipton v Buchanan* (1904) 8 NLR 49 (per Wendt J) cited in Weeramantry, ‘The Law of Contracts-Volume I’ at 219.

¹⁵⁰ *Jayawickrema v Amarasuriya* (1918) 20 NLR 289 at 294 (per Atkinson LJ); *Abeysekere v Gunesekere* (1918) 5 CWR 242.

4.4. Digital Rights Management

Digital Rights Management Systems (DRM) are technologies that support contractual business models by securing trade in digital content.¹⁵¹ There is still no universal definition of DRM.¹⁵² However, this does not mean that Technological Protection Mechanisms (TPM) which are *technical* means used by holders of copyright and related rights are limited to protecting their works or other subject-matter. Therefore, TPM are a second layer protecting such subject-matter in addition to the first layer (copyright or related rights).¹⁵³ Griffin observes that: “[t]he phrase DRM does not relate just to rights such as copyright, but the rights (i.e. ability) to control future uses of a work”.¹⁵⁴

“The Digital Millennium Copyright Act (DMCA) is a US copyright law passed unanimously on May 14, 1998, that criminalizes the production and dissemination of technology that allows users to circumvent copyright protection methods, rendering all forms of digital rights management (DRM) stripping and circumvention software illegal”.¹⁵⁵ The EU Copyright Directive (Information Society Directive)¹⁵⁶ is similar in nature to the DMCA.¹⁵⁷ The DMCA (and also

¹⁵¹ N Rump, ‘DRM-Definition, Aspects, and Overview’ in E Becker *et al.*, (eds), *Digital Rights Management: Technological, Economic, Legal And Political Aspects* (Springer 2003) cited in Z Efroni, *Access Right- The Future of Digital Copyright Law* (OUP 2011) 193.

¹⁵² Z Efroni, *ibid.*, 196.

¹⁵³ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 194-195. Derclaye further says that “these TPMs are therefore not law as such, but a purely mechanical type of protection, or, as some have described them, they are code.” Derclaye, *ibid.*, 195.

¹⁵⁴ Griffin, ‘The Copyright Balancing Exercise in the Digital Era: A Proposal for Reform’ at 116.

¹⁵⁵ A Ballabh, ‘Paracopyright’ (2008) 30/4 EIPR 138 at 139.

¹⁵⁶ UK implementation- Copyright and Related Rights Regulations 2003, SI2003/2498.

¹⁵⁷ The EU Directive 2001/29/EC of the European Parliament and of the Council of May 22, 2001 on the harmonisation of certain aspects of copyright and related rights in the

the Information Society Directive) is an implementation of the WIPO Copyright Treaty and WIPO Performances and Phonograms Treaty.¹⁵⁸ “The DMCA was largely ineffective in enforcing DRM, as [computer program] allowing users to circumvent copyright restrictions remains readily available over the Internet. However, the Act has been used to restrict the spread of such [computer program] by limiting its distribution and development, as in the case of DeCSS, a computer programme”.¹⁵⁹

DRM involves a copy control tool management scheme that polices and detects every single interaction with digital content.¹⁶⁰ This protects the digital content in the same way that contract and copyright protect digital databases. However, the usage of DRM with contract and copyright protection is controversial. Digital locks alongside the DRM could restrict or mimic the functions of doing something in legal nature, such as accessing to the digital databases or public domain, making backup copies of digital material such as CDs/DVDs, lending materials out through the digital databases or libraries or utilizing copyrighted materials for education and/or research purposes under fair use defence: “Some technologies such as ‘Right Locker Architectures’ enable access to content from various devices in which the authorization is tied to certain users rather than to certain devices”.¹⁶¹

information society, commonly known as the EU Copyright Directive or EUCD, is the EU’s implementation of the 1996 WIPO Copyright Treaty.

¹⁵⁸ The World Intellectual Property Organization Copyright Treaty / WIPO Performances and Phonograms Treaty , 20 December 1996, effect from 20 May 2002.

¹⁵⁹ A Ballabh, *supra* n.155, at 139.

¹⁶⁰ N Rump, ‘DRM-Definition, Aspects, and Overview’ in E Becker *et al.*, (eds), *Digital Rights Management: Technological, Economic, Legal And Political Aspects* (Springer 2003) 7-10.

¹⁶¹ Z Efroni, *Access Right- The Future of Digital Copyright Law* (OUP 2011) 197.

It can be seen that contract protection is more reliable and useable compared to the DRM in relation to digital database protection. DRM technologies provide control over the seller of digital content or devices after it has been sold to the customer or consumer.¹⁶² Further, it prevents access by the consumer, denying the user the ability to copy the content or convert it into other formats. Copying or converting it to other formats is an inheritable practice of digital databases as content may need to be used as part of other digital databases.¹⁶³ DRM stop this process while contract protection is more flexible to functions of copying the content or converting them into other formats in order to use them for other digital databases or personal use. This process, i.e. using data in other digital databases, is one of the main processes in the enhancement of value and/or usefulness of data in a particular database. A contract provides the legal mechanism for sharing data between digital databases. Thus, contract protection protects the process of the enhancement of value and/or usefulness of the data in digital databases. This means that the contract protection mechanism protects investment in digital databases.

However, as noted by Samartzi, when compared to copyright:

“DRM systems do more than simply protect the copyright in works. They can limit the user's period of view, restrict the number of copies that can be made, time-limit them, or even force a user to resort to a paper copy of a work in digital format”.¹⁶⁴

Limitations on the user's period of view, restrictions on the number of copies and time-limit terms, minimise the availability and popularity of digital

¹⁶² Griffin, 'The Copyright Balancing Exercise in the Digital Era: A Proposal for Reform' at 116.

¹⁶³ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

¹⁶⁴ V Samartzi, 'Optimal vs sub-optimal use of DRM-protected works' (2011) 33/8 EIPR 517 at 517.

databases. Limited availability and less popularity affect the benefit of the investment in digital databases.¹⁶⁵ Limited benefits do not achieve a higher level of attraction of investment to the field of digital databases. Hence, DRM along with the above limitations limit the attraction of investment to the digital database field.

DRM allows functioning without infringing copyright, if the works were not DRM-protected. Further, in order to comply with the development of technology, as Favale notes:

“[I]ncreasingly sophisticated DRM will require less and less approximation and it will hopefully accommodate an increasing number of copyright exceptions, or instances of fair use. Crucial to this end is the activity of special control authorities that monitor legal and technical progress and issue guidelines to modify DRM in accordance”.¹⁶⁶

However, in this regard, contract, in the first instance in the protection of digital databases works as a gate lock.¹⁶⁷ The terms and conditions of the contract categorises the users according to their necessity. This process removes or binds the unnecessary free riders to the terms and conditions of the database contract.

DRM can be employed to circumvent the problems arising from the information which needs to be used or is being used in digital databases, that is non-

¹⁶⁵ Landes, RA Posner, ‘The Economics of Trademark Law’ at 272; “Internet markets also have significant advantages in establishing reputations. First, any information that is gleaned can be near costlessly tallied on a continuing basis, and written assessments can readily be assembled. Second, that information can be near costlessly transmitted to millions of potential customers”. P Resnick *et al.*, ‘The value of reputation on eBay: A controlled experiment’ (June 2006) 9/2 EE 79 at 80.

¹⁶⁶ M Favale, ‘Approximation and DRM: can digital locks respect copyright exceptions’ (2011) 19/4 IJLIT 306 at 322
<<http://Ojlit.oxfordjournals.org.catalogue.ulrls.lon.ac.uk/content/19/4/306.full>> accessed 5 March 2013.

¹⁶⁷ See this Chapter at 4.5. Contract as a gate lock.

copyrightable or copyright expired. This is an acceptable solution since this proposed system is a bundle of mechanisms. Nair notes that:

“The privacy of consumers may also come into question in the use of DRMs where such technology may require processing of personal information about the consumer without their consent or knowledge to enable its operation. These issues gain further pertinence where reuse of the information for secondary purposes comes into question. DRMs may also in the process of their function restrict non-copyrightable or copyright expired works in the public domain hampering the very purpose of it being so”.¹⁶⁸

DRM enhances the attraction of investment opportunities as it can be a marketing strategy.¹⁶⁹ Digital databases are places where the information is modified and reproduced for the purpose of enhancing the value of information thanks to the computer program used.¹⁷⁰ This value-enhancing process depends on the investment and it produces benefits to the investment. Therefore, DRM protection over the information helps to protect investment in the digital database field and, consequently, this attracts further investment to the field.

Digital databases’ data content consists of pre-modified data. Marketing strategies on value-enhanced data of pre-modified data content helps to attract data users. Consequently, this attracts investment to the databases. Therefore, marketing strategies which are enabled by DRM can help to maximise the financial benefits of the digital databases. Magnani and Montagnani state that:

¹⁶⁸ MS Nair, ‘The DRM proposal in India: enticing the entertainment industry’ (Legislative Comment) (2009) 20/1 ELR 10 at 13.

¹⁶⁹ P Magnani, ML Montagnani, ‘Digital rights management systems and competition: what developments within the much debated interface between intellectual property and competition law?’ (2008) 39/1 IRIPCL 83 at 88.

¹⁷⁰ See Chapter 3 and Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

“DRM technology is used by content right holders to implement their marketing strategy. As a matter of fact, each type of copyrighted material is linked to a pre-defined group of utilities. These utilities can be linked to the right of listening or modifying, reproducing, translating in other languages, saving for a determined period of time, distributing, etc. Therefore, DRM systems can implement the complete marketing strategy of the copyright holder. Thus, DRM systems seem to play the same role that physical carriers do”.¹⁷¹

The economic notion behind this strategy is that:

“The received economic wisdom holds that a period of legal exclusivity allows the developer of a new creation to recoup the investment made in development, either by selling the product at higher than marginal cost or by licensing the work to others who will sell it at higher than marginal cost”.¹⁷²

Digital database developers expect a return on their investment. Protection of the investment confirms the return on investment and, therefore, attracts more investors to the digital database field. Burk notes that, “the promise of a return on investment is important for the development of all kinds of goods, not merely those we term intellectual property”.¹⁷³

¹⁷¹ P Magnani, ML Montagnani, *supra* n.169, at 88.

¹⁷² WM Landes, RA Posner, ‘An Economic Analysis of Copyright Law’ (1985) 18 JLS 325 at 326-327. cited in DL Burk, ‘Market Regulation And Innovation Legal and Technical Standards in Digital Rights Management Technology’ (2005-2006) 74 FLR 537 at 537.

¹⁷³ DL Burk, *ibid.*, at 537.

4.5. Contract as a gate lock

A digital database is an intellectual creation and is a result of considerable contributions by database creators and/or users, for example, *Facebook* and *Youtube*. To secure the interests of right holders, it is desirable to protect this invested contribution by using a contract, since it works as an access control tool. Hence, the database owner needs some form of protection that prevents access to the database by anyone who does not have a contractual right to that access. If anyone can access it without obtaining a contractual right, there is little or no incentive for them to enter into a contract to obtain such a right.¹⁷⁴ In digital databases this can be done by username, password and encryption. This is one kind of technological protection that a contract enables.

Traditional technological database security depends on various techniques such as access control systems, “information flow control, operating system and network security, prevention of statistical inference, data and user authentication, encryption, time-stamping, digital signatures, and other cryptographic mechanisms and protocols”.¹⁷⁵ As Schafer and Mason state “[cryptography] is the best known anti-forensic method to hide data from third parties”.¹⁷⁶ However, the strength of these technological protections are based on the technological strength i.e. communication and computer power or

¹⁷⁴ Davison, *The Legal Protection of Databases* 41.

¹⁷⁵ U Maurer, ‘The role of cryptography in database security’ (2004, June) Proceedings of the 2004 ACM SIGMOD international conference on Management of data ACM 5 at 5 <<ftp://ftp.inf.ethz.ch/pub/crypto/publications/Maurer04b.pdf>> accessed 17 October 2013.

¹⁷⁶ B Schafer, S Mason, ‘The Characteristics of Electronic Evidence in Digital Format’ in S Mason (ed), *Electronic Evidence* (3rd edn, LexisNexis 2012) at para 2.25; S Mason, *Electronic Signatures in Law* (3rd edn, Cambridge University Press 2012) 259.

techniques themselves.¹⁷⁷ Even though the Sri Lankan situation as regards these techniques is a developing process, the statutory provisions have already been taken by the Electronic Transactions Act No-19 of 2006 (ETA).¹⁷⁸ Section 24 and 26 of ETA provides the legal background for the use of cryptographic techniques under the interpretation of certification services. The cryptographic techniques are used as certification techniques, identity protector¹⁷⁹ and part of the security procedure of electronic transactions.¹⁸⁰

An access control tool, in addition to contract protection, provides an extra advantage for digital database owners and authors. Access control tools can be utilised as a classification mechanism with which users can be classified according to their interest to use the digital database. For example, users of *Youtube* may be academics or researchers with academic or research interests, they can be ordinary people with entertainment interests or they can be users who are interested in contributing. Categorising these users according to their purpose of use increases the financial advantages of the digital databases as this imposes different pricing categories for different users. Access control tools can prevent access to the wrong users. This practice therefore minimises the unavailability of digital databases. This attracts more useful users which again increases the profits of the database.

¹⁷⁷ B Koops, 'Bert-Jaap Koops homepage - Crypto Law Survey-Overview per country' (February 2013) Version 27.0 (Internet) <<http://www.cryptolaw.org/cls2.htm#eu>> accessed 17 October 2013; U Maurer, *supra* n.175 at 5.

¹⁷⁸ Electronic Transactions Act No-19 of 2006, s 2.

¹⁷⁹ B Koops, *The Crypto Controversy: A Key Conflict in the Information Society* (PhD Thesis/Tilburg University 1998, Kluwer Law International 1999) at 54.

¹⁸⁰ Electronic Transactions Act No-19 of 2006, s 26.

However, a problematic area is the terms and conditions which need to be agreed before contracting. Terms and conditions of the contract of use of digital databases need to be agreed by the users by clicking the provided box or place on the particular database. Some users believe that they have become party to the contract just by clicking on the provided box with or without reading the entire terms and conditions.¹⁸¹ This affects the heart of the contract, namely, the concept of meeting of the minds discussed above.¹⁸² In terms of this type of 'click on' contracts, there is no such negotiation between the parties.¹⁸³

Reichman and Franklin observe that:

“With the convergence of digital and telecommunications technologies, creators and innovators who distribute computerized information goods online can increasingly combat the causes of market failure directly even in the absence of statutory intellectual property rights by recourse to standard form contractual agreements that allow access to electronically stored information only on the licensor's terms and conditions”.¹⁸⁴

Even though there is a literary contract, it is impossible to determine the basis of the contract. In reality, most users put a tick in the provided box without reading or understanding the terms and conditions of the contract. This type of mechanism restricts the negotiation opportunities of both parties to the contract. This thesis identifies this as a negative effect/disadvantage of contract protection of digital databases and proposes to make suggestions to rectify this.

¹⁸¹ Reichman, J Franklin, 'Privately Legislated Intellectual Property Rights: Reconciling Freedom of Contract with Public Good Uses of Information' at 908.

¹⁸² See this Chapter at 4.2.1. Meeting of the minds (*consensus ad idem*).

¹⁸³ Davison, *The Legal Protection of Databases* 41.

¹⁸⁴ Reichman, J Franklin, *supra* n.181, at 877-878.

One of these suggestions is to open a digital format for negotiation before contracting with a digital database owner. This may reduce the volume of users of digital databases as this process may be more time-consuming. It can be overcome by categorising the users according to their needs and intention in the terms and conditions of the contract. Some users would like to be contracted without bargaining on terms and conditions as they are in a rush and are willing to take this risk. The existing contract protection is applicable for those who are in this category. The modified version of contract protection as per this thesis is suitable for users who want a more tailored set of terms and conditions.¹⁸⁵ Putting a tick in the box provided against each term and condition rather than clicking in one box for the whole as a bundle at the end of the list of terms and conditions is workable in this regard. If they do not wish to click on a particular term or condition other alternatives can be offered.¹⁸⁶ This amends the whole contract according to the amendments and enforces a separate contract between the owner and the particular user. This is a fast and time-saving process in the form of a digital interaction.

This process, a digital meeting of the minds, further minimises the strictness of the terms and conditions of the database contracts. The digital meeting of minds further reduces the higher level of bargaining power of the owner or author. Therefore, this is a user-friendly tool and attracts more investment. The popularity of databases enhances the position of digital databases in the marketplace and attracts more investors to the field. This is one of the deliverables of this research.

¹⁸⁵ See this Chapter at 4.2.2. Digital meeting of the minds.

¹⁸⁶ See this Chapter at 4.2.2. *ibid.*

4.5.1. Economic advantage of contractual protection of digital databases

As mentioned before,¹⁸⁷ contract protection of digital databases can include categorizing the users of those databases. Categorising those users according to their interests can generate economic advantages for digital databases. Further, it reduces the unnecessary usage of databases which enhances the operational speed, availability and ease of use.¹⁸⁸

4.5.2. The way that the economic advantage works

Different groups can be granted access to the information contained in the database according to their capacity to pay, their desire for the product and the use that they will make of the information supplied.¹⁸⁹ Davison writes that:

“Commercial users who are using the information to produce their own informational product, such as a newer, bigger, better or different database could be charged a different rate from the rate imposed for a non-competing use. The contract can be tailored to ensure that the database owner receives an appropriate return on their investment, as the terms of the individual contracts will be a reflection of the market demand for, and supply of, the information in question”.¹⁹⁰

Educational users can be further categorised according to their reason for using the digital database. This may be a commercial use which can be charged at a higher rate. A contract for a digital database provides the framework for this pricing process. The usability of setting up this kind of contract is high in the

¹⁸⁷ See this Chapter at 4.2.2. Digital meeting of the minds.

¹⁸⁸ See this Chapter at 4.2.2. *ibid.*

¹⁸⁹ Davison, *The Legal Protection of Databases* 40.

¹⁹⁰ Davison, *ibid.*

digital version of databases, because digital formation provides added freedom in setting up the contract.

Data provided by one database could be the infrastructure of another database. This process develops the digital databases and enhances the availability of data. This process can be accelerated with a considerable level of protection mechanisms in digital databases. Among other protection mechanisms, contract gives stability to database users and owners or authors in this regard through the ability to categorise users within it. The digital or physical databases which are formed on digital databases can be charged different rates according to their interests. This further depends on the concept of unfair competition which will be examined in the next Chapter.

Reichman and Franklin note that:

“Telecommunications networks and digital technology has led to the production and marketing of large bundles of electronically aggregated ... information whose chief selling point is completeness rather than engineering or design excellence. Electronically compiled databases ... usually lack the attributes of creative achievement needed to qualify for traditional forms of intellectual property protection. As a result, database producers cannot rely on existing laws to protect their investments against free riders who duplicate a loosely bundled collection of information without making any appreciable investment of their own”.¹⁹¹

Providing a protection to investment is a way of attracting more investors into the field which is one of the main aims of this thesis.¹⁹² This thesis proposes the

¹⁹¹ Reichman, J Franklin, ‘Privately Legislated Intellectual Property Rights: Reconciling Freedom of Contract with Public Good Uses of Information’ at 888; JH Reichman, ‘Computer Programs as Applied Scientific Know-How: Implications of Copyright Protection for Commercialized University Research’ (1989) 42 VLR 639 at 656; JH Reichman, P Samuelson, ‘Intellectual Property Rights in Data?’ (1997) 50 VLR 51 at 64-66.

¹⁹² See Chapter 1 at 1.6.2. Link between protection and investment.

editing of terms and conditions of the contract, digital meeting of the minds¹⁹³ providing flexibility to the digital database contract. The flexibility of making alterations to terms and conditions of contracts may reflect the market variations at the time of contracting. Database users alter the terms and conditions according to their needs and this is directed by existing market conditions. This function also gives equal bargaining power to both owners or authors and users of the database. This enhances the market power of digital databases and is an advantage of using contracts as a protection mechanism. This further emphasises that contracts for digital databases operate as a tool which can be used to control the marketing power of databases and protect the system at the same time.

Therefore, contracts function as a market facilitating tool which controls the supply and demand that decides the price of information.¹⁹⁴ The basic notion of market power depends on supply and demand. When compared to other tools for protection of digital databases, contracts provide the basis for changing pricing policies of particular database contracts easily. The supply and demand of the price of the information in digital databases depend on the interest of users. Davison suggests that, “if the database owner can tailor access to the database to meet the different users’ willingness to pay, they can maximise their return from the database while at the same time meeting the demands of all potential users for access”.¹⁹⁵

¹⁹³ See this Chapter at 4.2.2. Digital meeting of the minds.

¹⁹⁴ Davison, *The Legal Protection of Databases* 239.

¹⁹⁵ Davison, *ibid.*, 243.

Accordingly, the owner wants to obtain an incentive for his investment in setting up and maintaining the database. However, this may lead to price discrimination because the bargaining power of the owner depends on the nature of the database users such as whether they are commercial users and non-commercial users.¹⁹⁶ The owner can fix a higher price for commercial users as he has a strong right over the databases. Such “existence of strong property rights preventing reproduction and redistribution of databases will constitute a strong incentive to create databases”.¹⁹⁷ Moreover, “the owner of the database will have a considerable incentive to provide access to its database if it has strong property rights that permit it to engage in price discrimination”.¹⁹⁸ If the owner is willing to acquire the price of his investment on the basis of the cost of investment, then it would discriminate against the users. The reason behind this is that there is a considerable gap between the cost of the investment and the actual payable price by users. This thesis suggests that this should be calculated according to the database ownership period and actual nature of the digital database. Investment in the data and time period of the ownership should be considered at the time of deciding the price of the data. As the thesis suggests this can be expressed in the following way:

$$\text{Price of the data/information} = \frac{\text{Investment upon data/information}}{\text{Time period of the ownership}}$$

¹⁹⁶ Reichman, J Franklin, ‘Privately Legislated Intellectual Property Rights: Reconciling Freedom of Contract with Public Good Uses of Information’; Herr, ‘Is the *Sui Generis* Right a Failed Experiment?’ at 30-40.

¹⁹⁷ Davison, *The Legal Protection of Databases* 242.

¹⁹⁸ Davison, *ibid.*, 242, 243.

Reichman and Franklin state that:

“In the case of access contracts, for example, price discrimination and product differentiation that benefit privileged users should quickly gain respect and become routine, as these devices often produce pro-competitive effects. Questioning the social impact of even these solutions in particular cases should remain a possibility, however”.¹⁹⁹

Apart from other databases and other real properties, the formation of a digital database itself benefits in use or reuse. However, this situation is different with real property. Davison says that:

“With the use of real estate for farming, for example, lack of property rights would lead to many using and exploiting the real estate for farming purposes, but nobody would invest in the maintenance of the farm as others would profit from that investment without contributing to it”.²⁰⁰

This means that users use the resources of the property without giving adequate contributions to its maintenance or improvements. This shows that there is an incentive for property owners to maintain his property. This situation is slightly different with digital databases. There is no extra harm or loss of usage of ‘digital’ information in digital databases. Therefore, there is no need to calculate usage as in the case of real estate. As far as supply and demand of information in digital databases cater to this situation, the price of information is fair to the owners and users which, furthermore, can be maintained by the contract. This provides the capabilities to both parties in terms of the changes according to the situation.

¹⁹⁹ Reichman, J Franklin, ‘Privately Legislated Intellectual Property Rights: Reconciling Freedom of Contract with Public Good Uses of Information’ at 957-958; *ProCD v Zeidenberg* 86 F.3d 1447 (7th Cir. 1996).

²⁰⁰ Davison, *The Legal Protection of Databases* 242.

4.6. Third party involvement

Merkin states that “[t]he law of contract as perfected in the nineteenth century was based on a model of bilateral transactions”.²⁰¹ As mentioned before, “a major difficulty that the database owner has is that the protection derived from the contract only extends to its contractual relationship between itself and the contracting party”.²⁰² It is difficult to enforce the contractual terms and conditions towards a third party who releases the data to others. This can be identified as one of the main disadvantages of the functions of the contract protection. The level of this type of misuse of data is high in terms of digital databases. The availability of digital databases online is a reason for this high risk. Issuing a licence to the third party is one of the solutions available. The European Court of Justice (ECJ) developed this notion²⁰³ in *Radio Telefis Eireann (RTE) and Independent Television Publications Ltd (ITP) v. Commission of the European Communities*.²⁰⁴ The Court held that:

“In that decision the Commission found that there had been a breach of Article 86 of the EEC [Treaty] and ordered the three organizations to put an end to that breach, in particular ‘by supplying ... third parties on request and on a non-discriminatory basis with their individual advance weekly programme listings and by permitting reproduction of those listings by such parties’. It was also provided that, if the three organizations chose to grant reproduction licences, any royalties requested should be reasonable”.²⁰⁵

²⁰¹ R Merkin, ‘Third party immunity granted under contract’ in R Merkin (ed), *Privacy of Contract* (LLP 2000) 67.

²⁰² Davison, *supra* n.200, 40.

²⁰³ *Astrazeneca AB v European Commission* [2013] 4 CMLR 7; *IMS Health GmbH & Co OHG v NDC Health GmbH & Co KG* (C-418/01) [2004] ECR I-5039.

²⁰⁴ [1995] ECR I-743, [1995] 4 CMLR 718.

²⁰⁵ *Radio Telefis Eireann (RTE)* [1995] 4 CMLR 718 at para 12.

This third party licensing process again increases the economic advantages over the digital databases. Owner and authors of digital databases can sell the licence, as this case suggests at a reasonable licence fee, to the third parties who are willing to use the information in digital database. This process further reduces the dominant position²⁰⁶ of the market which adversely affects the free flowing of the digital database market. *AstraZeneca AB v European Commission* held that:

“[A]n undertaking in a dominant position was limited or made subject to conditions in order to ensure that competition already weakened by the presence of that undertaking was not subsequently undermined was in no way an exceptional case and did not justify a derogation from art.82 EC (now art.102 TFEU)”.²⁰⁷

Another available solution is finding out the data copied through digital forensics. This²⁰⁸ is not a difficult task with modern technology. This would lead back to the party that misused the database. This brings out the possibility of making a contractual bond with the contracted second party that prevents them from releasing data to a third party. This avoids the cause of action which is not available against the third party because “it may be possible to sue the contracting party for use of the information in the database that was not authorised by the contract”.²⁰⁹

²⁰⁶ *Radio Telefis Eireann (RTE)*, [1995] 4 CMLR 718 at paras 25 40, 52 and 53.

²⁰⁷ *Astrazeneca AB v European Commission* [2013] 4 CMLR 7 at 237.

²⁰⁸ “Computer forensics involves the preservation, identification, extraction and documentation of digital evidence in the form of magnetically, optically, or electronically stored media”. JP Craiger, ‘Computer Forensics Procedures and Methods’ in H Bigdoli (ed), *Handbook of Information Security* (John Wiley & Sons 2005) 3
<<http://seclist.files.wordpress.com/2012/02/forensics-methods-procedures-final.pdf>> accessed 10 April 2013; See *inter alia* S Mason, ‘The Sources of Digital Evidence’ in S Mason (ed), *Electronic Evidence* (2nd edn, LexisNexis 2010).

²⁰⁹ Davison, *The Legal Protection of Databases* 40.

It can be observed that there are still certain difficulties in taking action against third parties. This means that the database owner needs some other form of protection that prevents access to the data in the database by anyone who does not have a contractual right to that particular access. As Davison points out:

“There are two types of protection that are applicable in such circumstances. One is the use of practical measures to prevent access to the database ... In the context of electronic databases, this will mean virtual separation of the database from others by the use of technological measures such as passwords, encryption or other means. Even this form of protection will not be effective if the cost of circumventing that protection is less than the cost of obtaining access via a contract ... it will be easier to circumvent the technological protection devices than to pay the contractual price of access. The other type of protection would be legal, making it illegal to obtain access without the database owner’s permission”.²¹⁰

This is more practical with physical databases, for example, physical libraries; in the context of electronic or digital databases, this makes virtual separation of the digital databases from others by using technological measures i.e. passwords, encryption which come under the interpretation of TPM or DRM.

In terms of legal protection:

“In the context of hardcopy databases, this can be achieved by laws of trespass, and with electronic databases, it can be achieved by laws outlawing circumvention of technological protection devices. Consequently, the database owner has to rely on both forms of protection in order to make effective use of contracts”.²¹¹

Therefore, this can be identified as a disadvantage of contract protection.

However, this can be overcome by the fact that the proposed system consists of a bundle of rights and mechanisms. Overall, the contract provides an

²¹⁰ Davison, *The Legal Protection of Databases* 41.

²¹¹ Davison, *ibid.*

acceptable level of protection for databases through TPM and DRM in both physical and virtual ways.

4.7. Conclusion

Among other protection mechanisms, a contract is a tool that can be used to regulate the access to, and use of, databases.²¹² The aforesaid usage of a contract has positive effects/advantages and negative effects/disadvantages on database protection. This Chapter has tried to apply these positive effects/advantages to the suggested mechanisms in Sri Lanka while pointing out the way to circumvent the particular negative effects/disadvantages, namely, standard form/adhesion contracts²¹³ and third party involvement.²¹⁴ To this end, this thesis proposes the notion of a digital meeting of the minds.²¹⁵

Before commissioning this proposed mechanism for the protection of digital databases, Sri Lanka has to make some amendments to its existing legal instruments in order to avoid the problems with the contract part of this proposed mechanism, for example, the Electronic Transactions Act No-19 of 2006.²¹⁶ This Act provides legal barriers and legal certainty over Sri Lankan

²¹² Davison, *ibid.*, 40.

²¹³ See this Chapter at 4.2. Standard Form / Adhesion contracts.

²¹⁴ See this Chapter at 4.6. Third party involvement.

²¹⁵ See this Chapter at 4.2.2. Digital meeting of the minds.

²¹⁶ “The Electronic Transactions Act No. 19 of 2006 is based on the standards established by United Nations Commission on International Trade Law (UNCITRAL) Model Law on Electronic Commerce (1996) and Model Law on Electronic Signatures (2001)”. GOV.LK <http://www.gov.lk/web/index.php?option=com_content&view=article&id=263&Itemid=320&lang=en> Accessed 23 October 2013; These two international instruments have provided guidance for many states when they enacted domestic laws. S Mason, *Electronic Signatures in Law* (3rd edn, Cambridge University Press 2012)153.

domestic and international practices on digital/electronic commerce.²¹⁷ The ETA aims to promote the confidence in authenticity and reliability of electronic communication.²¹⁸ In Sri Lanka all electronic transactions and electronic businesses are governed by the ETA. Nonetheless, 'Last will and Testament', Power-of-Attorney, a contract for sale or conveyance of immovable property are excepted from the recognition of this Act.²¹⁹ Provisions providing electronic contracts²²⁰ and legal recognition of electronic records provide base for the notion of digital meeting of minds²²¹ proposed by the thesis. This notion can be elaborated further according to the provisions under the electronic transactions' requirements for writing,²²² requirements for original form,²²³ legal recognition of electronic signature,²²⁴ and validity of electronic evidence.²²⁵ However, the ETA does not provide provisions for acknowledgement of foreign certification authorities.²²⁶ This brings uncertainty to the practice of e-commerce in Sri Lanka. Kariyawasam points out that:

“Nor does the Act address some highly pertinent issues integral to the development of ecommerce, such as privacy, secure electronic-payments systems, and the strengthening of data privacy. These

²¹⁷ Electronic Transactions Act, No. 19 of 2006, s 2.

²¹⁸ Electronic Transactions Act, No. 19 of 2006, s 2.

²¹⁹ Electronic Transactions Act, No. 19 of 2006, ss 23 (a),(d),(f).

²²⁰ Electronic Transactions Act, No. 19 of 2006, s 11.

²²¹ Electronic Transactions Act, No. 19 of 2006, s 3.

²²² Electronic Transactions Act, No. 19 of 2006, s 4.

²²³ Electronic Transactions Act, No. 19 of 2006, s 5.

²²⁴ Electronic Transactions Act, No. 19 of 2006, s 7.

²²⁵ Electronic Transactions Act, No. 19 of 2006, s 21.

²²⁶ K Kariyawasam, 'The growth and development of e-commerce: an analysis of the electronic signature law of Sri Lanka' (2008) 17/1 ICTL 51 at 55-56.

measures need to be addressed to facilitate a more secure electronic environment for consumers. Especially as when dealing with electronic transactions, customers are concerned about the privacy of their personal information on the Internet”.²²⁷

These drawbacks affect the operation of digital databases which involve e-commerce in Sri Lanka. Protection over customer privacy with a more secure electronic transaction environment helps to attract additional future customers and therefore increase the return on the investment in digital databases. The thesis proposes to interpret the ETA with these disadvantages in mind.

Further, the existing Prevention of Frauds Ordinance No. 7 of 1840 needs to be amended, especially Section 2. According to Section 2, “some classes of contract such as: (a) sale, purchase, transfer, etc. or mortgage of immovable property; or (b) any promise, bargain, agreement, etc. for effecting any such object or for establishing any security, interest or encumbrance, affecting immovable property; or (c) any contract, etc., for the future sale or purchase of immovable property, shall be of no force or avail in law, unless they are in writing and signed in the presence of a licensed notary public and two or more witnesses and attested”.²²⁸ As most of digital databases involve with those contracts this particular section needs to be amended accordingly. Contracts under the proposed mechanism should avoid being in conflict with statutes, common law, public policy or morality.²²⁹ Furthermore, it should function with reference to the other statutory prohibitions. For example, “Sections 11-12 of the Rubber Control Act No. 11 of 1956 which render it illegal for any person to

²²⁷ K Kariyawasam, *ibid.*, at 56.

²²⁸ Weeramantry, ‘The Law of Contracts-Volume I’ at 163-164.

²²⁹ Weeramantry, *ibid.*, at 333.

sell or purchase rubber in excess of the prescribed quantity unless he is a licensed dealer. Additionally, the Lotteries Ordinance No. 8 of 1844 provides that all lotteries are common nuisances and against the law”.²³⁰ Nowadays, a lottery sale and its control mostly depend on digital databases and, therefore, it needs to be amended accordingly in order to use this proposed mechanism.

In order to attract investment to the field of digital databases, contract protection should work with the concept of misappropriation and ‘*sui generis* rights protection’ (Article 13 of the Database Directive²³¹ confirms the simultaneous function of contractual protection and the *sui generis* right protection). Only contract protection can build up the market power of database owners or authors. Competition laws that include the concept of misappropriation to prevent the abuse of market power which leads to price fixing between database competitors, mimic the competition which affects investment. Therefore, this thesis will examine misappropriation in Chapter 5. An examination of *sui generis* rights protection can be found in Chapter 6.

²³⁰ Weeramantry, *ibid.*, at 336.

²³¹ Council Directive 96/9 EC (OJ L 077/20).

CHAPTER 5

UNFAIR COMPETITION AND MISAPPROPRIATION

5.1. Introduction

The arguments in this thesis focus on the ways of protecting digital databases in order to attract investment to Sri Lanka. The arguments lie in the *sui generis* right protection¹ which consists of a bundle of protection mechanisms. Article 13 of the EU's Database Directive allows for the protection of databases by unfair competition and contract laws in addition to *sui generis* right protection.² Under contract protection, the digital database owner first decides the terms and conditions of the contract and subsequently those terms and conditions are accepted or refused by the users. As noted in the previous Chapter,³ contract protection provides a higher level of bargaining power to digital database owners. This leads to market power which allows them to set prices above marginal cost.⁴ Therefore, protection by means of a contract increases market power. A higher level of bargaining power by database owners can lead to misuse or abuse of market power. This can be seen when there is an imbalance between owners or authors and users of digital databases.⁵ This trend further

¹ See next Chapter - 6.

² Council Directive 96/9 EC (OJ L 077/20), art. 13.

³ See Chapter 4 at 4.2. Standard Form / Adhesion contracts.

⁴ "A simple economic meaning of the term 'market power' is the ability to set price above marginal cost". WM Landes, RA Posner, 'Market Power in Antitrust Cases' (March 1981) 94/5 HLR 937 at 939.

⁵ *British Airways plc v Commission of the European Communities* [2007] 4 CMLR 22; *Magill TV Guide Ltd v Independent Television Publications Ltd* (IV/31.851) [1989] 4 CMLR 757 (CEC).

creates an imbalance in the entire digital database market which, in turn, reduces the predictability of the returns and profits of the investment. Therefore, misuse or abuse of market power undermines the attraction for investors. However, unfair competition laws, along with the concept of misappropriation, can help to prevent the abuse of market power. As a result of this prevention, the balance of the market is maintained and this helps to attract investment to the field.⁶

This Chapter begins by examining the relevance of unfair competition law and the role of misappropriation within it. In the US, as the court held in *Jerome v. Twentieth Century-Fox Film Corp*, “misappropriation probably is the key to modern unfair competition theory”.⁷ Analysis concerning the concepts of copyright and unfair competition under the first subheading reveals the possibility of simultaneous protection. Following this, the necessity for misappropriation will be discussed which will include torts such as passing off and reverse passing off.⁸ Both these concepts are economic torts and as such they are relevant to the idea of investment in digital databases. In the digital realm, passing off can be enforced against misrepresentation. Misrepresentation is one of the main ways of violating data in digital databases or digital databases themselves; on the other hand, reverse passing off is considered a mechanism which links back to the original data sources. Online digital databases inherently depend on other digital databases for processing

⁶ J Vickers, ‘Competition economics and policy’ (2003) 24/3 ECLR 95 at 96.

⁷ 58 F. Supp. 13 (SD NY 1944) cited in RE Colicchio, ‘Misappropriation as Unfair Competition’ (1954-1955) 6 SLR 317 at 317.

⁸ See this Chapter at 5.3. Passing off and 5.3.1. Reverse passing off doctrine.

and enhancing the value and/or usefulness of data. For example, Google Books is in partnership with Harvard University, Harvard University Library and University of Oxford.⁹ Data should always be credited to the original source of that data. However, the possibilities of violation could be stopped or minimised by resorting to protection mechanisms such as passing off and reverse passing off-these doctrines will be discussed later in the Chapter.¹⁰

Since reverse passing off prevents obtaining the information without prior and proper authority it could be considered as a mechanism which credits the origin of information. In the same way, the proposed Sri Lankan bundle of protection mechanisms that includes reverse passing off will credit the origin of information. Not only that, but the proposed system, using passing off and reverse passing off, also stops the misuse of other people's information.

The Chapter will then assess the French notion of parasitism. This concept is used to uncover the practices of third parties who use data from digital databases without incurring any costs. This examination will reveal the basis of French unfair competition law which depends on the principle of freedom to copy. The ability to copy is regulated by copyright, and affected by competition. This freedom to copy enhances the creativity of databases because it provides raw data for new creations. New creations may be improvements on existing databases that attract the investors as a result of which the popularity of the database has been increased.¹¹ However, this needs to be balanced with the

⁹ Google Books, 'Google Books Library Project' <<http://books.google.com/googlebooks/library/>> accessed 19 July 2013.

¹⁰ See this Chapter at 5.3. Passing off and 5.3.1. Reverse Passing off doctrine.

¹¹ DS Karjala, 'Misappropriation as a Third Intellectual Property Paradigm' (1994) 94 CLR 2594 at 2597.

principles of passing off and reverse passing off, because these principles may clash with the concept of freedom to copy. The Chapter advocates the arguments of unfair competition protection of digital databases under the subsection: 'Lessons on the protection of database from unfair competition law in the United States'. Under the arguments of this subsection, this thesis will reveal the way that a bundle of mechanisms can be set up, despite the US narrow conception of misappropriation with compare to parasitism and misappropriation. The Chapter will conclude by suggesting the use of misappropriation in Sri Lanka as part of a suggested bundle of rights and mechanisms to protect investment in digital databases.

5.2. Origin of unfair competition law

The *sui generis* protection is based on the principle of unfair competition laws.¹² Furthermore, *sui generis* protection, along with unfair competition law, can be modified to be a model for the protection of digital databases. Therefore, in this thesis, it is argued that *sui generis* right protection¹³ consists of a bundle of protection mechanisms along with copyright and unfair competition law. Furthermore, principles of unfair competition and the approach to originality and infringement of copyright show the link between unfair competition and copyright.¹⁴ An act, protected by copyright, performed without the permission of

¹² Davison, *The Legal Protection of Databases* 37.

¹³ See next Chapter - 6.

¹⁴ Davison, *The Legal Protection of Databases* 37; S Ricketson, *The Berne Convention for the Protection of Literary and Artistic Works: 1886–1986* (Centre for Commercial Law Studies, Queen Mary College, University of London 1987) at paras 9.34, 9.35 and 9.45.

the copyright owner is an offence under copyright law.¹⁵ However, the act is permitted under fair dealing,¹⁶ and so no offence is believed to have been committed.¹⁷ Unfair competition, along with misrepresentation or confusion, harms the originality which is protected by copyright. Davison notes that “[a]n important aspect of unfair competition laws that is relevant in this context [database] is the requirement or the lack of any requirement of misrepresentation or confusion”.¹⁸ This is based on the economic notion of free riding. Free riding promotes competition. However, free riders of digital databases do not credit their original information sources. This practice minimises the interest of the investment to investors. Investors expect returns, such as ‘profits, popularity and/or reputation’¹⁹ for their investment. Free riding without providing credit, these being economic or moral, to the original source of the data minimises the interest of the investment to investors because free riding harms their expected returns.

In *International News Service v. The Associated Press*,²⁰ Pitney J stated that: “Obviously the question of what is unfair competition in business must be determined with particular reference to the character and circumstances of the

¹⁵ For example- CDPA 1988, ch II ss 16-27.

¹⁶ CDPA 1988, s 29.

¹⁷ For example- IP Act of 36/2003/SL, ss 11, 12; CDPA 1988, ss 29, 30; *Hyde Park Residence v Yelland* [2000] EWCA Civ 37, [2000] 3 WLR 215; *Ashdown v Telegraph Group Ltd* [2001] EWHC Ch 28, [2001] 2 WLR 967.

¹⁸ Davison, *The Legal Protection of Databases* 38.

¹⁹ Landes, RA Posner, ‘The Economics of Trademark Law’ at 272; P Resnick *et al.*, ‘The value of reputation on eBay: A controlled experiment’ (June 2006) 9/2 EE 79 at 80.

²⁰ 248 US 215(1918).

business”.²¹ One of the main characteristics of digital databases is that it is open to free riding. Digital databases may be linked to the Internet or certain computer systems. This allows for misrepresentation or confusion. Therefore, “principles of unfair competition aim to protect fairness in competition and to secure the freedom of competition structures, thus maintaining healthy competition as the foundation of the free-enterprise system”.²² The fairness inherent in competition confirms the stability of the market which provides a protection to investors.²³

Unlike the principles of copyright, patents, contract or trademarks, the concept of unfair competition works out the interests of the competitiveness. Whether it is in the digital or physical environment, competitiveness is one of the basics of business. Competitiveness creates lower prices, wider choice, better products and greater efficiency. These notions promote the business as far as it is fair to all parties.²⁴ The fairness or unfairness is determined by equitable principles and not by the morals of the market place.²⁵ Generally, the principles and law of unfair competition also have an impact on the models for the protection of databases.²⁶

²¹ *International News Service, ibid.*, at 237; *Hitchman Coal & Coke Co. v Mitchell* 245 US 229 (1917).

²² AK Sanders, ‘Unfair Competition Law: The Protection of Intellectual and Industrial Creativity’ (PhD Thesis/ Queen Mary-University of London, Clarendon Press 1997) at 22.

²³ See Chapter 1 at 1.6.2. Link between protection and investment.

²⁴ J Vickers, ‘Competition economics and policy’ (2003) 24/3 ECLR 95 at 96; K Cseres, ‘The Controversies of the Consumer Welfare Standard’ (2007) 3/2 CLR 121 at 144-145.

²⁵ *Oneida, Ltd. v National Silver Co.* 25 NYS 2d 271, 276 (Sup. Ct. 1940); *Santa’s Workshop, Inc. v Sterling*, 282 App. Div. 328, 122 NYS 2d 488 (3rd Dep’t 1953).

²⁶ Davison, *The Legal Protection of Databases* 37; Herr, ‘Is the *Sui Generis* Right a Failed Experiment?’ at 16.

However, the UK has limited the practice of unfair competition.²⁷ In *Hodgkinson & Corby Ltd and Roho Inc. v. Wards Mobility Services Ltd*²⁸ Jacobs J held that:

“I turn to consider the law and begin by identifying what is not the law. There is no tort of copying. There is no tort of taking a man’s market or customers. Neither the market nor the customers are the plaintiff’s to own. There is no tort of making use of another’s goodwill as such. There is no tort of competition. I say this because at times the plaintiffs seemed close to relying on such torts. For instance ... ‘anything worth copying is worth protecting’”.²⁹

In the UK, unfair competition³⁰ has a small role to play in protecting databases. One of the reasons, as noted by Horton and Robertson, is that “English law has traditionally refused to deal in concepts such as fairness or good faith in business, leaving the market-place to determine its own morality without the force of legal sanction”.³¹ The digital database market is highly competitive and sophisticated. Therefore, this thesis moves away from the aforementioned UK position of fairness or good faith in business, because it does not cater to the highly sophisticated and competitive modern digital database market. This thesis will, therefore, focus on other unfair competition law torts, such as misappropriation, in order to protect digital databases.

²⁷ J Simmons, ‘Investing in Databases’ (2003) 9/2 IIS 279 at 286; RW de Vrey, ‘Towards a European Unfair Competition Law: A Clash Between Legal Families’ (PhD Thesis/ Universiteit Utrecht(Molengraaff Instituut/CIER), Koninklijke Brill NV, Leiden 2006) at 203; *Cadbury-Schweppes Ltd v Pub Squash Co Pty Ltd* [1981] RPC 429; *L’Oreal S.A. v Bellure N.V.* [2007] EWCA Civ 968 at para. 142 (per Jacob LJ); *Diageo North America Inc. & Anor v Intercontinental Brands (ICB) Ltd. and Ors* [2010] EWCA Civ 920 (per Patten LJ).

²⁸ [1995] FSR 169; *Moorgate Tobacco Co. Ltd. v. Philip Morris Ltd* (1984) 56 ALR 193.

²⁹ *Hodgkinson & Corby*, *ibid.*, at 174-175.

³⁰ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 152-153; G Dworkin, ‘Unfair competition: is the common law developing a new tort?’ (1979) 1 EIPR 242 at 242; J Adams, ‘Unfair competition: why a need is unmet’ (1992) 8 EIPR 259.

³¹ A Horton, A Robertson, ‘Does the United Kingdom or the European Community need an unfair competition law?’ (1995) 17 EIPR 568 at 568; *Walford v Miles* [1992] 2 AC 128 at 138 (per Ackner LJ).

The differences between the purposes of digital databases should be discussed in order to find a link between copyright and unfair competition torts. The purposes of different digital databases could be the same but they may be published or produced under a different name, for example, *Facebook* and *Twitter* - <<https://www.facebook.com>> and <<https://twitter.com>> respectively. The companies' mission statements³² are the same. They function as social information networks and platforms,³³ but work with different content and structure or format. Richards J, in *Hays Specialist Recruitment (Holdings) Ltd, Hays Specialist Recruitment Ltd v. Mark Ions, Exclusive Human Resources Ltd*, held that: "LinkedIn is similar in basic concept to social networking sites such as *facebook* but is designed solely for the purpose of professional networking".³⁴ In this regard, Oberst³⁵ points out the link between the functions of copyright and unfair competition torts. He argues that:

"[T]he law of copyright is involved, an author who had written and copyrighted a book or play could not prevent another author from publishing or producing a similar, though different, work with the same title as that of the first author's.³⁶ By the law of unfair competition, however, this would be wrongful passing off, if it was an attempt to appropriate to one's own benefit a title that had become

³² The company mission statement of *facebook*- "Facebook's mission is to give people the power to share and make the world more open and connected". <<https://www.facebook.com/facebook/info>> accessed 1 May 2013.

The company mission statement of *twitter*- "The fastest, simplest way to stay close to everything you care about. An information network". <<https://twitter.com/about>> accessed 1 May 2013.

³³ "[T]he 'Twitter' social networking site which fell within the description of a 'public electronic communications network'". *Chambers v Director of Public Prosecutions*, Queen's Bench Divisional Court, [2012] EWHC 2157 (Admin), [2013] 1 Cr App R 1 at 7.

³⁴ [2008] EWHC Ch 745, 2008 WL 2443198 at para 7.

³⁵ P Oberst, 'Use of the Doctrine of Unfair Competition to Supplement Copyright in the Protection of Literary and Musical Property' (1940-1941) 29 KLJ 271.

³⁶ *Glaser v St. Elmo Co.* 175 Fed. 276 (1909) at 278.

connected in the minds of the public with the work of the first author,³⁷ and could therefore be restrained”.³⁸

As Oberst argues above, the legal background behind these two digital databases needs to be examined under copyright and unfair competition torts. If one of the rights or mechanisms fails, then the other can be employed. This shows the possibility of multiple protection mechanisms which can be brought together under the bundle of protection mechanisms as suggested by this thesis.

5.3. Passing off

Passing off is performing an important role in the context of legal control over information within society.³⁹ “In addition to copyright law, the law on confidentiality, passing off, trade secrets, unfair competition law, patents and trade mark law may all play a part in the protection of databases”.⁴⁰ As this thesis identifies, digital databases consist in two parts such as data content and computer programs which used to manipulate the data in order to bring new, enhanced value and/or usefulness over the content data. The computer programs provide the structure of digital databases. This structure or content data may have their own reputation which has been recognised by the public

³⁷ *International Film Service, Inc. v Associated Producers, Inc.* 273 Fed. 585 (1921) (per Learned Hand J).

³⁸ P Oberst, ‘Use of the Doctrine of Unfair Competition to Supplement Copyright in the Protection of Literary and Musical Property’ (1940-1941) 29 KLJ 271 at 275 and footnote 28; *Paramore v Mack Sennett*, 9 Fed. (2d.) 66 (1925); *Warner Bros. Pictures v Majestic Pictures*. 70 Fed. (2d.) 310 (1934).

³⁹ *British Telecommunications plc v One in a Million* [1998] 4 All ER 476, [1998] EWCA Civ 1272.

⁴⁰ H Johnson, ‘Protection of financial databases’ (1994) 12/8 IB&FL 82 at 83.

(database users, other databases) as distinctive of such data or structure.⁴¹ In relation to the digital databases, the thesis explains passing off as where a digital database owner uses other's well reputed data or structure as their own. This practice, which might be termed misrepresentation, damages the investment of those digital databases which have well reputed data or structure. This explanation of passing off therefore helps to provide protection over investment in digital databases.

Mechanisms under the bundle in the proposed system should address the economic interests of the parties. As Carty points out: "passing off is one of the most useful of the economic torts, which though in practice normally involving deliberate harm, is in fact a tort of strict liability".⁴² Therefore, passing off can be recruited for the protection of digital databases as it protects the economic interests of the parties. Not only that, but passing off further protects the financial reputation related to the product.⁴³

In order to prove passing off, three separate elements need to be present: goodwill, misrepresentation and damage.⁴⁴ Goodwill represents the 'reputation' of the digital database which is a part of a return on the investment. Misrepresentation should damage the reputation which mirrors returns or benefits of the investment in digital databases in order to take action against the

⁴¹ *Reckitt & Colman Products Ltd. v Borden Inc. and Others* [1990] 1 WLR 491.

⁴² H Carty, *An Analysis of the Economic Torts* (2nd edn, OUP 2010) 1.

⁴³ "Springboard doctrine"- *Vestergaard Frandsen A/S and others v Bestnet Europe Limited and others* [2009] EWHC Ch 657; *Cranleigh Precision Engineering Ltd. v Bryant* [1966] RPC 81.

⁴⁴ *AG Spalding & Bros v AW Gamage Ltd* [1914] 2 Ch 405 cited in C Morcom, 'Developments in the law of passing off' (1991) 13/10 EIPR 380 at 382; J Griffiths, 'Misattribution and misrepresentation – the claim for reverse passing off as "paternity" right' (2006) 41 IPQ 34 at 42-43; *Reckitt & Colman Products Ltd. v Borden Inc. and Others* [1990] 1 WLR 491 (per Oliver LJ).

said misrepresentation. Therefore, the burden of proof of misrepresentation depends on the possibility of providing evidence of damage to the reputation. However, “what is generally held necessary in passing off is not any misrepresentation, but a misrepresentation which damages the claimant’s goodwill”.⁴⁵ This means that passing off helps to draw out the link between the benefits which have been earned from the original source of the data and the damage which has been caused to the original source of the data. Simmons notes that:

“By treating hyperlinking as a species of passing off, where the goodwill and reputation of the database creator is being appropriated by the creation of the hyperlinks, the investment of the original database maker can be protected. The quality and accuracy of the information is being guaranteed by the database maker...and embedded linking is using that guarantee to draw attention to the linker’s services and perhaps advertisers”.⁴⁶

In this way, passing off leads to the notion of objection to unauthorised use of commercially valuable reputation of the digital databases.⁴⁷ Reputation is one of the benefits which is expected by the investors.⁴⁸ In the digital database field, especially in the online database market, reputation has significant advantages to investment.⁴⁹ In general, a commercially valuable reputation⁵⁰ brings

⁴⁵ *Erven Warnink B.V. v J Townend & Sons (Hull) Ltd.* [1979] AC 73 at 105; J Davis, ‘Why the United Kingdom Should Have a Law Against Misappropriation’ (November 2010) 69/3 CLJ 561 at 563; H Carty, ‘Passing off: frameworks of liability debated’ (2012) 2 IPQ 106 at 106.

⁴⁶ J Simmons, ‘Investing in Databases’ (2003) 9/2 IIS 279 at 287.

⁴⁷ *Henderson v Radio Corps Pty* [1969] RPC 218 at 244(per Manning J); H Carty, ‘The common law and the quest for the IP effect’ (2007) 3 IPQ 237 at 238; *Weever v Brayton*, 152 Mass. 101, 25 NE 46 (1890); P Oberst, ‘Use of the Doctrine of Unfair Competition to Supplement Copyright in the Protection of Literary and Musical Property’ (1940-1941) 29 KLJ 271 at 274.

⁴⁸ Landes, RA Posner, ‘The Economics of Trademark Law’ at 272.

⁴⁹ P Resnick *et al.*, ‘The value of reputation on eBay: A controlled experiment’ (June 2006) 9/2 EE 79 at 80.

investment to the particular market as it is a part of property. Sometimes reputation could be assessed as the most significant portion of commercial property rather than any other physical or human resources in a company.⁵¹ A well known example is *Coca Cola* which has a huge commercial reputation when compared to its physical and human resource property. Providing protection over this reputation, this time in digital databases, protects the intentions or expectations of investment and attracts future investment.⁵²

5.3.1. Reverse passing off doctrine

The purpose of examination of the doctrine of reverse passing off is to find out the link between the protection of passing off and investment. When applied to digital databases, this doctrine helps to identify the source of information.⁵³ Identification of such sources makes a link between a new information user (sometimes this may be a new database) and the place where the particular information came from. The new information user, i.e. database owner, has to mention the source of the original information. This doctrine reduces the possibility of infringement of the rights of original information source holders. Protection mechanisms intend to reduce the infringement and the protection

⁵⁰ “Internet markets also have significant advantages in establishing reputations. First, any information that is gleaned can be near costlessly tallied on a continuing basis, and written assessments can readily be assembled. Second, that information can be near costlessly transmitted to millions of potential customers”. P Resnick *et al.*, *ibid.*, at 80.

⁵¹ S Tadelis , ‘What’s in a Name? Reputation as a Tradeable Asset’ (February 1998) Working Paper No. 97-033 University of California, Berkeley - Haas School of Business (Internet) at 2 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=73868> accessed 31 May 2013; CJ Fombrun, *Reputation: Realizing value from the corporate image* (Harvard Business Press 1996) 86.

⁵² See Chapter 1 at 1.6.2. Link between protection and investment.

⁵³ See *inter alia* BA Karl, ‘Reverse Passing Off and Database Protections: *Dastar Corp. v Twentieth Century Fox Film Corp.*’ (2003) 9 BUJSTL 481.

mechanism consequently attracts investment. Minimal levels of infringement maximise the level of profit and therefore attract investment. On the other hand, reverse passing off helps to find out who is using information and what benefit they are getting from the information. This helps to calculate the actual loss to the original information sources or databases. The benefit of the illegal use of information is similar to the actual loss to the original information source. With these protections, investors are more protected and more incentivised to invest.

Reverse (Inverse⁵⁴) passing off means that one producer trades another's product under his own trademark.⁵⁵ It is the opposite of the traditional passing off infringement.⁵⁶ It is also one of the ways of misappropriating a digital database. For example, X's digital database (digital database X) consists of X's own structure and format and data which could have been imported from the content of Y's digital database (digital database Y which has Y's own data structure and format that may be different from X's structure and format).

⁵⁴ “[I]nverse’ passing off might serve as an avenue for protecting creative artists against misattribution of their works, in the absence of a ‘paternity right’. Interestingly, he argues that this would not expand the tort into one of misappropriation as cases of “inverse” passing off still require an actionable misrepresentation”. J Griffiths, ‘Misattribution and misrepresentation - the claim for reverse passing off as “paternity’ right”’ (2006) 41 IPQ 34 at 49–52; J Davis, ‘Why the United Kingdom Should Have a Law Against Misappropriation’ (November 2010) 69/3 CLJ 561 at 572; *Matthew Gloag and Son Ltd v Welsh Distilleries Ltd* [1998] FSR 718 at 724 (per Laddie J).

⁵⁵ *Bristol Conservatories Ltd. v Conservatories Custom Built Ltd* [1989] RPC 455; *O. & W. Thum Co. v Dickinson*, 245 F. 609, 621 (CA6 1917); *Dastar Corp. v Twentieth Century Fox Film Corp.*, 539 US 23 – Supreme Court 2003.

⁵⁶ “Thus, in the passing off situation, a producer sells its goods under the pretense that such goods were manufactured by its competitor, whereas in the reverse passing off context a producer sells its competitor's goods as its own. Reverse passing off may be accomplished ‘expressly’ or ‘impliedly.’ ‘Express’ reverse passing off occurs when a producer removes a competitor's trademark and replaces it with the producer's own mark. Reverse passing off is accomplished ‘impliedly’ when a producer merely removes or obliterates a competitor's trademark”. LH Freedman, ‘Reverse Passing Off: A Great Deal of Confusion’ (1993) 83 TR 305 at 305; *Williams v Curtiss-Wright Corp.*, 691 F. 2d 168, 172 (CA3 1982).

In practice, the reverse passing off doctrine requires the database creator to mention the source of information. As mentioned above, information in a digital database may come from another database. This process is speeded up by digital formation and involvement of computer programs in digital databases. In relation to the US experience, Justice Scalia held that:

“Although a case can be made that a proper reading of § 43(a), as originally enacted, would treat the word ‘origin’ as referring only ‘to the geographic location in which the goods originated,’ the Courts of Appeals ... the Sixth Circuit, unanimously concluded that it ‘does not merely refer to geographical origin, but also to origin of source or manufacture,’ thereby creating a federal cause of action for traditional trademark infringement of unregistered marks”.⁵⁷

The reverse passing off doctrine gives credit to the original place or digital database where the information was first created. Therefore, digital database owners have to mention the origin of the source or the manufacture of the data, otherwise, “[b]y claiming the claimant’s quality as his own, the defendant clearly seeks to divert sales from the real producer or source of the quality claimed”.⁵⁸

In the UK case, *Cambridge University Press v. University Tutorial Press*, the defendant was considered as not to have represented his products as the plaintiff’s and therefore the claim failed.⁵⁹ The representation is the critical point, in both *Cambridge University Press v. University Tutorial Press* and *Tallerman v. Dowsing*⁶⁰ this was so, and this guides the doctrine of passing off through to

⁵⁷ *Dastar Corp. v Twentieth Century Fox Film Corp.*, 539 US 23 – Supreme Court 2003 at 29-30; *Two Pesos, Inc. v Taco Cabana, Inc.*, 505 US 763 (1992) (per Stevens J); *Federal-Mogul-Bower Bearings, Inc. v Azoff*, 313 F. 2d 405 (1963).

⁵⁸ H Carty, *An Analysis of the Economic Torts* (2nd edn, OUP 2010) 244.

⁵⁹ *Cambridge University Press v University Tutorial Press* (1928) 45 RPC 335 (per Maugham J) cited in H Carty, ‘Inverse passing off: a suitable addition to passing off?’ (1993) 15/10 EIPR 370 at 370.

⁶⁰ (1900) 1 Ch 1.

the modern day.⁶¹ The reverse passing off protection maintains the credibility of the digital database market which helps to attract investors to the field. This credibility comes from the database owner's 'good will, good name and reputation'⁶² which are expected to be protected by the reverse passing off doctrine as mentioned in *CIR v. Muller & Co's Margarine Ltd.*⁶³

Furthermore, this doctrine of reverse passing off goes hand in hand with the different nature of database protection which comes under the purview of the proposed bundle of protection mechanisms in the present thesis. According to the proposed system, different mechanisms and rights protect different components of the digital database. For example, copyright protects the content of databases⁶⁴ while a patent might protect the computer programs in addition to copyright.⁶⁵ Hence, this proposed system needs to work out the mutual working environment among the mechanisms for the smooth function of the system. Justice O'Connor, when delivering the judgement of the Supreme Court of the United States in *Feist*, held that "[t]o this end, copyright assures authors the right to their original expression, but encourages others to build freely upon the ideas and information conveyed by a work".⁶⁶ This means that copyright fails to provide protection against free riding. In this situation, unfair competition law doctrines, such as passing off and reverse passing off, are helpful because

⁶¹ *Reckitt & Colman Products Ltd. v Borden Inc. and Others* [1990] 1 WLR 491 at 496 (per Oliver LJ); *Erven Warnink B.V. v J. Townend & Sons (Hull) Ltd.* [1979] AC 731, [1980] RPC 31.

⁶² *CIR v Muller & Co's Margarine Ltd* [1901] AC 217 at 223 (per Macnaghten LJ).

⁶³ H Carty, *supra* n.59, at 371.

⁶⁴ See Chapter 2.

⁶⁵ See Chapter 3.

⁶⁶ *Feist Publications, Inc. v Rural Telephone Service Co.*, 499 US 340 (1991) at 349-350.

they provide protection against that free riding. However, in *Feist* the copyright protection:

“[K]nown as the idea/expression or fact/expression dichotomy, applies to all works of authorship. As applied to a factual compilation, assuming the absence of original written expression, only the compiler’s selection and arrangement may be protected; the raw facts may be copied at will. This result is neither unfair nor unfortunate. It is the means by which copyright advances the progress of science and art”.⁶⁷

In this situation the Supreme Court of the United States tried to comply with the provisions of Article 1 of its Constitution.⁶⁸ This may be problematic in the jurisdictions that do not have a provision which concerns ‘the progress of science and art’.⁶⁹ Therefore, as this thesis suggests, a bundle of rights and mechanisms which consist of copyright and unfair competition law doctrines would provide a preferred level of protection.

However, *Feist* case depended on the Constitution rather than the Copyright Act. The constitutional clauses are not flexible compared to the other legal instruments. Constitutional clauses limit the possibility of database protection with the support of other constitutional clauses. Karl notes that:

“The Court reasoned that the text of the Intellectual Property Clause mandated originality as ‘a constitutional requirement’. This requirement limits Congress’s ability to protect databases by using other clauses of the Constitution. The Commerce Clause may not be used to make an end-run around the Intellectual Property Clause. However, Congress does have some latitude in protecting against the harms that unfair competition produces - consumer confusion and harm to producers’ reputational interests. The Court has recognized that Congress may protect against a copier using a

⁶⁷ *Feist Publications, Inc. Ibid.*, at 349-350; *Harper & Row, Publishers, Inc., Et Al. v Nation Enterprises Et Al.* 471 US 539 (1985).

⁶⁸ The Constitution of the United States, Article 1, Section 8.

⁶⁹ The Constitution of the United States, Article 1, Section 8.

confusingly similar trademark to market a copy of a product no longer protected by patent”.⁷⁰

However, Karl provides a counter-argument to his own argument by stating that “traditional trademark infringement creates significantly different harms than reverse passing off”.⁷¹ In general, passing off is an option used for traditional trademark infringement. A comparison of trademark infringement and passing off shows that passing off is stronger than trademark infringement. Therefore, passing off may be utilised as part of protection under unfair competition for the protection of digital databases.

However, the US position in this regard “has already moved towards a policy of *sui generis* database protection by introducing database legislation to restore the policies rejected in the *Feist* decision”.⁷² The said legislation has been criticized on both policy and constitutional grounds.⁷³ This thesis will examine the *sui generis* right database protection in the next Chapter.

⁷⁰ BA Karl, ‘Reverse Passing Off and Database Protections: *Dastar Corp. v Twentieth Century Fox Film Corp.*’ (2003) 9 BUJSTL 481 at 487.

⁷¹ BA Karl, *ibid.*, at 487.

⁷² BA Karl, *ibid.*, at 488.

⁷³ BA Karl, *ibid.*, at 488; Y Benkler, ‘Constitutional Bounds of Database Protection: The Role of Judicial Review in the Creation and Definition of Private Rights in Information’ (2000) 15 BTLJ 535; M Pollack, ‘The Right to Know?: Delimiting Database Protection at the Juncture of the Commerce Clause, the Intellectual Property Clause and the First Amendment’ (1999) 17 CAELJ 47; W Patry, ‘The Enumerated Powers Doctrine and Intellectual Property: An Imminent Constitutional Collision’ (1999) 67 GWLR 359.

5.4. The theory of parasitism and its applicability to the proposed Sri Lankan protection system

The doctrines of passing off and reverse passing off lead this research towards the examination of the concept of parasitism: “Parasitism occurs when a third party, without incurring any expenditure, uses the fruit of the effort made by another by following in [his]/her work”.⁷⁴ Derclaye notes that:

“French commentators have argued that there is reason to believe that French courts in their determination of the substantiality of the investment will use unfair competition principles. This is because the sui generis right is a codification of parasitism or slavish imitation, a branch of unfair competition law. In this view, what will be taken into consideration is not the absolute value of the investment but rather the importance of the investment saved by the copier”.⁷⁵

As Jacob LJ noted in *L’Oreal SA v Bellure NV*,⁷⁶ the concept of “taking unfair advantage of the distinctive character or the repute of the trade mark, also referred to as ‘parasitism’ or ‘free-riding’, that concept relates not to the detriment caused to the mark but to the advantage taken by the third party as a result of the use of the identical or similar sign”.⁷⁷ To a very real extent, this means that the ‘parasite’ is benefiting from the initial investment made and this links back to the need to protect investment discussed in this thesis.

⁷⁴ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 155.

⁷⁵ E Derclaye, ‘Database sui generis right: what is a substantial investment? A tentative definition’ (2005) 36 IRIPCL 2 at 24.

⁷⁶ *L’Oréal SA, Lancome Parfums et Beaute & CIE, Laboratoire Garnier & CIE v Bellure NV, Malaika Investments Ltd (t/a HoneyPot Cosmetic & Perfumery Sales), Starion International Ltd* [2010] EWCA Civ 535, [2010] WL 1990595.

⁷⁷ *L’Oréal SA, ibid.*, [2010] EWCA Civ 535 at para 49; *Specsavers International Healthcare Ltd, Specsavers BV, Specsavers Optical Group Ltd, Specsavers Optical Superstores Ltd v Asda Stores Ltd* [2012] EWCA Civ 24; *Waseem Ghias t/as Griller v Mohammed Ikram t/as The Griller Original, Esmail Adia t/as Griller King, Shahzad Ahmad t/as Griller Hut, Griller Original Limited, Griller Hut Limited* [2012] EWPC 3.

The concept of unfair competition cannot be found as a discrete area in the United Kingdom.⁷⁸ However, in relation to trade marks, a similar legal idea can be found in Sections 5(3) and 10(3) of the Trade Marks Act 1994 in addition to Passing Off. Nevertheless, the French legal system is based on the unfair competition law which depends on the principle of freedom to copy.⁷⁹ The French principle of freedom to copy confirms the freedom of commerce and industry which maintain lawful competition and the free flowing of industry. The two notions i.e. lawful competition and free flowing of industry along with the intellectual property rights help towards the smooth functioning of the industry. Lawful competition maximises the benefits of investment as it confirms a better deal between traders and customers.⁸⁰ This helps to maintain the attraction of the investment in the field of digital databases. Parasitism promotes the notion that “every competitor has the right to attract the customer of their competitors”.⁸¹ As with ‘the US doctrine of hot news’,⁸² digital information and

⁷⁸ “English law does not have a tort of unfair competition”. A Horton, A Robertson, ‘Does the United Kingdom or the European Community need an unfair competition law?’ (1995) 17 EIPR 568; G Dworkin, ‘Unfair competition: is the common law developing a new tort?’ (1979) 1 EIPR 242; A Terry, ‘Unfair competition and the misappropriation of a competitor’s trade values’ (1988) 51 MLR 296; P Burns, ‘Unfair competition: a compelling need unmet’ (1981) 11 EIPR 311; J Adams, ‘Unfair competition: why a need is unmet’ (1992) 8 EIPR 259.

⁷⁹ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 153-154; E Derclaye, ‘Recent French decisions on database protection: Towards a more consistent and compliant approach with the Court of Justice’s case law?’ (2012) 2 EJLT (Internet) <<http://ssrn.com/abstract=1989031>> accessed 12 March 2013.

⁸⁰ “Competition is the process of rivalry between businesses seeking to win customers’ business over time by offering them a better deal”. - A Quick Guide to UK Merger Assessment of the UK Office of Fair Trading and Competition Commission (Internet) <<http://www.competition-commission.org.uk>> accessed 27 May 2013.

⁸¹ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 154.

⁸² *International News Service v Associated Press* 248 US 215 (1918); *National Basketball Association v Motorola, Inc.* 105 F.3d at 841; DL Applegate, R Schermerhorn, ‘Hot News: The “Hot-News” Doctrine Is Hot Again! Or Is It?’ (November 2011) 12/3 JFSPG (Internet)

digital databases are highly competitive in the business field. Therefore, parasitism along with the right to attract the customers of other competitors shapes up the competitiveness of the digital databases market. Digital databases linked to the Internet have a high level of accessibility and are able to have their data disseminated widely. These features create more competition among digital databases and this needs to be shaped up with the unfair competition principles. Therefore, a protection system based on unfair competition when discussed with parasitism provides stability for the proposed system.

Considering liability for parasitism, the action, such as the breach, copying and the vague notion of commercial turmoil,⁸³ is significant as it does not require confusion and “advantage can be taken of another’s actions even outside of the senior user’s field of activity. It might be thought difficult to identify the damage in cases of parasitism”.⁸⁴ In *SARL Parfum Ungaro v SARL JJ Vivier*, the Paris Court of Appeal noted that parasitism:

“[I]s an economic parasitism which, as in the animal world, can be analysed as the taking of the substance of another who will therefore be impoverished and will sometimes be caused to die. The advantages of parasitism are equal to the investments made by its victims”.⁸⁵

<http://www.fed-soc.org/publications/detail/hot-news-the-hot-news-doctrine-is-hot-again-or-is-it> accessed 28 May 2013.

⁸³ Cass. com., 22.02.2000 [2000] CCC, com. 81, comment of Malaurie- Vignal; Cass. com., 25.04.2001 [2001] *PIBD* 726, III, 451, *Guerlais v Tillaud Boisouvres*, Cass. com., 01.07.2003, Juris-data no. 2003–019892 cited in Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 156.

⁸⁴ IS Fhima, ‘Exploring the roots of European dilution’ (2012) 1 IPQ 25 at 33.

⁸⁵ *SARL Parfum Ungaro v SARL JJ Vivier* Paris May 18, 1989, D.1990 340 cited in L Logan, ‘The Emperor’s New Clothes? The Way Forward: TV Format Protection under Unfair Competition Law in the United States, United Kingdom and France: Part 2’ (2009) 20/3 ELR 87.

Investment in digital databases is protected by the notion of parasitism because it evaluates the harm equal to the advantage achieved by the third party. In this scenario, owners and authors of digital databases do not show the amount of investment that they have made from the enhancement of value of the data in the database. The advantage which is achieved by the third party through the parasitism itself denotes the amount of investment in information made by the owners and authors of digital databases. Similar reasoning behind this argument can be found in Fhima's observations:

"[A]lthough the benefit to the junior user was highlighted, the court particularly focused on the harm that the senior user would suffer, based on his investment in his product. *Yves St Laurent v Ralph Lauren*, where in finding unfair competition on the part of Ralph Lauren for copying one of Yves St Laurent's designs, the court focused on Yves St Laurent's investment,...in developing the dress".⁸⁶

Derclaye argues that:

"It is not necessary to prove a loss of turnover or of clients, unless the creator seeks damages. In addition, there is a possibility of taking legal action even when damage has not yet been caused in order to prevent a damage being caused. As far as causation is concerned, as unfair competition acts do not always lead to a decreased turnover, courts are flexible on the certainty of the causation and often skip the requirement altogether".⁸⁷

Therefore, it can be observed that the Courts have acted in a flexible way to decide damages on the notion of parasitism and this may cause the database to become more popular. The reason behind the above principle is that the French unfair competition law, along with parasitism, is based on the notion of freedom

⁸⁶ IS Fhima, 'Exploring the roots of European dilution' (2012) 1 IPQ 25 at 34.

⁸⁷ E Derclaye, 'Can and should misappropriation also protect databases? A comparative approach' in P Torremans (ed), *Copyright Law-A Handbook of Contemporary Research* (Edward Elgar 2007) 91.

to copy which means freedom to copy and reproduce other's creations.⁸⁸ This French practice increases the number of competitors which consequently increases the popularity of the database and, as a result, helps to attract investors to the field.

5.5. Infringement and unfair competition

Derclaye has raised the question whether the *sui generis* right holder has a choice between the infringement and unfair competition.⁸⁹ This thesis suggests a bundle of rights which consists of *sui generis* protection and unfair competition so it is important to find a firm answer to this question. This is because "the *sui generis* right is a codification of parasitism or slavish imitation, a branch of unfair competition law,"⁹⁰ a substantial investment requirement links those concepts together. However, she observes that "having a choice can lead to over-protection because the conditions of the unfair competition action for parasitism are less stringent than those of the *sui generis* right".⁹¹ The *sui generis* right was a newly-created concept in European law⁹² and not a derivative limb of unfair competition law. Furthermore, "ideas can be protected by the *sui generis* right if they represent a qualitatively substantial investment and it suggests that quality

⁸⁸ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 154.

⁸⁹ Derclaye, *ibid.*, 164.

⁹⁰ E Derclaye, 'Database *sui generis* right: what is a substantial investment? A tentative definition' (2005) 36 IRIPCL 2 at 23.

⁹¹ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 164; This research does not intend to find out the notion of over-protection or insufficiency of protection over the databases.

⁹² PB Hugenholtz, 'The new database right: early case law from Europe' (The 9th Annual Conference on International Intellectual Property Law and Policy, University of Fordham, 19-20 April 2001) at 1, 4. The IVIR website <<http://www.ivir.nl/files/database/index.html>> or <<http://www.ivir.nl/publications/hugenholtz/fordham2001.pdf>> accessed 12th March 2013.

is to be judged by the variable of the user's interest".⁹³ Therefore investment must be substantial.⁹⁴ Hugenholtz, with reference to the Recital 40, notes that "[t]he most databases will probably result from a quantitative investment, involving the deployment of financial resources and/or the expanding of time, effort and energy".⁹⁵

Database protection based upon the *sui generis* right depends on the quantitative substantial investment⁹⁶ while "the unfair competition action is not or should not be a substitute for the infringement action".⁹⁷ Therefore, the *sui generis* right holder is not allowed to select between an action of infringement and an action of unfair competition.

In terms of the case law, the answer to the question whether there is an option between the infringement and unfair competition, is not very clear. Case law has clashed with the above mentioned position in law, i.e. the *sui generis* right holder is not allowed to select between an action of infringement and an action of unfair competition.⁹⁸ The case law does not take a consistent position on the *sui generis* right. A study of different case law will show that courts⁹⁹ have taken

⁹³ E Derclaye, *supra* n.90, at 27.

⁹⁴ PB Hugenholtz, *supra* n.92, at 2.

⁹⁵ PB Hugenholtz, *ibid.*

⁹⁶ TM Sanks, 'Database Protection: National and International Attempts to Provide Legal Protection for Databases' (1998) 25 FSULR 991 at 998.

⁹⁷ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 164.

⁹⁸ Derclaye, *ibid.*, at ch-3.2 164ff.

⁹⁹ Tribunal of Commerce/Valenciennes in *Encyclope'die Douanière v Conex et Agence fiscale* 20.01.1998 [1998] *Expertises* 196, TGI (Tribunal de grande instance de Lyon) in *Le Serveur Administratif v Editions Législatives* 28.12.1998 [1999] *RIDA*, no. 181, and the Court of Appeal/Lyon in *Le Serveur Administratif v Editions Legislatives* 22.06.2000 [2001] *Prop. Int.* cited in E Derclaye, 'Can and should misappropriation also protect databases?

different views on this. In the French case, *Le Serveur Administratif v Editions Législatives*,¹⁰⁰ “Les Editions Legislatives’ dictionary including 400 collective conventions was reproduced almost identically by Le Serveur Administratif”.¹⁰¹ However, the *sui generis* right protection was not discussed here.

Infringement can be seen in different ways. Action of infringement and an action of unfair competition make this difference. “[T]he intellectual property right holder can bypass the stricter conditions of the intellectual property rights by acting in unfair competition instead”.¹⁰² Hence, the proposed system suggests a bundle of right which can be employed directly to avoid said bypassing.

According to the experience in Europe, unfair competition has functioned differently in different legal systems. While the UK does not have an action of simultaneous over-protection of databases, in France (under the French legal system) there is such an action. Derclaye notes that this shows a lack of harmonisation across Europe in this area and that “to avoid over-protection of databases, the Database Directive should be amended to make clear that the *sui generis* right has absorbed parasitism as far as databases are concerned”.¹⁰³ This thesis also takes this position in relation to setting up the proposed digital database protection mechanism in Sri Lanka. As one of the

A comparative approach’ in P Torremans (ed), *Copyright Law-A Handbook of Contemporary Research* (Edward Elgar 2007) 105.

¹⁰⁰ *Le Serveur Administratif v Editions Législatives*, TGI Lyon, 28.12.1998 [1999] *RIDA*, no. 181, 325; [1999] *RTD Com.* 52(4), 866–869, comment by Françon, *aff’d* CA Lyon, 22.06.2000 [2001] *Expertises* 74–8; [2001] *Prop. Int.* 54–5, comment Sirinelli. cited in E Derclaye, *ibid.*, 105.

¹⁰¹ E Derclaye, *ibid.*, 105.

¹⁰² E Derclaye, *ibid.*, 106.

¹⁰³ E Derclaye, *ibid.*, 107.

main themes of this research, *sui generis* protection in the proposed system should include parasitism.

5.6. Lessons on the protection of databases from unfair competition in the United States

This thesis discusses the individual experiences in three different jurisdictions: the US, the EU and the UK pertaining to the relevant features with a view to setting up a legal framework offering the best possible protection for digital databases in Sri Lanka. However, this thesis does not compare the above mentioned jurisdictions, but will analyse their salient features as appropriate in order to organize them into one proposed mechanism. At this point, the thesis turns to the United States. In this jurisdiction, one of the torts under the name of unfair competition is misappropriation.¹⁰⁴ This is a broad, anti-copying common law doctrine. Ginsburg notes that “[t]he misappropriation doctrine potentially is available whenever a person imitates or duplicates a work developed at the expense of another”.¹⁰⁵

¹⁰⁴ This tort was found by the *International News Services v Associated Press (INS)* 248 US 215 (1918); A Horton, A Robertson, ‘Does the United Kingdom or the European Community need an unfair competition law?’(1995) 17/12 EIPR 568 at 573; G Calabresi, AD Melamed, ‘Property Rules, Liability Rules, and Inalienability: One View of the Cathedral’ (1972) 85 HLR 1089; SJ Jong, J Park, ‘Property versus Misappropriation: Legal Protection for Databases in Korea’ (2002) 8 JLP 75 at 77.

¹⁰⁵ JC Ginsburg, ‘Copyright, Common Law, and Sui Generis Protection of Databases in the United States and Abroad’ (1997-1998) 66 UCLR 151 at 157; DE Shipley, ‘Refsing to Rock the Boat The Sears/Compco Preemption Doctrine Applied to *Bonito Boats v Thundercraft*’(1990) 25 WFLR 385 at 413; *International News Service v Associated Press* 248 US 215 (1918).

Having considered different reasons, Derclaye argues that misappropriation is a very unreliable protection for database producers.¹⁰⁶ Her argument shows that a bundle of protection systems is more appropriate than just one system. This can be compared with the highly time-sensitive digital databases in order to assess the practicality of her argument. Time sensitive data can be seen in, for example air-traffic control digital databases. As the US Supreme Court stated in *Feist* where facts in wire stories (news) were 'hot' for hours, sports scores are 'hot' for minutes.¹⁰⁷ 'Hot news' can be seen from the traditional mode/form, such as in *International News Service v. Associated Press*¹⁰⁸ or in digital databases which connect to a communication system such as in *National Basketball Assoc. v. Motorola, Inc.*¹⁰⁹ Ginsburg notes that:

“[M]isappropriation claims, to the extent they survive copyright preemption analysis, do not afford complete coverage of compiled information because they are, at most, and limited to time-sensitive compilations. Static compilations, and even dynamic compilations that lack time-sensitivity, fall outside the claim’s ambit. Contract law may afford a state claim of more general application to fill the gap”.¹¹⁰

¹⁰⁶ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 231; Estelle Derclaye provides four reasons such as 'misappropriation is does not exist in all US states,' 'clashes with copyright laws,' 'nobody still knows what the law is until the Supreme Court rules' and 'the *National Basketball Association v Motorola (NBA)* 105 F. 3d 841 (2d Cir. 1997) ruling in itself lacks clarity as to the exact conditions under which a misappropriation action will succeed'. Derclaye, *ibid.* 231.

¹⁰⁷ J Band, 'The database debate in the 108th US Congress: the saga continues' (2005) 27/6 EIPR 205 at 208; For example - *ESPNcricinfo*. This is "the world's leading cricket website and among the top five single-sport websites in the world. This content includes news, *live ball-by-ball coverage* of all Test and one-day international matches and features written by some of the world's best cricketers and cricket writers. The site also includes in-depth statistics on every one of the 3000 international and 50,000 first-class cricketers to have played the game. It has over 20 million users every month". *ESPNcricinfo* <<http://www.espnricinfo.com/ci/content/page/156066.html>> accessed 12th March 2013.

¹⁰⁸ 248 US 215 [39 S.Ct. 68, 63 L.Ed. 211] (1918).

¹⁰⁹ 105 F 3d 841 (2nd Cir, 1997).

¹¹⁰ JC Ginsburg, 'Copyright, Common Law, and Sui Generis Protection of Databases in the United States and Abroad' (1997-1998) 66 UCLR 151 at 164.

As Circuit Judge Learned Hand noted in *Cheney Bros. v. Doris Silk Corporation*,¹¹¹ fashion designs also have a short life (time sensitive). Therefore, they have a commercial value only over a short life. For instance, 'winter cloths' can be sold out in the next winter or after that.¹¹² However, commercial value in some of the data in a digital database is highly time sensitive. For example commercial value of the hot news would not be the same over all the time. In this regard Ginsburg states that:

"Copyright is not synonymous with commercial value, and not everything that might be the subject of a license is a subject of copyright. Here, the value is not so much in the content as in the timing of its delivery. The same stock quote information one hour later is worthless".¹¹³

Hence, protection of digital databases must consist of a bundle of mechanisms which can be used according to the situation and when and where each of them fails to provide the appropriate protection. Once replaces the negative effects of others in digital database protection.

The protection of databases in the United States has been divided into two categories, before and after the decision of *Feist Publications, Inc. v. Rural Telephone Service Co.*:¹¹⁴ "After *Feist*, database owners strengthened their contractual protections by restricting the manner in which the database is used. For example, databases accessed through the Internet may contain restrictions

¹¹¹ 35 F.2d 279 (2nd Cir. 1929).

¹¹² See *inter alia* C Barrere, S Delabruyere, 'Intellectual property rights on creativity and heritage: the case of the fashion industry' (2011) 32/3 EJLE 305.

¹¹³ JC Ginsburg, *supra* n.110, at 163.

¹¹⁴ *Feist Publications, Inc. v Rural Telephone Service Co.* 499 US 340 (1991) at 345.

for downloading and redistributing the database's contents".¹¹⁵ This example reflects one of the main themes of this research, the digital features of databases and the appropriateness of the bundle of mechanisms for the protection of digital form of data. Accordingly, contract and misappropriation come out from the said proposed bundle to protect such data. It is observed that appropriate scale and the type of the creativeness needed to ensure the copyright protection have been considered in most of the lawsuits related to copyright infringement of databases, after the *Feist* case.¹¹⁶ As this thesis identifies, copyright protects the investment in databases.¹¹⁷ In particular, "even though some scholars argued that investment will not be protected by misappropriation,"¹¹⁸ "opponents argued either contractual protections, technological protections, or state misappropriation laws will be sufficient to protect database investments".¹¹⁹ Freno notes that:

"Therefore, although current contractual, technological, and state misappropriation protections provide hints of security to database proprietors, they offer only the faintest hope of protecting huge investments in data compilation and maintenance".¹²⁰

¹¹⁵ TM Sanks, 'Database Protection: National and International Attempts to Provide Legal Protection for Databases' (1998) 25 FSULR 991, 1001-1003, 1008. cited in M Freno, 'Database Protection: Resolving the U.S. Database Dilemma with an Eye Toward International Protection' (2001) 34 CILJ 165 at 192.

¹¹⁶ M Freno, *ibid.*, at 169.

¹¹⁷ See Chapter 2.

¹¹⁸ "A second type of argument made by opponents to database legislation is that adequate alternative forms of protection are available". WM Wayman, 'International Database Protection: A Multilateral Treaty Solution to the United States' Database Dilemma' (1997) 37 SCLR 427 at 436 cited in M Freno, *supra* n.115, at 191.

¹¹⁹ TM Sanks, 'Database Protection: National and International Attempts to Provide Legal Protection for Databases' (1998) 25 FSULR 991 at 1010.

¹²⁰ M Freno, *supra* n.115, at 194.

Therefore, a bundle of mechanisms would be an appropriate solution for the protection of investment in digital databases. Each mechanism has its own disadvantages in relation to the protection of investment. Mechanisms, such as technological solutions, encryption, password, watermarks may increase the expense of protection of digital databases.¹²¹ This consequently affects the financial profits of the database which may thus reduce the investment in the database itself: “In short, the unfounded suggestion that current misappropriation laws can protect databases is wishful thinking”.¹²² One of the lessons that can be learnt from these experience is that there should be a bundle of protection systems rather one tort or law on the protection of digital databases. This observation directs this research towards the protection mechanism which relates to the *sui generis* right¹²³ regime. This will be examined extensively in the next Chapter.¹²⁴

The preamble of the EU Database Directive¹²⁵ also addresses the protection of investment in databases. In this regard, misappropriation can be employed to

¹²¹ TM Sanks, *supra* n.119, at 1009.

¹²² M Freno, *supra* n.115, at 194.

¹²³ “On March 11, 1996, the European Union, seeing a need for more protection, promulgated Directive 96/9 Concerning the Legal Protection of Databases, to provide copyright-like protection to databases. This directive provides a double layer of protection. The first layer, covering creative databases, is grounded in copyright law, whereas the second layer, covering non-creative databases, is anchored in a *sui generis* right. ‘The *sui generis* right was based on the Scandinavian states’ ‘Catalog rule’ from the 1960’s, which granted to non-copyrightable compilations short-term protection against reproduction and identical imitation”. M Schneider, ‘The European Union Database Directive’(1998) 13 BTLJ 551 cited in M Freno, *supra* n.115, at 182; MJ Bastian, ‘Protection of “noncreative” Databases: Harmonization of United States, Foreign and International Law’ (1999) 22 BCICLR 425 at 440.

¹²⁴ See Chapter 6.

¹²⁵ Council Directive 96/9 EC (OJ L 077/20).

save the investment made by database owners and authors.¹²⁶ Thakur notes that:

“The Directive has two major aspects...the harmonisation of database copyright law throughout the E.C., and the creation of a new *sui generis* right, with many copyright-style features but a much shorter term of protection. This is intended to protect the position of makers of databases against the misappropriation of the results of their financial and professional investment in database’s contents”.¹²⁷

However, as regards the US experience, in *National Basketball Assoc. v. Motorola, Inc.*,¹²⁸ misappropriation creates a free-riding situation which reduces the incentives of investment for database owner and authors. Circuit Judge Winter stated that:

“We hold that the surviving ‘hot-news’ INS-like claim is limited to cases where: (i) a plaintiff generates or gathers information at a cost; (ii) the information is time-sensitive; (iii) a defendant’s use of the information constitutes free-riding on the plaintiff’s efforts; (iv) the defendant is in direct competition with a product or service offered by the plaintiffs; and (v) the ability of other parties to free-ride on the efforts of the plaintiff or others would so reduce the incentive to produce the product or service that its existence or quality would be substantially threatened”.¹²⁹

This was identified as a narrow conception of misappropriation when compared to the theory of parasitism and the *sui generis* right protection under the Database Directive.¹³⁰ The *sui generis* right provided by the Database

¹²⁶ Council Directive 96/9 EC (OJ L 077/20), recital 39.

¹²⁷ N Thakur, ‘Database protection in the European Union and the United States: the European Database Directive as an optimum global model?’ (2001) 1 IPQ 100 at 110; R Carolina, ‘The European Database Directive: An Introduction for Practitioners’ (1997) 8/9 JPR 17.

¹²⁸ 105 F.3d 841 (2nd Cir. 1997).

¹²⁹ *National Basketball Assoc.*, *ibid.*, at para 16.

¹³⁰ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 232.

Directive¹³¹ creates an intellectual property right which goes much further than the copyright laws of most nations.¹³² This is consistent with this research which suggests that the *sui generis* right protection consists of other possible protection mechanisms.

5.7. Conclusion

The applicability of unfair competition law and misappropriation depends on the particular case.¹³³ Colston notes that:

“[T]he state remedy against misappropriation strikes the right balance between access and protection, particularly as any initiative needs to be adaptable until the extent of any market failure in an emerging industry is known. Misappropriation has the advantage of only being applied within the context of specific cases. Any case law emerging could then be drawn upon in the future by legislators”.¹³⁴

However, as observed throughout this Chapter, unfair competition law encourages healthy competition which helps with the smooth functioning of the market.¹³⁵ It further maintains competitiveness in a lawful manner and this

¹³¹ Council Directive 96/9 EC (OJ L 077/20).

¹³² MJ Bastian, ‘Protection of “Noncreative” Databases: Harmonization of United States, Foreign and International Law’ (1999) 22 BCICLR 425 at 444; WIPO, ‘Existing National and Regional Legislation Concerning Intellectual Property in Databases’ IPO Doc. DB/IM/2 (June 30 1997) at 7-8; JH Reichman, P Samuelson, ‘Intellectual Property Rights in Data?’ (1997) 50 VLR 51 at 72, 86 and footnote 95.

¹³³ See this Chapter at 5.2. Origin of unfair competition law.

¹³⁴ C Colston, ‘Sui Generis Database Right: Ripe for Review?’ (2001) 3 JILT (Internet) <http://www2.warwick.ac.uk/fac/soc/law/elj/jilt/2001_3/colston/> accessed 20 March 2013.

¹³⁵ AK Sanders, ‘Unfair Competition Law: The Protection of Intellectual and Industrial Creativity’ (PhD Thesis/Queen Mary-University of London, Clarendon Press 1997) at 22; See this Chapter at 5.2. Origin of unfair competition law.

attracts investment as it promotes profits and business.¹³⁶ Based on the European Commission's 1992 proposal,¹³⁷ Recitals 28, Herr notes that:

“[T]he purpose of the unfair extraction right reflects the incentive theory of intellectual property: to safeguard the position of makers of databases against misappropriation of the results of the financial and professional investment incurred in obtaining and collecting data”.¹³⁸

Passing off and reverse passing off are economic torts and are, therefore, aligned with the interest of the investment. Carty notes that “[e]conomic torts, as their name suggests, have as their primary function the protection of claimants’ economic interests, in the sense of their existing wealth or financial expectations”.¹³⁹ Profits and better returns are the financial expectation of the investment in digital databases. These two economic torts provide a protection over the investment. Database protection mechanisms along with the passing off and reverse passing off, therefore, protect the investments in digital databases.

This Chapter builds upon this argument as the proposed system focused on attracting foreign and domestic investment to the Sri Lankan digital database field. Reverse passing off further provides credit to the original source which is very important to the digital database protection. This confirms the credibility of enhancing of value of the data which depends on existing data that may belong to other digital databases.

¹³⁶ “Competition is essentially a process of the formation of opinion: by spreading information...it creates the views people have about what is best and cheapest”. FA Hayek, ‘Economics and Knowledge’ in Hayek (ed), *Individualism and Economic Order* (Chicago, Ill., University of Chicago Press 1948) at 106 cited in AK Sanders, *supra* n.135, at 100.

¹³⁷ COM (92) 24 final.

¹³⁸ Herr, ‘Is the *Sui Generis* Right a Failed Experiment?’ at 90.

¹³⁹ H Carty, *An Analysis of the Economic Torts* (2nd edn, OUP 2010) 1.

This Chapter demonstrates that unfair competition develops and maintains the free-ride situation among competitors. Legitimate free-ride creates better competition and this maintains the stability of the market which, in turn, reduces the imbalances in the market. This helps to encourage firm investment decisions which subsequently attract more investors to the field. However, US observations denote that misappropriation is a narrower protection compared to the *sui generis* protection,¹⁴⁰ but that it still protects the investment.¹⁴¹ The purpose of introducing the *sui generis* right protection in the EU was and is to protect investment in databases.¹⁴² In order to attract investment to the digital database field in Sri Lanka the *sui generis* right protection, consisting of a bundle of mechanisms, should be used. The thesis therefore suggests taking a much broader approach with reference to the *sui generis* right protection, and this is developed in more detail in the following Chapter.

¹⁴⁰ See this Chapter at 5.6. Lessons on the protection of databases from unfair competition in the United States.

¹⁴¹ DS Karjala, 'Misappropriation as a Third Intellectual Property Paradigm' (1994) 94 CLR 2594 at 2595; CR McManis, 'Database Protection in the Digital Information Age, (2001-2002) 7 RWULR 7 at 14; G Westkamp, 'Protecting databases under US and European law - Methodical approaches to the protection of investments between unfair competition and intellectual property concepts' (2003) 34/7 IRIPCL 772 at 779.

¹⁴² COM (88) 172 final, para 6.4.7; Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 44; Herr, 'Is the *Sui Generis* Right a Failed Experiment?' at 90.

CHAPTER 6

THE *SUI GENERIS* RIGHT PROTECTION OF DIGITAL DATABASES

6.1. Introduction

This Chapter aims to discuss the need for *sui generis* right in the context of protection of investment in digital databases. The protection of the *sui generis* right depends on the identification of substantial investment in digital databases. The investment referred to is both financial and non-financial¹ which support the notion of the enhancement of value and/or usefulness of data identified by the thesis. As a result of the digital formation done by the functions of computer programs, the databases receive an enhancement and usefulness of the data. The investment behind this value enhancing process is needed to be identified in order to protect such investment. The *sui generis* right provides an optimal level of protection mechanism for that purpose.²

This thesis has so far considered four different but interdependent mechanisms in relation to the protection of digital databases in Sri Lanka. Chapter two analysed the possibility of copyright protection for digital databases. Chapter three, with reference to the computer programs installed in digital databases, identified the possibility of patent protection being used to protect digital databases and its contribution to the digital formation of the database. Chapter four and five suggested contract and unfair competition/misappropriation protection for databases. Thus far, this thesis has suggested that all of these

¹ See Chapter 1 at 1.6.2. Link between protection and investment.

² Council Directive 96/9 EC (OJ L 077/20), art. 7.

protection mechanisms/rights-copyright, patent, contract and unfair competition and misappropriation - could independently and collectively provide protection for digital databases despite issues specific to each of them. This leads towards the establishment of a new protection mechanism which consists of all the aforementioned concepts and the *sui generis* right protection.

This Chapter assesses the potential for the *sui generis* right protection of digital databases in Sri Lanka. First, it outlines the meaning of a *sui generis* right protection.³ Then, this Chapter will examine Article 7(1) of the Database Directive⁴ as this provides the framework for the *sui generis* right protection, as well as the purported purpose of the Database Directive in relation to the protection of investments in databases. In so doing, this thesis discusses the investment and *sui generis* right in relation to economic theory. The examination of the infringement of the *sui generis* right will also assess the link between the purpose of the *sui generis* right protection and investment in databases. This thesis aims to analyse its compatibility with Sri Lankan investment needs⁵ in order to establish a new digital database protection mechanism.

³ P Sales, 'A Comparison of the Principle of Legality and Section 3 of the Human Rights Act 1998' (2009) 125 LQR 598; P Sales, 'Judges and legislature: values into law' (2012) 71/2 CLJ 287 at 291, 292; *R (Jackson) v HM Attorney-General* [2005] UKHL 56 (per Steyn LJ).

⁴ Council Directive 96/9 EC (OJ L 077/20).

⁵ See Chapter 1 at 1.6. The role of investment in database protection and especially at 1.6.3. Possible reasons for a lack of investment.

6.2. Meaning of the *sui generis* right

The database *sui generis* right is identified as “one of the least balanced and most potentially anti-competitive intellectual property rights ever created”.⁶ For example, the overall purpose of introducing the Database Directive was to promote the production incentives and information market⁷ which caters for the rapid development of information needs in the European community and the rest of the world.⁸ Therefore, the *sui generis* rights⁹ aim to ensure protection of any investment in obtaining, verifying or presenting the contents of a database. This investment “may consist of the implementation of financial resources and/or the expending of time, effort and energy”.¹⁰ This means that *sui generis* rights protection intends to address every phase of investment in the databases. The expending of time, effort and energy all derive from the owners’ investment. This investment is probably a financial one because he has to pay for the time, effort and energy. Even though legal instruments, such as Database Directive, do not mention this, generally, the database owner has taken the “risk of investment”¹¹ with the intention of receiving better returns on his investment.¹²

⁶ JH Reichman, P Samuelson, ‘Intellectual Property Rights in Data?’ (1997) 50 VLR 51 at 81; Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 43; Herr, ‘Is the *Sui Generis* Right a Failed Experiment?’ at 122.

⁷ Council Directive 96/9 EC (OJ L 077/20), recitals 1 - 4.

⁸ COM (88) 172 final at paras 1.1.3, 1.2.4 and generally 1.3; COM (92) 24 final at paras 1.2, 1.3; Herr, *supra* n.6, at 90.

⁹ P Samuelson, ‘Creating a New Kind of Intellectual Property Law: Applying the Lessons of the Chip Law to Computer Programs’ (1985) 70 MLR 471; JH Reichman, P Samuelson, *supra* n.6, at 54.

¹⁰ FW Grosheide, ‘Database Protection-The European Way’(2002) 8 WUJLP 39 at 54.

¹¹ R Morck *et al.*, ‘The Stock Market and Investment: Is the Market a Sideshow?’ (1990) 1990/2 BPEA 157 at 163; DM Trubek, ‘Toward a Social Theory of Law: An Essay on the Study of Law and Development’ (1972-1973) 82/1 YLJ 1.

¹² Landes, RA Posner, ‘The Economics of Trademark Law’ at 272.

However, accomplishing this depends on the protection of the investment.¹³ This links in with the rationale of the *sui generis* rights protection found in Recital 41,¹⁴ that aims to prevent unauthorized extraction or re-utilization. This was proposed in Article 2(5) of the first draft.¹⁵ This Article required member states to provide a right to cover this requirement.¹⁶ That interpretation of the Article consisted of some limitations and exceptions,¹⁷ the existence of which demonstrates that this right was designed to provide limited protection based on principles of unfair competition. The aforesaid limitations and exceptions demonstrate the link with principles of unfair competition as they mentioned that “the right itself was restricted to ‘unfair extraction’, which in turn was defined as meaning extraction and re-utilisation for commercial purposes”.¹⁸

Article 7(1) of the Database Directive imposes an obligation on member states to provide a right for the maker of a database who shows that there has been, qualitatively and/or quantitatively, a substantial investment in either the obtaining, verification or presentation of the contents to prevent extraction and/or reutilization of the whole or of a substantial part of the contents of that database.¹⁹ This shows that the *sui generis* right does not apply to a database if

¹³ See Chapter 1 at 1.6.2. Link between protection and investment.

¹⁴ FW Grosheide, ‘Database Protection-The European Way’(2002) 8 WUJLP 39 at 54.

¹⁵ COM (92) 24 final.

¹⁶ Davison, *The Legal Protection of Databases* 57.

¹⁷ Article 1(2) of the First Draft. / COM (92) 24 final.

¹⁸ Article 1(2) of the First Draft. / COM (92) 24 final.

¹⁹ Council Directive 96/9 EC (OJ L 077/20), recital 11; McManis, ‘Database Protection in the Digital Information Age’ at 8.

copyright subsisted in the contents of the database. This is a deviation from the first draft.²⁰

Further, Article 7 shows the significance of identifying the investment in order to provide protection over databases.²¹ Jacob LJ in the *British Horseracing Board Ltd v. William Hill Ltd*²² pointed out that:

“The expression ‘investment in ... the obtaining ... of the contents’ of a database in Article 7(1) of Directive 96/9/EC ... must be understood to refer to the resources used to seek out existing independent materials and collect them in the database. It does not cover the resources used for the creation of materials which make up the contents of a database. The expression ‘investment in ... the ... verification ... of the contents’ of a database in Article 7(1) of Directive 96/9 must be understood to refer to the resources used, with a view to ensuring the reliability of the information contained in that database, to monitor the accuracy of the materials collected when the database was created and during its operation”.²³

Hence, the *sui generis* right protection is aimed at the investment in the database. A mechanism that contains the *sui generis* right protection focusing on investment is then relevant for the protection of investment in Sri Lanka, providing that the protection of this investment helps to attract investment as defined in this thesis.²⁴

²⁰ Article 2(5) of the First Draft. / COM (92) 24 final.

²¹ *Football Dataco v Stan James* [2012] EWHC Ch 1185; R Montagnon *et al.*, ‘Rights in databases: success at last’ (2012) 28th June, Practical Law Publishing Limited / PLC magazine (Internet) <<http://plc.practicallaw.com/7-520-0284#>> accessed 04 May 2013.

²² [2005] EWCA Civ 863 <<http://www.bailii.org/ew/cases/EWCA/Civ/2005/863.html>> accessed 22 October 2013.

²³ *British Horseracing Board, ibid.*, at para 15.

²⁴ See Chapter 1 at 1.6.2. Link between protection and investment.

The Database Directive was implemented in the UK through the Copyright and Rights in Databases Regulations 1997.²⁵ Regulation 14 describes that the makers of a database are the persons who go about obtaining, verifying or presenting the contents of a database and assume the risk of investing in these activities.²⁶

The Directive provides a dual system of protection. One of them is copyright and another is *sui generis* right protection and both address the investment in databases. As Leistner notes, “the traditional copyright in a collective work (now a ‘database work’) was merely modified in certain details; it is now joined by a related right for the protection of substantial investments in databases”.²⁷ The protection of copyright also intends to provide protection over investments in databases.²⁸ Therefore, the core of the protection of databases is directed at substantial investment. This right is provided to the person who can demonstrate the substantial investment. The law seeks to uncover the substantial investment in order to identify the maker of the database who has the right to enjoy the *sui generis* right protection. Therefore, the central feature of the identification of a database maker is also found in the investment of the database.²⁹

²⁵ Copyright and Rights in Databases Regulations 1997, SI1997/3032.

²⁶ Copyright and Rights in Databases Regulations 1997, SI1997/3032, regs. 14(1), 14(5) and 13(1); Davison, *The Legal Protection of Databases* 147.

²⁷ M Leistner, ‘Legal protection for the database maker: initial experience from a German point of view’ (2002) 33/4 IRIPCL 439 at 440 [hereafter Leistner, ‘Legal protection for the database maker: initial experience from a German point of view’].

²⁸ See Chapter 2.

²⁹ In the US, Database Investment and Intellectual Property Antipiracy Act of 1996, H.R. 3531 §§ 6, 9, 104th Cong. (1996); McManis, ‘Database Protection in the Digital Information Age’ at 36-37.

The Database Directive provides copyright protection for the structure of the database and the *sui generis* right protects its contents:

“[I]f the structure is original, it is already protected by copyright and should not be protected by the *sui generis* right even if a substantial investment can be proven in the structure, the presentation, itself. In this case, again as a matter of policy, the same object (effort) should not be protected (rewarded) twice”.³⁰

Davison argues that the findings discussed above are “superficially accurate but also misleadingly simplistic”.³¹ This shows the need for further studies on this protection mechanism for databases. The applicability of legal rights and legal mechanisms such as copyright and unfair competition laws in the same protection system can provide possible solutions in a situation like this. This assessment is being followed in this thesis. Its proposal consists in creating a bundle of rights and/or mechanisms. When one of the rights or mechanisms fails, another will be on hand to be implemented. A number of examples will follow to illustrate this.

“Unfair competition protects all databases against all types of extractions and reutilizations whilst the *sui generis* right does not”,³² i.e., the extraction or re-utilisation of any database in which there has been a substantial investment in obtaining, verifying or presenting the data contents are not protected under the *sui generis* rights regime.³³

³⁰ E Derclaye, ‘Databases sui generis right: should we adopt the spin off theory?’(2004) 26/9 EIPR 402 at 410; *Electronic Techniques (Anglia) Ltd v Critchley Components Ltd* [1997] FSR 401 at 404-407.

³¹ Davison, *The Legal Protection of Databases* 81.

³² C Sawdy, ‘High Court decision revisits protection of databases in the United Kingdom-*Football Dataco Ltd v Britten Pools Ltd*’ (Case Comment) (2010) 21/6 ELR 221.

³³ Council Directive 96/9 EC (OJ L 077/20), arts. 7 (1), 7 (2) (a), 7 (2) (b) and 7 (5).

In *SAS Institute Inc. v World Programming Limited*, Arnold J held that:

“[N]either the functionality of a computer program nor the programming language and the format of data files used in a computer program in order to exploit certain of its functions constitute a form of expression of that program and, as such, are not protected by copyright in computer programs for the purposes of that directive”.³⁴

Copyright does not, therefore, protect a programming language as such, or its interfaces, data file formats or functionality. Digital databases enhance the value or usefulness of their data content, thanks to the functions of computer programs installed.³⁵ These computer functions need to be protected in line with digital database protection. However, copyright protection, as mentioned in the *SAS* case, does not provide protection of functionality of computer programs. Hence, a patent which protects functionality needs to be applied³⁶ to the function of computer programs whilst copyright protects the data content.

The usage of an insubstantial part of a database as a substantial part of another database is considered an infringement. In terms of infringement of the *sui generis* right protection, an insubstantial part of a database may be part of the content of another database. This illegitimate practice damages the inherent nature of online digital databases. Online databases enhance the value and/or usefulness of data and these depend on other databases, for example, where one database utilises information from another, or utilises a data mining process, which can reveal financially valuable data patterns. Therefore,

³⁴ *SAS Institute Inc. v World Programming Limited* [2013] EWHC Ch 69, 2013 WL 128161 at para 10.

³⁵ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

³⁶ See Chapter 3.

interpretation of infringement of the *sui generis* right protection reduces the practices of digital databases i.e., enhancement of value and/or usefulness of data. In this situation, this thesis proposes using misappropriation protection along with reverse passing off.³⁷ These doctrines can help to identify the source of information. The third party information user or database is then legally bound to reveal the original information source. The use of this doctrine further helps to track down benefits that a third party has taken via extraction or reutilization.

The proposed system in this thesis includes *sui generis* rights protection. The above mentioned points will be incorporated into the proposed *sui generis* system.³⁸ This thesis will examine the existing database protection rights and mechanisms in order to find out which are suitable in the proposed Sri Lankan system.

Furthermore, under the *sui generis* right, “if there has been ‘substantial investment,’ either quantitatively or qualitatively, in ‘obtaining, verifying or presenting the contents of a database,’ the database owner will have a database right, a new *sui generis* form of intellectual property right³⁹ in those

³⁷ See Chapter 5 at 5.3.1. Reverse passing off doctrine.

³⁸ See this Chapter at 6.9. Concluding remarks.

³⁹ “In the United Kingdom’s transposition of the EU Database Directive into domestic law, the new ‘database right’ is expressly referred to in the enacting legislation as a ‘property right’. See Copyright and Rights in Databases Regulations, r.13 (1997) (Eng.). The EU Database Directive itself does not expressly use the term ‘property right’ or ‘intellectual property right’ in relation to the new rights in databases. However, it does contemplate ‘ownership’ of relevant rights, which would seem to connote property rights, despite the fact that the Directive generally seems to prefer the terminology of ‘economic rights’ to ‘property rights’. See, for example, Arts 4(2) and 4(3). The Directive also contemplates that database rights may be transferred, assigned or granted under contractual licence. This would again seem to connote a personal property right: Art. 7(3)”. J Lipton, ‘Databases as intellectual property: new legal approaches’ (2003) 25/3 EIPR 139 at 141; “A property right is a legally enforceable power to exclude others from using a resource, without need to contract with them.” Landes, RA Posner, ‘The Economics of Trademark Law’ at 267.

contents”.⁴⁰ Intellectual property rights protect the investment⁴¹ and protected investments maximise the returns on investment.⁴² Therefore, IP rights help to attract investment.⁴³ As Maskus states:

“There are two central economic objectives of any system of intellectual property protection. The first is to promote investments in knowledge creation and business innovation by establishing exclusive rights to use and sell newly developed technologies, goods, and services ... The second goal is to promote widespread dissemination of new knowledge by encouraging (or requiring) rights holders to place their inventions and ideas on the market”.⁴⁴

Both of these objectives help to attract investments to the digital database field. Therefore, the *sui generis* right protection, as an intellectual property right, protects investment and provides investment opportunities for digital databases.

Digital technology is radically changing the face of the database industry.⁴⁵ For example, in the US, this technological change raised the question of the necessity of *sui generis* right protection.⁴⁶ After the “promulgation of the EU Database Directive, the first US Bill aimed at creating a similar *sui generis* right for data was proposed in the United States House of Representatives”.⁴⁷ The

⁴⁰ J Lipton, *ibid.*, at 141.

⁴¹ Landes, RA Posner, ‘The Economics of Trademark Law’ at 268 and footnote 5.

⁴² See Chapter 1 at 1.6.2. Link between protection and investment.

⁴³ AM Imam, ‘How does patent protection help developing countries?’ (2006) 3 IRIPCL 245 at 254.

⁴⁴ Maskus, ‘Intellectual Property Rights and Economic Development’ at 473-474.

⁴⁵ Conley *et al.*, ‘Database Protection in a Digital World’ at paras 1, 2, 3.

⁴⁶ “The number of files in electronic databases has increased from four billion in 1991 to eleven billion in 1997, a staggering 200+% increase”. McManis, ‘Database Protection in the Digital Information Age’ at 21; Conley *et al.*, *ibid.*, at paras 1, 2, 3.

⁴⁷ Database Investment and Intellectual Property Antipiracy Act of 1996, H.R. 3531 §§ 6, 9, 104th Cong. (1996); McManis, ‘Database Protection in the Digital Information Age’ at 9 and 35.

digital information era needs this kind of *sui generis* right protection. This thesis identifies the role of the computer program⁴⁸ and how the computer program enhances the value or usefulness of data in digital database content.⁴⁹ A *sui generis* right would provide protection for investment in digital databases for the reasons outlined.⁵⁰

6.3. Substantial investment

One of the objects of this thesis is to protect the investment of digital databases in Sri Lanka. Protection mechanisms protect investment⁵¹ and this, in turn, attracts future investment⁵² because protected investment maximises returns on investment. The *sui generis* right protection addresses the investment that generates the database. The *sui generis* right protection aims at protecting the substantial investment.⁵³ As far as UK and EU experiences are concerned, in the line of courts decisions,⁵⁴ “[t]he Court of Appeal was also very mindful of the utility of information-processing systems generally, and the need to protect the significant investments that may be made by the persons who are creating databases. This goes to the heart of the policies that underpin the [Database]

⁴⁸ See Chapter 3.

⁴⁹ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

⁵⁰ See this Chapter at 6.5. The identification of the quantitative or qualitative nature of the substantial investment as a means of protecting and attracting investment, 6.7. Investment and *sui generis* right in relation to the economic theory and Chapter 1 at 1.7. Importance of *sui generis* right protection and link with investment.

⁵¹ See Chapter 1 at 1.6.2. Link between protection and investment.

⁵² See Chapter 1 at 1.6.2. *ibid.*

⁵³ Council Directive 96/9 EC (OJ L 077/20), art. 7.

⁵⁴ *Football Dataco Ltd v Sportradar GmbH* [2013] EWCA Civ 27, [2013] Bus LR 837 CA (Civ Div); *Football Dataco Ltd v Sportradar GmbH* (C-173/11) [2013] 1 CMLR 29 ECJ (3rd Chamber).

Directive”.⁵⁵ The thesis proposed protection mechanism consists of *sui generis* right protection which will help to protect investment of digital databases in Sri Lanka. This will attract the investors to the Sri Lankan digital databases arena.

Article 7(1) in the chapter titled “object of protection”⁵⁶ of the Database Directive states that, a substantial investment is required in order to provide *sui generis* right protection for databases.⁵⁷ This can take the form of a financial investment or “result from time, energy or efforts, material or human in the process of the making of the database”,⁵⁸ and it shows the nature of the investment.⁵⁹ Even though the Database Directive does not define the meaning of ‘substantial’, the investment must be a substantial one and “the substantiality of relevant investment lies at the heart of the *sui generis* right protection”.⁶⁰ This substantial investment can be examined qualitatively or quantitatively or both.⁶¹ This thesis

⁵⁵ R Sylvester, ‘In-match sports data: back on the radar’ (Case Comment) (2013) 24/4 ELR 134 at 136.

⁵⁶ Council Directive 96/9 EC (OJ L 077/20), ch III.

⁵⁷ Council Directive 96/9 EC (OJ L 077/20), art. 7 (1) states that, “Member States shall provide for a right for the maker of a database which shows that there has been qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents to prevent extraction and/or re-utilization of the whole or of a substantial part, evaluated qualitatively and/or quantitatively, of the contents of that database”.

⁵⁸ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 73; *Fixtures Marketing Ltd v Oy Veikkaus Ab* [2005] ECDR 2 at para 38; *Fixtures Marketing (Greece)* [2004] ECDR I-10549; Council Directive 96/9 EC (OJ L 077/20), recital 40.

⁵⁹ *Football Dataco Ltd and Others v Stan James plc and Others, Sportradar GmbH and Another* [2013] EWCA Civ 27; *Flogas Britain Limited v Calor Gas Limited* [2013] EWHC Ch 3060 at para 118.

⁶⁰ A Koo, ‘Database right decoded’ (2010) 32/7 EIPR 313 at 316.

⁶¹ Council Directive 96/9 EC (OJ L 077/20), art. 7 (1); S Vousden, ‘Apis, databases and EU law’ (Case Comment) (2011) 2 IPQ 215 at 217; *Apis-Hristovich EOOD v Lakorda AD* [2009] 3 CMLR 3.

identifies the notion of enhancement of value of the data in digital databases⁶² as an enhancement of the quality of the data in the database content. Computer programs in digital databases first set up the useful patterns through data mining⁶³ and, subsequently, KDD⁶⁴ processes enhance the value of the data in the data content. This process represents a substantial investment in databases. Investors tend to invest if proper protection is provided.⁶⁵

Furthermore, substantial investment should be made in the “obtaining, verification or presentation of the contents of the databases”.⁶⁶ Data mining obtains and verifies the data in order to make useful data patterns.⁶⁷ KDD presents these patterns in order to enhance the value and/or usefulness of such data. Knowledge discovery of the database process consists of:

“Developing an understanding of the application domain and the goals of the data mining process, acquiring or selecting a target data set, integrating and checking the data set, data cleaning, pre-processing, and transformation, model development and hypothesis building, choosing suitable data mining algorithms, result interpretation and visualization, result testing and verification and using and maintaining the discovered knowledge”.⁶⁸

⁶² See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

⁶³ Fayyad *et al.*, ‘From data mining to knowledge discovery in databases’ at 39.

⁶⁴ Goebel *et al.*, ‘A Survey of Data Mining and Knowledge Discovery Software Tools’ at 20.

⁶⁵ See Chapter 1 at 1.6.2. Link between protection and investment.

⁶⁶ Council Directive 96/9 EC (OJ L 077/20), art. 7 (1).

⁶⁷ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

⁶⁸ Goebel *et al.*, ‘A Survey of Data Mining and Knowledge Discovery Software Tools’ at 21; Fayyad *et al.*, ‘The KDD Process for Extracting Useful Knowledge from Volumes of Data’; Fayyad *et al.*, ‘From data mining to knowledge discovery in databases’ at 39.

This process represents the substantial investment which is required by the *sui generis* right protection. The *sui generis* right protection, therefore, protects the process of enhancing the value of data in databases.

A quantitative assessment “takes into account quantifiable resources”⁶⁹ such as labour, equipment and money.⁷⁰ It is also a process that is made up of human labour and money and this is, therefore, an investment which can be quantified. A qualitative assessment is useful when an investment cannot be quantified. In *Fixtures Marketing Ltd v Oy Veikkaus Ab*⁷¹ the European Court of Justice held that:

“Investment in the creation of a database may consist in the deployment of human, financial or technical resources but it must be substantial in quantitative or qualitative terms. The quantitative assessment refers to quantifiable resources and the qualitative assessment to efforts which cannot be quantified, such as intellectual effort or energy, according to the 7th, 39th and 40th recitals of the preamble to the directive”.⁷²

However, the European Court of Justice excluded investment in generating data for the purpose of the *sui generis* right protection. Further, qualitative and quantitative investment i.e. time, labour effort which was used to set up the particular computer program that brings the process of generating new valued data seems to be not considered by the judges.⁷³ The reason behind this may be fact that the computer programs can be protected by copyright law and

⁶⁹ *Fixtures Marketing* (Finland) [2004] ECR I-10365 at para 38; *Fixtures Marketing* (Sweden) [2004] ECR I-10487 at para 28; *Fixtures Marketing* (Greece) [2004] ECR I-10549; [2005] 1 CMLR 16 at para 44.

⁷⁰ Council Directive 96/9 EC (OJ L 077/20), recitals 7, 39, 40.

⁷¹ [2005] ECDR 2.

⁷² *Fixtures Marketing Ltd, ibid.*, at para 38; *Fixtures Marketing* (Greece) [2004] ECR I-10549; *Fixtures Marketing* (Sweden) [2004] ECR I-10487 at para 28.

⁷³ *Football Dataco Ltd and others v Yahoo! UK Ltd and others* (Case C-604/10) Before the Court of Justice (Third Chamber) 1 March 2012 [2012] 2 CMLR 24 at para 53.

therefore excluded from the scope of *sui generis* right protection.⁷⁴ However, computer programs which do not have copyright protection could not be excluded by the scope of *sui generis* right protection.⁷⁵ In the *British Horseracing Board Ltd and Others v. William Hill Organization Ltd*, the European Court of Justice held that:

“[T]he fact that the creation of a database is linked to the exercise of a principal activity in which the person creating the database is also the creator of the materials contained in the database does not, as such, preclude that person from claiming the protection of the *sui generis* right, provided that he establishes that the obtaining of those materials, their verification or their presentation, required substantial investment in quantitative or qualitative terms, which was independent of the resources used to create those materials”.⁷⁶

Qualitative substantial investment, like the investment in quantitative terms, further “refers to the investment in the creation of the database and the prejudice caused to that investment by the act of extracting or re-utilising that part”.⁷⁷ The connection between substantial investment and infringement/prejudice harms that investment. This connection reduces the protection which can be broadly interpreted with the term substantial investment.

⁷⁴ Council Directive 96/9 EC (OJ L 077/20), art. 1(3) and recital 23 says “[w]hereas the term ‘database’ should not be taken to extend to computer programs used in the making or operation of a database, which are protected by Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs [OJ L 122, 17. 5. 1991, p.42. Directive as last amended by Directive 93/98/EEC (OJ No L 290, 24. 11. 1993, p. 9.)”.

⁷⁵ S Beutler, ‘The protection of multimedia products through the European Community’s Directive on the legal protection of databases’ (1996) 7/8 ELR 317 at 324-325.

⁷⁶ [2005] 1 CMLR 15 at para 35; *Fixtures Marketing (Greece)* [2004] ECR I-10549.

⁷⁷ *British Horseracing Board Ltd and Others v William Hill Organization Ltd* [2005] 1 CMLR 15 at para 69.

The nature of the investment may consist of the deployment of financial resources and/or the expending of time, effort and energy.⁷⁸ In *Fixtures Marketing Ltd v Oy Veikkaus Ab* the ECJ held “[t]hat interpretation is backed up by the 39th recital of the preamble to the directive, according to which the aim of the *sui generis* right is to safeguard the results of the financial and professional investment made in ‘obtaining and collection of the contents’ of a database”.⁷⁹ The ‘result’ of the financial and professional investment which was made in obtaining and collecting the contents of a digital database, is enhanced value or usefulness of the data. Providing protection over this investment attracts further investment as this thesis has argued elsewhere.⁸⁰

The process of enhancement of the value of data identified by this thesis shows the contribution of computer programs to digital databases.⁸¹ Digital databases consist of computer programs and data content. Computer programs represent the technical, professional (program writer’s) investment, i.e. non-financial investment. Set up and maintenance of digital databases represent the contribution of computer program and human (decision-makers, management and entrepreneurs) investment. As mentioned earlier in *Fixtures Marketing Ltd*,⁸² the investment can be financial and/or professional and this can consist of technical or human investment. For example, in that case, the fixtures lists were

⁷⁸ Council Directive 96/9 EC (OJ L 077/20), recital 40.

⁷⁹ *Fixtures Marketing Ltd v Oy Veikkaus Ab* [2005] ECDR 2 at para 35.

⁸⁰ See Chapter 1 at 1.6.2. Link between protection and investment.

⁸¹ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data and Chapter 3.

⁸² *Fixtures Marketing Ltd v Oy Veikkaus Ab* [2005] ECDR 2 at para 35.

not considered to have had sufficient investment⁸³ as they do not show the sufficient investment in the ‘process of collecting and verifying data’ in terms of Article 7 of the Database Directive. In this regard, Derclaye further explains that:

“[T]he human investment is in time, effort or energy whereas the material investment is in the acquisition of equipment to build the database. The financial investment speaks for itself. In fact, a human investment always seems to result in a financial investment since time is money, and effort or energy generally takes time”.⁸⁴

The human investment which is backed by the financial investment is motivated by the availability of protection for the digital databases. Effective protection of intellectual property reduces infringements⁸⁵ and promotes research because it offers “appropriate returns [which are] sufficient to make the investment worthwhile”.⁸⁶ Infringements limit the returns on investment. Reduction of infringements attracts human involvement and contributions to the particular field.⁸⁷ These inputs, therefore, benefit from a proper protection mechanism. For example, adequate patent protection encourages scientists for their new inventions. The scientists are able to benefit financially by licensing their patented inventions or by developing and marketing their own products. However, such benefits would be reduced by infringement.

⁸³ *British Horseracing Board Ltd v William Hill Organisation Ltd* (C-203/02) [2004] ECR I-10415; *Fixtures Marketing Ltd v Oy Veikkaus AB* (C-46/02) [2004] ECR I-10365; *Fixtures Marketing Ltd v Svenska Spel AB* (C-338/02) [2004] ECR I-10497.

⁸⁴ E Derclaye, ‘Database sui generis right: what is a substantial investment? A tentative definition’ (2005) 36/1 IRIPCL 2 at 5 [hereafter Derclaye, ‘Database sui generis right: what is a substantial investment? A tentative definition’].

⁸⁵ See Chapter 1 at 1.6.2. Link between protection and investment.

⁸⁶ RC Levin *et al.*, ‘Appropriating the Returns from Industrial Research and Development’ (1987) 1987/3 BPEA -Special Issue On Microeconomics 783 at 783 (Internet) <<http://www.jstor.org/stable/2534454>> accessed 15 April 2013.

⁸⁷ See Chapter 1 at 1.6.2. *supra* n.85.

Strong protection and stability of the market are also provided by the security of the country.⁸⁸ The Sri Lankan economy has grown dramatically since the war ended in 2009. Average annual real GDP per capita rose from 4.6 in 1995/2004, to 8.0 in 2010 and 8.2 in 2011.⁸⁹ The stability of national security and economic security are interdependent⁹⁰ and, therefore, economic security promotes market functions. Smooth economic functions expand the number of users and customers in the market. More users bring more profits.

This thesis suggests considering the various forms of investment, such as skill, labour and judgement⁹¹ in relation to *sui generis* right protection in order to attract investors to the field. In other words, we should consider the 'obtaining, verification and presentation' in relation to the process of creating data.⁹² The digital formation of data in digital databases is a result of involvement of computer programs. Computer programs in digital databases, if it is needed, first convert data into digital formats such as PDF or HTML.⁹³ Functionality of computer programs over data depends on the digital nature of the data. By

⁸⁸ JK Jackson, 'Foreign Investment and National Security: Economic Considerations' [2008] Library of Congress, Washington DC, Congressional Research Service (Internet) <www.crs.gov> or <<http://www.fas.org/sgp/crs/natsec/RL34561.pdf>> accessed 4 February 2013.

⁸⁹ International Monetary Fund, 'World Economic Outlook (WEO)' (April 2013) World Economic and Financial Surveys (Internet) at 153 <<http://www.imf.org/external/pubs/ft/weo/2013/01/index.htm>> accessed 1 June 2013.

⁹⁰ Cabinet Office. *A strong Britain in an age of uncertainty: the national security strategy*. Vol. 7953 (The Stationery Office 2010) (Internet) at 4 <<http://www.official-documents.gov.uk/>> accessed 1 June 2013.

⁹¹ *Ibcos v Barclays Mercantile Highland Finances* [1994] FSR 275 at 289. cited in S Lai, 'Database Protection in the United Kingdom: The New Deal and its Effects on Software Protection' (1998) 20 EIPR 32; S Lai, *The Copyright Protection of Computer Software in United Kingdom* (Hart Publishing 2000) 161.

⁹² *Data Access Corporation v Powerflex Services Pty Ltd* [1999] HCA 49 at para 11 cited in Davison, *The Legal Protection of Databases* 75.

⁹³ See Chapter 2 at 2.3. Tables, Compilations and databases under Copyright Law.

using this digital nature, computer programs, with thanks to data mining and KDD, enhance the value and/or usefulness of the data.⁹⁴ Conley *et al.*, note that:

“A fully developed database is an interrelated set of components capable of generating value from the collection, processing, merger, storage, or dissemination of data. In practice, databases are arrayed along a continuum according to where their primary value lies. At one end are those whose value depends on the data themselves. At the other end are those databases whose critical element is the system for manipulating the data. Most, of course, are found somewhere in the middle”.⁹⁵

Enhancing the value and/or usefulness of data in digital databases is a process which is being carried out by financial, material and human investment. This investment needs to be protected in order to attract investment.⁹⁶

Digital formation of databases and involvement of computer programs demonstrates the financial, material and human investment.⁹⁷ Digital data has rapidly changed the entire database industry⁹⁸ and it is becoming a multibillion dollar business.⁹⁹ Derclaye argues that, “a human investment seems always to result in a financial investment since time is money, and effort or energy generally takes time.”¹⁰⁰ This opens a debate on the proposed arguments in

⁹⁴ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

⁹⁵ Conley *et al.*, ‘Database Protection in a Digital World’ at para 15.

⁹⁶ See Chapter 1 at 1.6.2. Link between protection and investment.

⁹⁷ See Chapter 3.

⁹⁸ McManis, ‘Database Protection in the Digital Information Age’ at 21.

⁹⁹ Tessensohn, ‘The Devil’s in the Details’ at 453; V Bange, J Sumpster, ‘Databases: treasure or curse?’ (2009) 4/9 WCRR 34; Pattison, ‘The European Commission’s Proposal on the Protection of Computer Databases’ at 113; CR McManis, ‘Database Protection in the Digital Information Age’ (2001-2002) 7 RWULR 7 at 21.

¹⁰⁰ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 73.

this thesis on the enhancement of value and/or usefulness of data in digital databases. In digital databases, there are two types of authors or operators, namely, human authors and computer programs.¹⁰¹ They both involve the process of enhancing value and/or usefulness of data. Derclaye's argument did not offer a role or admit the contribution of computer programs in digital databases.¹⁰² This thesis proposes to identify the role that computer programs play in the process of enhancing the value or usefulness of data in digital databases.¹⁰³ This helps to identify the investment in computer programs in digital databases in order to protect the same. Finally, this identification and protection helps to attract investment to the digital database field.

Derclaye's argument can be observed as "a value-based assessment of the extent to which the investment merits protection".¹⁰⁴ The suggestions made in this research are based on both financial and non-financial investment. The reason behind this is that it provides more possibility for a broad interpretation which helps to attract more investors to the field regardless of the form, such as financial, material and human, of their investment.¹⁰⁵ Too specific categorisation minimises the protection when compared to a broader interpretation. Investment in digital databases within Sri Lanka may consist of human and/or financial

¹⁰¹ See Chapter 3.

¹⁰² Derclaye, *supra* n.100, 67.

¹⁰³ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data and Chapter 3.

¹⁰⁴ M Lehmann, 'The European Database Directive and its implementation into German law' (1998) 29/7 IRIPCL 776 at 783.

¹⁰⁵ See Chapter 1 at 1.6.2. Link between protection and investment; DM Trubekt, 'Toward a Social Theory of Law: An Essay on the Study of Law and Development' (November 1972) 82/1 YLJ 1 at 2 and especially at '*The Relationship Between Modern Law and Economic Development*' at 6.

investment and needs to be protected in order to accelerate and encourage new investment in the field.¹⁰⁶

6.4. Substantiality of the investment

This thesis emphasises the importance of providing protection for the investment in digital databases with a view to attracting further investments to the said field. Hence it is vital to examine the meaning of the term “substantial investment” specified in the Database Directive.¹⁰⁷ This central feature will be the focus of the proposed digital database legal system in Sri Lanka since it mainly targets the investment possibilities within digital databases. Simultaneously, substantial investment is the central feature of the existing protection of databases.¹⁰⁸ It is important to know what lies beneath this concept of substantial investment, and what it actually means, since it is not defined in the Database Directive.¹⁰⁹ However, as this thesis also suggests, it is a requirement for the digital database owner to demonstrate that a substantial investment was made in the “obtaining, verification or presentation of the contents of the database”.¹¹⁰ This substantial investment may be either a

¹⁰⁶ “Law is a phenomenon of the social system”. T Parsons, ‘Law as an Intellectual Stepchild’ (July 1977) 47/3-4 SI 11 at 13.

¹⁰⁷ Council Directive 96/9 EC (OJ L 077/20).

¹⁰⁸ Council Directive 96/9 EC (OJ L 077/20), art. 7(1); Copyright and Rights in Databases Regulations 1997, SI1997/3032, reg. 13 (1); Herr, ‘Is the *Sui Generis* Right a Failed Experiment?’ at 11; *The Himalaya Drug Company v Sumit* 126 (2006) DLT 23, 2006 (32) PTC 112 Del (India); *British Horseracing Board Ltd and Others v William Hill Organization Ltd*, ECJ case C-203/02, 9 Nov. 2004 (England); *Fixtures Marketing Ltd v Organismos prognostikon agonon podosfairou AE*, ECJ case C-444/02, 09 Nov. 2004 (Greece); *Fixtures Marketing Ltd v Oy Veikkaus Ab*, ECJ case C-45/02, 09 Nov. 2004 (Finland); and *Fixtures Marketing Ltd. v Svenska Spel AB*, ECJ case C-338/02, 09 Nov. 2004 (Sweden).

¹⁰⁹ Derclaye, ‘Database sui generis right: what is a substantial investment? A tentative definition’ at 2 and footnote 6; See this Chapter at 6.3. Substantial investment.

¹¹⁰ Council Directive 96/9 EC (OJ L 077/20), art. 7 (1).

qualitative and/or quantitative¹¹¹ but not much more guidance is given on what exactly this investment can be composed of.

While the Database Directive is silent on this, Recital 19 of the Directive indicates the required level of investment:¹¹²

“The investment in the compilation of several recordings of musical performances on a CD would not generally come within the scope of the Directive as it would not represent a substantial enough investment while this gives some guidance about what does not constitute a sufficiently substantial investment, it also raises more questions than it answers”.¹¹³

However, Floyd J in *Pharma Intranet Information AG v. IMS Health GmbH & Co OHG*¹¹⁴ stated that:

“The database originality standard was to be read subject to recital 19 of the Directive. That recital holds that, as a rule, the compilation of several musical performances on a CD will not come within the scope of the Directive as regards either copyright protection or the *sui generis* database right ... this appeared to run counter to the quite low threshold of originality demonstrated by the *Pharma Intranet case*”.¹¹⁵

Before a comparison and analysis of the aforementioned arguments are made in terms of the Sri Lankan situation, it is helpful to examine the facts of cases in

¹¹¹ Council Directive 96/9 EC (OJ L 077/20), art. 7 (1); *Apis-Hristovich EOOD v Lakorda AD* [2009] 3 CMLR 3.

¹¹² Derclaye, ‘Database sui generis right: what is a substantial investment? A tentative definition’ at 6; *In France France Telecom v MA Editions* (Tribunal de commerce de Paris, 18 June 1999), *in Germany Tele-Info-CD* (Bundesgerichtshof, 6 May 1999), *in the Netherlands KPN v Denda* (Gerechtshof Arnhem, 15 April 1997, follow-up in *Rechtbank Almelo*, 6 December 2000). cited in A Engelfriet, ‘Crash course on database rights: Requirements for protection’ (2002 - 2005) 1 October, *Ius mentis* (Internet) <<http://www.iusmentis.com/databases/crashcourse/requirements/>> accessed 23 March 2012.

¹¹³ Davison, *The Legal Protection of Databases* 85.

¹¹⁴ [2005] ECC 12.

¹¹⁵ [2010] RPC 17 at para 90, *Football Dataco Ltd v Britten Pools Ltd* [2010] EWHC Ch 841 cited in M Rodgers, ‘Football fixture lists and the Database Directive: *Football Dataco Ltd v Britten Pools Ltd* (Case Comment) (2010) 32/11 EIPR 593 at 596.

relation to substantial investment, especially the required level of investment and whether substantial investment should be determined on a case by case basis. The specific facts of a case vary and, this influences the assessment of what is the required level of investment.¹¹⁶ The clarity of the substantial investment has differed from case to case; sometimes there is a high level of substantial investment and other times it is comparatively lower. Some of them are in the middle of those higher and lower substantial investments. These borderline cases open the debate over the level of substantiality.¹¹⁷

In the spectrum of cases, there are very few which provide examples of higher amounts of substantial investment.¹¹⁸ Therefore, this thesis will turn to the French and German jurisdictions in order to find examples of higher levels of substantial investment. French and German courts¹¹⁹ have been involved with these issues. In *S.A. France Telecom v. MA Editions Sàrl and Another*,¹²⁰ the Tribunal de Commerce de Paris found that:

“However, although it was clear from the evidence that mistakes made by the defendants were being attributed to the plaintiff, and thus that its reputation was being harmed by the actions of the defendants, the evidence on that point was very incomplete, and that the similarities between the plaintiff’s and defendants’ brochures for their reverse directories did not exceed an acceptable level. Thus,

¹¹⁶ S Gijrath, B Gorissen , ‘Applying the database act to on-line information services, a trial and error exercise’ (2001) 106 CW 25.

¹¹⁷ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 76.

¹¹⁸ Derclaye, *ibid.*, 76.

¹¹⁹ This thesis studies the regulatory systems of the UK and other selected European countries when and where appropriate. It is intended to examine sound regulatory approaches that can be adopted in respect of the proposed system for Sri Lanka through such a comparative analysis.

¹²⁰ 18 June 1999 Before the Tribunal de Commerce (Commercial Court), Paris [2001] ECC 4 cited in Derclaye, *supra* n.117, 76.

the damage caused to the plaintiff by the defendants' conduct could fairly be considered to be no less than 10 million FF".¹²¹

As the court pointed out, France Telecom had made substantial investment in several areas such as cost of collection of data, cost of management of the same, cost of control, and cost of maintenance of the data in the particular database.¹²² This process can be done by humans or computer programs in digital databases.¹²³ In the process of enhancing the value of data, computer programs first collect the data and then arrange useful patterns (management, maintenance, control) through data mining and KDD.

This thesis posits that involvement of computer programs should be identified in order to find out the substantial investment underneath the process of enhancement of value and/or usefulness of data. The contribution of computer programs in digital databases can be identified as substantial investment and, therefore, this needs to be protected in order to attract investors to the field.¹²⁴

The German Federal Court in *Re the Unauthorised Reproduction of Telephone Directories on CD-Rom* (Tele-Info CD case)¹²⁵ noted that:

“[T]he Tele-Info-CDs marketed by the first and second defendants and the classified Tele-Info CDs were compiled solely by means of scanning the telephone directories published by the first plaintiff. The

¹²¹ *S.A. France Telecom* [2001] ECC 4 at 20-21.

¹²² “...the plaintiff's annual costs in this respect amount to 155 million FF (exclusive of tax) for the collection of data relating to subscribers (updating of 50,000 addresses every day), and 50 million FF (exclusive of tax) for the management, checking and maintenance of the database, *i.e.* an annual total of 205 million FF”. *S.A. France Telecom v MA Editions Sàrl and Another* [2001] ECC 4 at para 6.

¹²³ See Chapter 3.

¹²⁴ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data and at 1.6.2. Link between protection and investment.

¹²⁵ Before the Bundesgerichtshof (German Federal Supreme Court), 6 May 1999 [2000] ECC 433.

latter states that it had to pay almost 93 million DM for over 30 million data records to the second plaintiff, from which they were obtained. The plaintiffs took the view that the defendants' conduct amounted to infringement of their copyrights. The telephone directories were not merely compilations of data, but highly sophisticated works with an original creative content. Furthermore, the defendants' conduct was anti-competitive on several grounds".¹²⁶

As Derclaye points out, this argument is put forward in another German case,

Übernahme einer Gesetzessammlung im Internet,¹²⁷ where:

"[A] collection of consolidated laws was copied and put on the Internet by the defendant. The claimant was able to show a substantial investment of 400 000 in Deutschmarks to build the database as well as an investment in personnel and time".¹²⁸

Therefore, the investment can be measured according to the effort which has been invested over a number of years. Black *et al.*, note that the investment is "[t]he process of adding to stocks of real productive assets. This may mean acquiring fixed assets, such as buildings, plant, or equipment, or adding to stocks and work in progress".¹²⁹ The 'work in progress' may only take seconds¹³⁰ or may take several years.¹³¹ Updating the data in digital database is part of the maintenance of the database. This maintenance process denotes the investment being done by the author or owner of the digital database and

¹²⁶ *Tele-Info CD, ibid.*, at 437.

¹²⁷ DC Munich, 8 August 2002 <<http://www.jurpc.de/rechtspr/20020369.htm>> accessed 15 April 2013.

¹²⁸ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 77.

¹²⁹ Black *et al.*, *A Dictionary of Economics* 242.

¹³⁰ Highly time sensitive databases. Example- *ESPNcrinfo*. For more detail about the time sensitive data see Chapter 5 at 5.6. Lessons on the protection of databases from unfair competition in the United States.

¹³¹ *Tele-Info CD* [2000] ECC 433.

this investment can be substantial. This investment needs to be protected in order to attract the future investment.¹³²

The United Kingdom position with regard to substantial investment can be found in *British Horseracing Board v. William Hill*.¹³³ British Horseracing Board (BHB) had spent £4 million per annum on obtaining, verifying and presenting its data. This had involved a lot of work and contributions from approximately 80 employees. Furthermore:

“Over the years, a huge amount of information had been accumulated on the database, and an estimated total of 800,000 new records or changes to existing records were made each year. A painstaking process of verification of pre-race information was undertaken to ensure complete accuracy and reliability. The cost of running the database was a little over 25 per cent of the BHB’s annual expenditure”.¹³⁴

The ECJ, in its judgment, held that “[t]he resources used to draw up a list of horses in a race and to carry out checks in that connection do not constitute investment in the obtaining and verification of the contents of the database in which that list appears”.¹³⁵ The English Court of Appeal ultimately decided that there was no database infringement. The BHB provided only the list of owners, horses and jockeys and these data were not collected from their owners. Providing a list is a rather lower form of investment than the thesis identified process of data mining which works out useful data patterns in digital databases. A mere list, such as that provided by BHB in their fixtures list itself

¹³² See Chapter 1 at 1.6.2. Link between protection and investment.

¹³³ [2001] RPC 612 [The first judgment of the High Court on database rights].

¹³⁴ *The British Horseracing Board Limited and Others v William Hill Organization Limited* [2005] EWCA Civ.863, [2006] ECC 16.

¹³⁵ *The British Horseracing Board*, *ibid.*, at head note 3.

does not provide new knowledge. However, this situation is different when considering the function of computer programs in digital databases. Computer programs in digital databases can manipulate data in a list since the list is in digital format. Computer programs can elaborate on data in a particular list at the demand of users. For example it can offer 'search within a search'. This process enhances the usefulness of data which brings value to the particular useful data. Thus, this function adds new value to the data in digital databases and, therefore, needs to be identified in order to be protected as an investment.¹³⁶

The Court of Appeal further held that the fixtures lists are new independent material. These lists provided only the names of runners and riders.¹³⁷ According to the thesis' understanding these are mere data which can be used for the process of data mining and KDD. The case has raised the issue of potential misunderstanding of the facts by the ECJ.¹³⁸ When this issue was raised in *Football Dataco Ltd and others v. Yahoo! UK Ltd and others*, the Court of Appeal did not answer the question of 'extraction of substantial part'.¹³⁹ In relation to this thesis scenario, this extraction can be brought about by the functions of computer programs in digital databases. They enhance the value or usefulness of data (these data may be in lists) in digital databases. Therefore, functions of computer programs represent a substantial investment in digital

¹³⁶ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

¹³⁷ *The British Horseracing Board* [2005] RPC 35 at para 23.

¹³⁸ *The British Horseracing Board, ibid.*, at para 21.

¹³⁹ *Football Dataco Ltd and others v Yahoo! UK Ltd and others* (Case C-604/10) [2012] 2 CMLR 24 at footnote 7 and para AG14.

databases. This needs to be protected in order to attract future investors to the digital database field.

The following gives the background to *Fixtures Marketing v. Oy Veikkaus AB*.¹⁴⁰

The claimant (F) was a UK company which granted licenses to use UK football game lists outside the UK. The action brought by the claimant was against Finland's football pools company (V), for its alleged use of the Claimant's data/information without license, in contravention of the database right. Claimant sought a declaration that its game list was a protected database in terms of the Database Directive, and by using games as objects of betting from the list of Claimant, without the authority, V and its Swedish Counterpart infringed the database right.¹⁴¹

However, these fixtures lists do not provide new value or usefulness unless they are in useful or meaningful patterns. As this thesis identifies, this is an activity that is carried out by the functions of computer programs in digital databases. These patterns can be used in the process of KDD. As this case shows, investment can be considered under the *sui generis* right protection to the extent that the lists have useful presentation and/or verification. In this regard, it was stated in *Football Dataco Ltd and others v Yahoo! UK Ltd* that:

“It may be remarked, incidentally, that the Italian version of Article 7 of the Directive seems to require that the significant investment be expended in the obtaining, verification and presentation of the data. The other language versions, on the other hand, hold the conjunction or and the interpretation provided by the Court is consistent with those versions: significant investment can justify protection even if it

¹⁴⁰ (Case C-46/02) [2004] ECR I-10365, [2005] ECDR 2.

¹⁴¹ Case Analysis, *Fixtures Marketing Ltd v Oy Veikkaus AB* (C-46/02) European Court of Justice 09 November 2004 [2004] ECR I-10365, [2005] ECDR 2.

concerns only the obtaining, or only the verifying or only the presentation of the data".¹⁴²

This argument elaborates the main functions of computer programs attached to a database. The process of KDD, with the contribution of the computer programs that have been installed, works out the processes of data obtaining, verifying and presentation in digital databases in an efficient manner.¹⁴³ Therefore, identification of the contribution of computer programs helps to identify the substantial investment made in digital databases.

On 1 March 2012, the ECJ, in *Football Dataco Ltd and others v. Yahoo! UK Ltd and others*¹⁴⁴ held that online football fixtures lists are protected by copyright law when the compilations are the author's own intellectual creations. However, these compilations require "very significant labour and skill".¹⁴⁵ This refers to the substantial investment of the databases which need to be addressed in order to consider the protection. The *Football Dataco* decision discusses the data trading fields. In order to license a database, it needs to be ensured that the compilations are presented in an adequately original 'creative aspect' which is sufficient for copyright protection.¹⁴⁶ This thesis suggests that this creativity is done by the computer program and or human involvement in digital

¹⁴² *Football Dataco Ltd and others v Yahoo! UK Ltd and others* (Case C-604/10) Before the Court of Justice (Third Chamber) 1 March 2012 [2012] 2 CMLR 24 at footnote 7, para AG14.

¹⁴³ Goebel *et al.*, 'A Survey of Data Mining and Knowledge Discovery Software Tools' at 21; Fayyad *et al.*, 'From data mining to knowledge discovery in databases' at 39.

¹⁴⁴ *Football Dataco Ltd and others v Yahoo! UK Ltd and others* (Case C-604/10) [2012] 2 CMLR 24.

¹⁴⁵ *Football Dataco*, *ibid.*, at para 19.

¹⁴⁶ *Football Dataco*, *ibid.*, at para AG35.

databases.¹⁴⁷ In this case, Football Dataco Ltd and the other applicant companies organised the English and Scottish football leagues. At the same time, they produced online fixtures lists which provided scores and details about matches. The opposing parties, Yahoo! UK Ltd and others, used those fixtures lists to provide news, information and organise betting activities.¹⁴⁸ This means that Yahoo's betting business depended to a large extent on Football Dataco's data. Football Dataco claimed that Yahoo! UK Ltd had infringed copyright under the CDPA 1988 and their rights under Articles 3 and 7 of Database Directive by using this data without having a proper licence to do so.

The ECJ held that "the selection or arrangement of the data was an original expression of the creativity of the author of the database, it was irrelevant for the purpose of assessing the eligibility of the database for the copyright protection provided for by the [Database] Directive whether or not that selection or arrangement included 'adding important significance' to those data".¹⁴⁹ In this regard, this thesis considers that adding value to the data is a significant issue in line with the protection of digital databases. If this 'significance' was ignored then the contribution of computer programs and humans, which was used to improve the value of data, would also have to be ignored. However, in *Football Dataco Ltd and others v. Yahoo! UK Ltd*, "it was apparent from both a comparison of the terms of Article 3(1) and Article 7(1) of the Database

¹⁴⁷ See Chapter 3.

¹⁴⁸ *Football Dataco Ltd and others v Yahoo! UK Ltd and others* (Case C-604/10) [2012] 2 CMLR 24 at para AG5.

¹⁴⁹ *Football Dataco, ibid.*, at 705.

Directive¹⁵⁰ and from other provisions, in particular Article 7(4) and Recital 39, that the copyright and the *sui generis* right amounted to two independent rights whose object and conditions of application were different”.¹⁵¹ As a result, “a database within the meaning of Article 1(2) of the Database Directive, did not satisfy the conditions of eligibility for protection by the *sui generis* right under Article 7, as the Court had held in relation to football fixtures lists, did not automatically mean that the same database was also not eligible for copyright protection under Article 3”.¹⁵²

¹⁵⁰ Council Directive 96/9 EC (OJ L 077/20).

¹⁵¹ *Football Dataco Ltd and others v Yahoo! UK Ltd and others* (Case C-604/10) [2012] 2 CMLR 24 at para 27.

¹⁵² *Football Dataco*, *ibid.*, at para 28 and this followed by *Fixtures Marketing Ltd v Oy Veikkaus AB* (C-46/02) [2004] ECR I-10365 ; *Fixtures Marketing Ltd v Svenska Spel AB* (C-338/02) [2004] ECR I-10497; *Fixtures Marketing Ltd v Organismos Prognostikon Agonon Podosfairou* (OPAP) AE (C-444/02) [2004] ECR I-10549, [2005] 1 CMLR 16.

6.5. The identification of the quantitative or qualitative nature of the substantial investment as a means of protecting and attracting investment

As this thesis suggested earlier in this Chapter,¹⁵³ any investment needs to be protected in order to attract investment to the digital database field. An investment needs to be protected despite its amount and nature. Consideration only needs to be given to the contribution of enhancing the value or usefulness of data. In this regard, investment may have been involved with the primary activities in the process of creation of data¹⁵⁴ or enhancing the value of data.¹⁵⁵

The Database Directive¹⁵⁶ does not itself define the two terms ‘quantitative’ and ‘qualitative’. In *British Horseracing Board Ltd and others v. William Hill Organisation Ltd* it was held that:

“The expression ‘substantial part, evaluated ... quantitatively’ of the contents of a database, within the meaning of article 7(1) of the Directive, refers to the volume of data extracted from the database and/or re-utilised, and must be assessed in relation to the volume of the contents of the whole of that database. If a user extracts and/or re-utilises a quantitatively significant part of the contents of a database whose creation required the deployment of substantial resources, the investment in the extracted or re-utilised part is, proportionately, equally substantial”.¹⁵⁷

The quantitative substantial investment is money and/or time that is spent setting up the digital database, while the qualitative substantial investment is

¹⁵³ See this Chapter at 6.4. Substantiality of the investment.

¹⁵⁴ J Krikke, ‘Netherlands: database rights: substantial investment’ (Case Comment) (2007) 29/5 EIPR N73 N74.

¹⁵⁵ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

¹⁵⁶ Council Directive 96/9 EC (OJ L 077/20).

¹⁵⁷ *British Horseracing Board Ltd and others v William Hill Organisation Ltd* [2009] Bus LR 932 at para 71.

the physical and intellectual effort and energy used to set up the digital database.¹⁵⁸ The objective of this thesis is to protect those two types of substantial investment because the recommendations are based on the protection of both financial and non-financial investment.¹⁵⁹ The broad interpretation of substantial investment helps to attract more investors to the digital databases arena in Sri Lanka.

The quantitatively substantial and qualitatively substantial expenditure will coincide when considerable investments have been made in a new business idea. At the same time, “the qualitative aspect of the concept of substantial investment can, in rare cases, have a supplementary function in which an even very small investment can appear worthy of protection.”¹⁶⁰ Derclaye argues that “[q]uantitatively’ does not refer to the quantity of data in the database, nor the quantity of the investment, but rather to the type of investment”.¹⁶¹ The type of investment may refer to the quality of the investment. The thesis suggests that the enhanced value and/or the usefulness of the data in digital databases should be considered as the ‘quality’ of the investment.¹⁶² The process of data mining and KDD produces qualitatively high value data rather their quantitative. The investment in databases can also be made through the means of time,

¹⁵⁸ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 91.

¹⁵⁹ See Chapter 1 at 1.6.2. Link between protection and investment.

¹⁶⁰ Leistner, ‘Legal protection for the database maker: initial experience from a German point of view’ at 448-449.

¹⁶¹ Derclaye, *supra* n.158, 91.

¹⁶² See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

effort or money¹⁶³ and it is ultimately something which should be measured in monetary or financial meaning. However, this argument does not comply with the moral rights in intellectual property law.¹⁶⁴ Therefore, this thesis suggests assessing qualitative substantial investment in the process of enhancing the value of data in digital databases rather than quantitative investment, because a qualitative investment assessment investigates the intellectual effort made in digital databases. The aforesaid process of data mining and KDD is a result of, more specifically, the contribution of computer programs and human involvement in digital databases.¹⁶⁵

The term 'quality' may refer to either value in the investment or the value as reflected in the potential demand for the given 'information'.¹⁶⁶ Quantity, on the other hand, "is measured against the totality of entries, irrespective of whether some sufficient investment has preceded...Qualitative taking is construed so as to cover acts of extractions according to the value of information".¹⁶⁷ The assessment of the quality of data further links to the argument of enhancement

¹⁶³ Derclaye, *supra* n.158, 91; And these wordings have been used and implied by different jurisdictions. For example, Germany. The term "substantial" ("*wesentlich*") used both in the Directive and in the text of the German legislation meant "that not any and every investment of money, time and effort will be sufficient." Leistner, 'Legal protection for the database maker: initial experience from a German point of view' at 448-449.

¹⁶⁴ " 'Signatories to the Berne Convention are in theory required to recognize certain minimal moral rights protections for authors, including the right to retribution of authorship and the right to object to modification to the work.' Berne Convention for the protection of Literary and Artistic Works, Sept. 9, 1886, art. 6th, S.TREATY DOC. NO.99-27, at 5 (1986), 828 UNTS 221, 235". cited in MA Lemley, 'Economics of Improvement in Intellectual Property Law' (1996- 1997) 75 TLR 989 at 1031; Davison, *The Legal Protection of Databases* 76.

¹⁶⁵ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

¹⁶⁶ G Westkamp, 'Protecting databases under US and European law - methodical approaches to the protection of investments between unfair competition and intellectual property concepts'(2003) 34/7 IRIPCL 772 at 788 [hereafter Westkamp, 'Protecting databases under US and European law'].

¹⁶⁷ Westkamp, 'Protecting databases under US and European law' at 785.

of value of data which refers to the involvement of computer programs in digital databases.¹⁶⁸ The enhancement of value or usefulness of data in digital databases is a quality enhancement using “computational techniques to help us unearth meaningful patterns and structures from the massive volumes of data”.¹⁶⁹ However, these two terms, i.e. qualitative and quantitative, are interconnected and interdependent in terms of investment in databases.

Westkamp states that:

“It is apparent that these terms do not form severable issues. Both are interconnected: firstly, because quantitative taking cannot be established without taking the type of investment into consideration; secondly, the maker’s interests are violated only when he can establish that taking a certain quantity would endanger his investment in the presentation in cases in which no investment in obtaining the data preceded”.¹⁷⁰

Therefore, the arrangement of the data is “original and represents a qualitatively substantial investment, and then there is a coincidence between a qualitatively substantial investment and originality”.¹⁷¹ This behaviour reflects the suggestion made by this thesis that the enhanced value of data represents the qualitative investment. The requirement of ‘substantial investment’ comes under *sui generis* right protection whereas the requirement of ‘originality’ is related to the copyright protection.¹⁷² Therefore the suggestion of the thesis to make available a bundle of protection mechanisms/rights is practical. Derclaye confirms this

¹⁶⁸ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data and Chapter 3.

¹⁶⁹ Fayyad *et al.*, ‘From data mining to knowledge discovery in databases’ at 38; See Chapter 1 at 1.5. *ibid.*

¹⁷⁰ Westkamp, ‘Protecting databases under US and European law’ at 799.

¹⁷¹ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 91-92, with refer to Davison, *The Legal Protection of Databases* 84.

¹⁷² See Chapter 2 at 2.3. Tables, Compilations and databases under Copyright Law.

point: “two types of protection which is copyright and *sui generis* right attach to the same database: while one protects the structure, the other protects the content”.¹⁷³

6.6. Substantial investment in obtaining, verification and presentation

The digital nature of databases helps to enhance the value and/or usefulness of data because it allows for the data mining process which creates useful data patterns. Databases, without specifying their digital nature, can be defined as “a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means”.¹⁷⁴ The digital databases comprise of data and computer programs as this thesis suggests throughout.¹⁷⁵ The computer programs enhance the value and/or usefulness of data content in digital databases. In this enhancement process computer programs first engage in ‘data mining’¹⁷⁶ and subsequently engage in KDD.¹⁷⁷ Computer programs in digital databases and data in database content are interdependent and work together. Only mere data are not considered a ‘digital’ database – which could include computer programs if they consist only of such data. Meaningful merging of these two components creates a digital database.

¹⁷³ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 92; E Derclaye, ‘Databases sui generis right: should we adopt the spin off theory?’ (2004) 26/9 EIPR 402 at 410.

¹⁷⁴ Council Directive 96/9 EC (OJ L 077/20), art. 1(2).

¹⁷⁵ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data and Chapter 3.

¹⁷⁶ Fayyad *et al.*, ‘From data mining to knowledge discovery in databases’ at 39.

¹⁷⁷ See Chapter 1 at 1.5. *supra* n.175; Goebel *et al.*, ‘A Survey of Data Mining and Knowledge Discovery Software Tools’ at 20.

In the process of KDD, the data is obtained first in order to work out the useful data patterns. This initial activity is identified as data mining.¹⁷⁸ In the middle of this process, data are verified according to the purpose of the data mining.¹⁷⁹ Then the process of KDD presents those data patterns in order to enhance the value and/or usefulness of data.¹⁸⁰ This process denotes the substantial investment in obtaining, verification and presentation in line with *sui generis* right protection under the Database Directive. However, this Directive purposely removes the computer programs used in the making or operation of databases accessible by electronic means.¹⁸¹ This thesis deviates from this view of the Database Directive because it focuses on 'digital' databases and the process of enhancement of value and/or usefulness of data.¹⁸² It is the digital nature of digital databases that enhances the value and/or usefulness of data.¹⁸³ With this in mind, this thesis examines the substantial investment in obtaining, verification and presentation in line with the *sui generis* right protection.

¹⁷⁸ Fayyad *et al.*, *supra* n.176, at 39.

¹⁷⁹ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

¹⁸⁰ Goebel *et al.*, 'A Survey of Data Mining and Knowledge Discovery Software Tools' at 21; Fayyad *et al.*, 'The KDD Process for Extracting Useful Knowledge from Volumes of Data'; Fayyad *et al.*, *supra* n.176, at 39.

¹⁸¹ Council Directive 96/9 EC (OJ L 077/20), art. 1(3).

¹⁸² The exclusion of the computer program from *sui generis* protection under the Database Directive leads towards a doubtful situation. See *inter alia* Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 67-72.

¹⁸³ See Chapter 1 at 1.5. *supra* n.179.

6.6.1. “Obtaining”

There are two types of possibilities, broad and narrow, in relation to interpreting the term obtaining within substantial investment.¹⁸⁴ The expression “investment in ... the obtaining,¹⁸⁵ verification or presentation of the contents of a database must be understood, generally, to refer to investment in the creation of that database as such”.¹⁸⁶ The creation of databases starts from the process of compilation¹⁸⁷ and data compilations are protected as databases by copyright.¹⁸⁸

“A ‘compilation’ is a work formed by the collection and assembling of pre-existing materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship”.¹⁸⁹

¹⁸⁴ Council Directive 96/9 EC (OJ L 077/20), recital 39.

¹⁸⁵ “This term refers primarily to the act of gathering, collecting or compiling data, works or other materials that already existed before the database was produced.” PB Hugenholtz, ‘Event Data and Telephone Subscriber Listings under the Database Directive -The ‘Spin-Off’ Doctrine in the Netherlands and elsewhere in Europe’ (Eleventh Annual Conference on International IP Law & Policy, Program Schedules, Fordham University School of Law, New York, 14-25 April 2003) (Internet) <<http://www.ivir.nl/publications/hugenholtz/spinoffordham.html>> accessed 12 August 2012.

¹⁸⁶ *Football Dataco Limited, The Scottish Premier League Limited, The Scottish Football League, PA Sport UK v Sportradar GMBH (a company registered in Germany), Sportradar AG (a company registered in Switzerland)* [2012] EWHC Ch 1185, 2012 WL 1555238 at paras 33 and 34.

¹⁸⁷ The US Copyright Office has stated that “[i]n the terminology of copyright law, a database is a compilation: a work formed by the collection and assembling of pre-existing materials or of data...”. D Lanzotti, D Ferguson, ‘Databases and The Law’ (This paper was prepared for Prof. Laura Gasaway’s Cyberspace Law course at the UNC School of Law for Spring, 2006)(Internet)<http://www.unc.edu/courses/2006spring/law/357c/001/projects/dougf/node_1.html> accessed 16 April 2013.

¹⁸⁸ Lists of share prices- *Exchange Telegraph Co Ltd v Gregory & Co* (1896) 1QB 147, Alphabetical index of Railway stations- *H Blacklock Co v C. Arthur Pearson Ltd* (1915) 2Ch 376, List of football coupons- *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (1964) 1 WLR 273; See Chapter 2 at 2.3.Tables, Compilations and databases under Copyright Law.

¹⁸⁹ 17 USC § 101 (1988) cited in JF Hayden, ‘Copyright Protection of Computer Databases After *Feist*’(1991-1992) 5 HJLT 215 at 218; In the UK, CDPA 1988, s 3(1)(a); In Sri Lanka, IP Act of 36/2003/SL, s 7(1)(b).

In digital databases this compilation task is worked out by computer programs. The computer programs first collect and assemble the data in order to prepare for the purpose of setting up useful data patterns. In this process, data are selected, coordinated, and/or arranged by the computer programs at the command of the digital database author. The final purpose of this process is to enhance the value or usefulness of data. In other words, the fruit of this process is valuable and useful data. The computer programs have been invested in, in financial and human terms, in order to produce this enhanced data. This process needs to be worked out with investment. Therefore, obtaining data denotes the investment and this investment needs to be protected. However, the protection should depend on the connection between obtaining and value/usefulness enhancement.

In the *British Horseracing Board*, the Court held that:

“[The] investment in the selection, for the purpose of organising horse racing, of the horses admitted to run in the race concerned relates to the creation of the data which make up the lists for those races which appear in the BHB database. It does not constitute investment in obtaining the contents of the database. It cannot, therefore, be taken into account in assessing whether the investment in the creation of the database was substantial”.¹⁹⁰

In this regard, the Courts depend on Recital 39 of the Database Directive. This states the aim of the *sui generis* right protection which is to:

“[S]afeguard the position of makers of databases against misappropriation of the results of the financial and professional investment that have been made in obtaining and collecting the contents by protecting the whole or substantial parts of a database against certain acts by a user or competitor”.¹⁹¹

¹⁹⁰ *The British Horseracing Board Limited, The Jockey Club, Weatherbys Group Limited v William Hill Organisation Limited* [2005] EWCA Civ 863 at para 45.

¹⁹¹ Council Directive 96/9 EC (OJ L 077/20), recital 39.

For example, this is done through parallel digital databases. If the court in *British Horseracing Board*¹⁹² made a connection between obtaining and enhancement of value and/or usefulness then the decision (the investment in the selection, in making up the lists for those races does not constitute investment in obtaining) would be different. This shows the need to identify the role of computer programs in digital databases. This is one of the main themes in this thesis.¹⁹³

With the support of Recital 19, Recital 39 reflects the narrow interpretation of the meaning of 'obtaining' in that it does not allow inclusion of the idea of selection (as in the *BHB* case) from the process of creating the database.¹⁹⁴

This is further confirmed in *Fixtures Marketing Ltd v Svenska Spel AB*.¹⁹⁵ The European Court of Justice held that:

“[T]he resources used for the creation as such of works or materials included in the database, in this case on a CD, cannot be deemed equivalent to investment in the obtaining of the contents of that database and cannot, therefore, be taken into account in assessing whether the investment in the creation of the database was substantial”.¹⁹⁶

This thesis slightly deviates from this narrow interpretation as it argues that the process of enhancing value of data in digital databases depends on the existing

¹⁹² [2005] EWCA Civ 863.

¹⁹³ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data and Chapter 3.

¹⁹⁴ *British Horseracing Board Ltd v William Hill Organization Ltd* (BHB decision), C-203-02, [2004] ECR I-10415; *Fixtures Marketing Ltd v Svenska Spel AB* (Svenska), C-338/02, [2004] ECR I-10497; *Fixtures Marketing Ltd v Organismos Prognostikon Agonon Podosfairou EG* (OPAP), C-444/02, [2004] ECR I-105449; *Fixtures Marketing Ltd v Oy Veikkaus Ab* (Oy Veikkaus), C-46-02, [2004] ECR I-10365.

¹⁹⁵ C-338/02, [2004] ECR I-10497.

¹⁹⁶ *Fixtures Marketing Ltd*, *ibid.*, at para 26.

data which may be the content of other databases. Online digital databases are interconnected and their process depends on each other's data contents. For example, the Internet is a giant digital database which connects with hundreds of millions of other online digital databases. Therefore, if this proposed system relied on the aforementioned narrow interpretation of obtaining, it may have to leave the 'digital' database without protection.

The spin-off theory has been deemed outdated by the ECJ as it reflects the difficulties in establishing a substantial investment test in obtaining data in databases: "The spin-off theory held that if a database were a 'side-product' of another primary activity, any investments in that primary activity would not qualify as an investment in the obtaining, collection or presentation of data in the database".¹⁹⁷

An examination of this point can be found in the case *NVM v. Zoekallehuizen.nl*.¹⁹⁸ In this case, Zoekallehuizen.nl (ZAH), in English "searchallhouses.nl"¹⁹⁹ the defendant, operated an on line search engine for Internet searching for private real estate for sale. ZAH conducted a search using some property databases such as NVM (the Dutch association of estate agents), brokers' databases and the summary of the result was demonstrated on screen along with a deep link to the main website where the detailed

¹⁹⁷ J Krikke, 'Netherlands: database rights: substantial investment' (Case Comment) (2007) 29/5 EIPR N73 at N74.

¹⁹⁸ Court of Appeal Arnhem, 4 July 2006, 06/416, *NVM v Zoekallehuizen.nl*, LJN AY0089 (appeal case – summary proceedings) Directorate for Financial and Enterprise Affairs Competition Committee- Organisation de Coopération et de Développement Economiques Organisation for Economic Co-operation and Development, 'Annual Report on Competition Policy Developments in The Netherlands-2006' DAF/COMP (2007) 24/15.

¹⁹⁹ J Brink, 'Dutch real estate search engine found to provide lawful deep linking to websites of realtors' (2006) 1/8 OJL-JIPLP 510.

information was enclosed/stored. The interim intervention of the plaintiff was based on the fact that database rights in the databases of the members of ZAH, the copyright in the collected descriptions and the copyright in the photographs of the properties were infringed by ZAH. Plaintiff also brought the charges on unfair competition. The defence argument was that plaintiff acted in contravention of the antitrust legislation by providing advises to their members to have technological strategies in place so as to restrict the access of the ZAH to the websites of such members.²⁰⁰ NVM failed to prove that their investments were substantial within the meaning of qualitative and quantitative and failed to provide evidence of maintenance of the information. The effect of the decision was that NVM was left without database rights. The court found that “costs (probably for software) related to inserting data, once created, into a database, the systematic arranging of the data (in order of object, place or price), the linking of the data to the search utility, and the updating of the data”.²⁰¹ This systematic arranging is the basis of data mining which builds up the useful data patterns in order to process KDD.²⁰² Search utility and updating of the data are part of enhancement of value and/or usefulness of data. This reflects the argument of this thesis, that the role of computer programs in digital databases represents a substantial investment. This investment needs to be protected. As this thesis points out, therefore it is important to identify the role of the computer program in order to provide protection.

²⁰⁰ J Krikke, ‘Netherlands: database rights: substantial investment’ (Case Comment) (2007) 29/5 EIPR N73.

²⁰¹ J Brink, *supra* n.199.

²⁰² Fayyad *et al.*, ‘From data mining to knowledge discovery in databases’ at 39; Goebel *et al.*, ‘A Survey of Data Mining and Knowledge Discovery Software Tools’ at 21.

6.6.2. “Verification”

The meaning of “verification” within Article 7(1) is not as perplexing as that of “obtaining”. In *British Horseracing*, Advocate General Stix-Hackl observed that:

“It is essentially a matter of monitoring the ‘materials’ of a database in respect of completeness and accuracy, which includes checking whether a database is up to date. However, the outcome of such verification could also require the obtaining of data and their entry in the database”.²⁰³

Under the *sui generis* protection, database owners and authors should qualify for the protection as far as value is added through the verification or presentation.²⁰⁴ As this thesis suggests, computer programs add value to the data through the verification and/or presentation process. In other words, computer programs keep digital databases up to date. Data mining and KDD verify and present data in order to enhance the value and/or usefulness of that data.²⁰⁵

In *Fixtures Marketing Ltd v Svenska Spel AB* the European Court of Justice held that investment in the verification of the contents of a database “must be understood to refer to the resources used, with a view to ensure the reliability of the information contained in that database, to monitor the accuracy of the materials collected when the database was created and during its operation”.²⁰⁶

Computer programs, along with their functions of obtaining and collecting data are also involved in the creation and operation of digital databases. The

²⁰³ *BHB* at para 52 cited in T Aplin, ‘The EU database right: recent developments’ (Case Comment) 2005 1 IPQ 52 at 58.

²⁰⁴ JC Ginsburg, ‘Copyright, Common Law, and Sui Generis Protection of Databases in the United States and Abroad’ (1997- 1998) 66 UCLR 151 at 174.

²⁰⁵ Goebel *et al.*, *supra* n.202, at 21; Fayyad *et al.*, *supra* n.202, at 39.

²⁰⁶ *Fixtures Marketing Ltd v Svenska Spel AB* [2005] ECDR 4 at para 27.

purpose of the operation of digital databases is to enhance the value and/or usefulness of the data. Therefore, the functions of the computer programs in digital databases cover the substantial investment of verification requirement under the *sui generis* right protection.

Therefore, in line with data mining and KDD, “[v]erification obviously relates to the checking, correcting and updating of data already ... existing in the database”.²⁰⁷ However, as a result of the process of verification, the database does not change its elements and then there should be a substantial investment. Recital 55 provides that: “if substantial investment is put into ensuring the database is accurate, even if the contents do not change, it is protected by the *sui generis* right”.²⁰⁸ The existing databases get protection upon verification. Therefore verification should be applied not only before entering the data but also the existing data should be verified. According to Aplin, “some verifications occur before data is included in a database. It does not affect the status of other monitoring activities which are undertaken after the data has been entered in the database”.²⁰⁹ Computer programs bring usability and ease to the verification process. Therefore, functions of computer programs in relation to verification need to be protected because it denotes the substantial investment.

²⁰⁷ PB Hugenholtz, ‘Event Data and Telephone Subscriber Listings under the Database Directive-The ‘Spin-Off’ Doctrine in the Netherlands and elsewhere in Europe’ (Eleventh Annual Conference on International IP Law & Policy, Program Schedules, Fordham University School of Law, New York, 14-25 April 2003) (Internet) <<http://www.ivir.nl/publications/hugenholtz/spinofffordham.html>> accessed 12 August 2012; E Derclaye, ‘The Court of Justice interprets the database *sui generis* right for the first time’(2005) 30/3 ELR 420 at 428.

²⁰⁸ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 97.

²⁰⁹ T Aplin, ‘The EU database right: recent developments’ (Case Comment) (2005) 1 IPQ 52 at 58 and 57.

6.6.3. “Presentation”

Presentation of a database refers to the structuring or organisation of the database. Digital databases represent the notion of presentation in the process of KDD, i.e. through enhancement of value or usefulness of data. Furthermore, presentation of a database consists of the way that it is made accessible to users.²¹⁰ Computer programs help in this regard and accelerate the accessibility and presentation functions. Koo notes that “‘Presentation’ concerns the structured arrangement of the collected materials and the organisation of their individual accessibility, so as to give a database its function of processing information”.²¹¹ The function of processing data is a part of the enhancement of value and/or usefulness of data and is represented by data mining and KDD.²¹² Therefore, the contribution of computer programs in digital databases comes under the requirement of substantial investment of *sui generis* right protection.

Not all digital databases are in an online format but all online databases are digital. For example, online digital database - on line digital libraries²¹³ and offline database - a CD-ROM.²¹⁴ According to Davison, “[u]nlike hardcopies of

²¹⁰ Council Directive 96/9 EC (OJ L 077/20), art. 1(2).

²¹¹ A Koo, ‘Database right decoded’ (2010) 32/7 EIPR 313 at 315; *BHB* [2004] ECR I-10415; [2005] 1 CMLR 15 at para 36; *Fixtures Marketing* (Finland) [2004] ECR I-10365 at para 37; *Fixtures Marketing* (Sweden) [2004] ECR I-10487 at para 27; *Fixtures Marketing* (Greece) [2004] ECR I-10549; [2005] 1 CMLR 16 at para 43.

²¹² Conley *et al.*, ‘Database Protection in a Digital World’ at para 14; Goebel *et al.*, ‘A Survey of Data Mining and Knowledge Discovery Software Tools’ at 21; Fayyad *et al.*, ‘From data mining to knowledge discovery in databases’ at 39.

²¹³ Commission on Preservation and Access and The Research Libraries Group, ‘Preserving Digital Information, Report of the Task Force on Archiving of Digital Information’ (May 1, 1996) (Internet) <<http://www.clir.org/pubs/reports/pub63>> accessed 05 May 2013.

²¹⁴ Westkamp, ‘Protecting databases under US and European law’ at 792; Leistner, ‘Legal protection for the database maker: initial experience from a German point of view’ at 444.

databases, the continued presentation of a database in an on-line format may require considerable ongoing investment in the maintenance of the database”.²¹⁵ This ongoing investment fulfils the requirement of substantial investment that lies with *sui generis* rights protection.²¹⁶ However, at this juncture, Davison points out that:

“There is then an issue as to whether the relevant investment in the presentation of the database is restricted to the investment in the initial presentation of the database, or whether it includes the ongoing costs of presenting or maintaining the database”.²¹⁷

This reflects the difference between the presentation of data and maintaining data in a database and points to the problem of the lapsing of the time period of database protection. In other words, if maintaining the data reflects the substantial investment under the *sui generis* protection, the protection time period of a database may start according to the maintenance time and this may be an endless process. In order to overcome this problem, this research suggests considering the maintenance of data as part of setting up the database. Maintenance of the digital database brings updates to the database which enhances the usefulness of the database. The maintenance of data is treated as part of the setting up of the database, the time period for database protection then goes back to the date of commencement of the database.

This thesis focuses on both the structure and content of digital databases in relation to legal protection. The *sui generis* right protects the content of

²¹⁵ Davison, *The Legal Protection of Databases* 86.

²¹⁶ Y Tian, ‘Reform of Existing Database Legislation and Future Database Legislation Strategies: Towards a Better Balance in the Database Law’ (2004-2005) 31 RCTLJ 347 at 376; M Pollack, ‘The Right To Know?: Delimiting Database Protection at the Juncture of the Commerce Clause, the Intellectual Property Clause, and the First Amendment’ (1999) 17 CAELJ 47 at 49.

²¹⁷ Davison, *The Legal Protection of Databases* 86-87.

databases with reference to the investment to obtain, verify or present them as stated in Article 7(1) of the Database Directive. However substantial investment addresses the presentation of data. A digital database contains raw digital data which can be a source of knowledge,²¹⁸ entertainment value,²¹⁹ health issues,²²⁰ or financial information²²¹. The computer programs in digital databases can be used to manipulate these raw data in order to enhance the value and/or usefulness of data.²²² Conley *et al.*, write that:

“A fully developed [digital] database is an interrelated set of components capable of generating value from the collection, processing, merger, storage, or dissemination of data. In practice, databases are arrayed along a continuum according to where their primary value lies”.²²³

In digital databases, the presentation of data is provided by the installed computer program. This thesis identifies the protection of this computer program as a separate issue and tries to find out the availability of patent protection on the same.²²⁴ The reason behind this is that ‘the patent provides a

²¹⁸ The case reports, journal articles, legislative instruments statutes/regulations and current awareness are raw data in digital legal resource databases such as Westlaw UK and HeinOnline.

²¹⁹ BBC iPlayer <<http://www.bbc.co.uk/iplayer/>>, Blinkbox <<http://www.blinkbox.com/>>, Movie2k <<http://www.movie2k.to/genres-movies.html>> accessed 1 May 2013, These databases comprise films, drama and documentary.

²²⁰ For example - Database of ‘The National Institutes of Health’ in the US. <<http://www.nih.gov/about/>> accessed 1 May 2013.

²²¹ European commission’s databases of ‘Economic and Financial Affairs’ <http://ec.europa.eu/economy_finance/db_indicators/> accessed 1 May 2013.

²²² See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

²²³ Conley *et al.*, ‘Database Protection in a Digital World’ at para 13.

²²⁴ See Chapter 3.

strong protection and helps to attract investors²²⁵ to developing countries. Therefore, a protection mechanism for the protection of digital databases along with the intention of attracting investment to Sri Lanka needs to include patent protection. The failure of copyright protection of computer programs is another reason behind this, as was seen in *SAS Institute Inc. v. World Programming Ltd.*²²⁶ The anti-competitive nature of the *sui generis* right system confirms the need for unfair competition and misappropriation laws. The *sui generis* right system, therefore, confirms the balance between database authors and users. Contract protection also helps to strike a balance between owners and users.²²⁷ Therefore, the proposed protection mechanism should include a bundle of protection systems, each of which can be brought into play when one of the mechanisms fails to deliver appropriate protection.

²²⁵ MW Smith, 'Bringing Developing Countries' Intellectual Property Laws to TRIPs Standards: Hurdles and Pitfalls Facing Vietnam's Efforts to Normalize an Intellectual Property Regime' (1999) 31 CWRJIL 211 at 238; AM Imam, 'How does patent protection help developing countries?' (2006) 3 IRIPCL 245 at 254; Alikhan, *Socio-Economic Benefits of Intellectual Property Protection in Developing Countries* 14; See Chapter 1 at 1.6. The role of investment in database protection.

²²⁶ *SAS Institute Inc. v World Programming Limited* [2013] EWHC Ch 69 at para 15.

²²⁷ See Chapter 5.

6.7. Investment and *sui generis* right in relation to the economic theory

One of the main objectives of this research is to attract investors to Sri Lanka as ‘database protection stimulates economic initiative’.²²⁸ The *sui generis* database protection was introduced in order to protect investments made in making databases such as the process of obtaining, verifying or presenting the contents. In this way, database makers are protected from unauthorised extractions and re-utilisations.

A digital database is a commercial commodity created by the investment of the database owner or author and brings financial incentives to them. Investment is an economic issue²²⁹ which needs to be protected by intellectual property protection.²³⁰ Landes and Posner note that “[i]ntellectual property is a natural field for economic analysis of law”.²³¹ Providing a protection to commercial commodities attracts more users, including data consumers in digital databases, and more investors.²³² Therefore, this thesis proposes a system that mainly looks to *sui generis* right protection for the protection of digital databases in order to attract investment to the Sri Lankan digital database arena.

²²⁸ C Sappa, ‘Public sector databases - the contentions between *sui generis* protection and re-use’ (2011) 17/8 CTRLR 217 at 217.

²²⁹ However, the argument of the thesis on investment refers to both financial and non-financial. See this Chapter at 6.1. Introduction, 6.3. Substantial investment and Chapter 1 at 1.6.2. Link between protection and investment.

²³⁰ See Chapter 1 at 1.6.2. Link between protection and investment.

²³¹ WM Landes, RA Posner, ‘An Economic Analysis of Copyright Law’(June 1989) 18/2 JLS 325 at 325.

²³² See Chapter 1 at 1.6.2. Link between protection and investment.

The *sui generis* right protection allows for the parallel existence of copyright protection.²³³ Arguably, copyright protection has failed²³⁴ to provide adequate protection in some jurisdictions, for example in the USA and Japan.²³⁵ In the United Kingdom, investment in Databases are protected by copyright because the required level of originality is low²³⁶ and it protects only the selection or arrangement of the database and the content.²³⁷ However, this situation is different in most other European countries as the required level of originality for granting the copyright protection in such countries is relatively high. The reason behind this is that copyright protects the structure of a database only if it is original.²³⁸ The investment in the databases is not only related to the structure but also to the content. As mentioned previously, the *sui generis* database protection addresses the investment in obtaining, verifying or presenting the

²³³ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 92.

²³⁴ “[para] 6.3.2 The use of computerized information systems creates problems in three respects from a copyright point of view. First, the question arises as to whether incorporation into a data base of a protected work in its entirety or in part constitutes a restricted act from a copyright point of view. Second, the question arises whether the retrieval of stored information constitutes a restricted act under copyright law. Third, it has been suggested that the question of adequate protection of the compilation of data as such merits consideration”. COM (88) 172 final, at 208; Conley *et al.*, ‘Database Protection in a Digital World’ at paras 37, 38 and 70.

²³⁵ In the US, Copyright Act 1976, 17 USC § 101; In Japan, Article 12bis of Law for Partial Amendments to the Copyright Law, 23rd May 1986.

²³⁶ *University of London Press v University Tutorial Press* [1916] 2 Ch 601 and *Ladbroke v William Hill* [1964] 1 WLR 273(HL) cited in Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 45.

²³⁷ Derclaye, *ibid.*, 45; “All that the appellants can be entitled to protect is the way in which they have arranged the information and presented it in their literature”. *Elanco Products Limited and Another v Mandops (Agrochemical Specialists) Limited and Another* [1980] RPC 213 at 228.

²³⁸ Davison, *The Legal Protection of Databases* 13.

contents of databases.²³⁹ Derclaye's has also noted: "[copyright] protected not only the selection or arrangement of the database but also the content".²⁴⁰

This thesis takes the stance that similar protection available to the selection and arrangement of the database should be applicable to the computer programs which decide the structure of the databases. The contribution of computer programs i.e. the process of enhancing of value and usefulness of data, needs to be protected with acceptable level of protection in line with the needs of developing countries i.e. attraction of investment.²⁴¹ Therefore, this thesis examines the potential for patent protection²⁴² of computer programs that evaluate raw data in digital databases.²⁴³

This thesis stresses the importance of identifying the significance of the computer program for the protection of a digital database.²⁴⁴ Since the computer programs are the products of investment, in order to protect such investments computer programs should also be protected. The *sui generis* right addresses the protection of investment in databases which is also the main argument of this thesis. In fact, legal protection intends to protect the investment in databases and it causes to attract further investment to the digital database

²³⁹ Council Directive 96/9 EC (OJ L 077/20), art. 7(1).

²⁴⁰ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 45.

²⁴¹ Imam, 'How Patent Protection Helps Developing Countries' at 389.

²⁴² See Chapter 3.

²⁴³ K Stephens *et al.*, 'Database rights: CJ confirms that database protection extends to the structure and not the content of the database' (2012) 41/4 CIPAJ 221.

²⁴⁴ See Chapter 3.

field.²⁴⁵ Davison notes that the financial value of databases as commodities depends on the character of the law that governs them and that: “[t]he stronger the rights provided by the law, the more economically valuable the commodity. The weaker the rights, the less valuable the commodity”.²⁴⁶

The protection mechanism for digital databases is divided into two parts: legal and technical. The *sui generis* right protection and others which have been examined in previous Chapters come under the category of legal protection, while TPM, password and watermark systems can be termed technical protection. Davison suggests that legal protection provides and enhances the economic value²⁴⁷ of the database and, therefore, this attracts investment to the field.²⁴⁸ More valuable economic commodities attract financial advantages which give benefits to the investors.

In relation to the *sui generis* right protection, the database owner is given exclusive property rights.²⁴⁹ This allows him to enjoy almost exclusive control of the database and exclude any person for the duration of the protection period, and, in this way, benefit most commercially: “the Directive’s approach to *sui*

²⁴⁵ Council Directive 96/9 EC (OJ L 077/20), art 11; Davison, *The Legal Protection of Databases* 239; C Sappa, ‘Public sector databases - the contentions between *sui generis* protection and re-use’(2011) 17/8 CTRLR 217 at 220-221.

²⁴⁶ Davison, *The Legal Protection of Databases* 240.

²⁴⁷ “Value in relation to trade, industry, and the creation of wealth.” Oxford Online Dictionaries <<http://oxforddictionaries.com/definition/english/economic?q=economic+>> accessed 14 August 2012.

²⁴⁸ See Chapter 1 at 1.6.2. Link between protection and investment.

²⁴⁹ “A property right is a legally enforceable power to exclude others from using a resource, without need to contract with them”. Landes, RA Posner, ‘The Economics of Trademark Law’ at 267; “The right of an owner over property. These generally include rights to use property, and to exclude others from it”. Black *et al.*, *A Dictionary of Economics* 364.

generis rights most closely approximates this approach”.²⁵⁰ The owner’s control provides the possibility of categorising the database users according to their interests from the data that they use and also according to the interests of the owner. While this thesis considers the importance of protecting the non-financial investment, the proposed system would be an access control method and a money-making tool for the database business. This is a kind of investment incentive²⁵¹ which attracts investors. As the money-making process can be considered a reward for investment, investment incentives can be created by increasing its rewards or decreasing its costs.

However, the above mentioned argument is, in some cases, not very realistic.

Herr observes that:

“Even if, theoretically, the granting of absolute property rights can result in the satisfaction of all desire, it is not possible in reality. Price differentials may not be justifiable to the user and there always will be market segments whose needs are not satisfied”.²⁵²

The solution to this practical problem - unjustifiable price differentials for database users - is to maintain the balance between the owners’ monopoly and the users’ demands. One of these monopoly control mechanisms is what has been proposed in this thesis, a ‘digital meeting of the minds’ in relation to contractual protection.²⁵³ The online digital database owner or author has stronger bargaining power over the contractual terms and conditions of the

²⁵⁰ Davison, *The Legal Protection of Databases* 240.

²⁵¹ Black *et al.*, *A Dictionary of Economics* 242.

²⁵² Herr, ‘Is the *Sui Generis* Right a Failed Experiment?’ at 61.

²⁵³ See Chapter 4 at 4.2.2. Digital meeting of the minds.

database contract.²⁵⁴ The digital database owner or author decides the terms and conditions of the online contract with his strong bargaining power and may believe that users have to “accept the record without amendment [or alteration], and without expecting the party to know or understand its terms”.²⁵⁵ The weaker bargaining power lies with the online digital database users. This thesis proposes that a digital meeting of the minds will reduce the owners’ monopoly power and create a fairer balance. The discussion of this notion in *sui generis* right protection confirms the simultaneous practice of two legal regimes i.e. contract protection and the *sui generis* right protection. In other words, as the thesis proposes, a bundle of protection mechanisms is more practical.

Supply and demand as elements of market power in a business, decide the price of the data and usability of the database. A monopoly supplier of a product such as an owner of a database or the services of a database²⁵⁶ has market power.²⁵⁷ Owners can use this market power to improve the database. With this monopoly supply power the owner can decide the price which works out the profits and benefits of the investment on the database. The control of supply and demand helps to attract the investment. However legislative involvement, for example regulatory provisions for deciding the price of data, may reduce this

²⁵⁴ See Chapter 4 at 4.2. Standard Form / Adhesion contracts.

²⁵⁵ JJA Burke, ‘Contract As Commodity: A Nonfiction Approach’ (1999-2000) 24 SHLJ 285 at 288.

²⁵⁶ “Supply means the act of providing a good and service”. Black *et al.*, *A Dictionary of Economics* 436.

²⁵⁷ Black *et al.*, *ibid.*, 284; “Market power is the ability ... to charge excessive price and engage in exclusionary practices to dampen competitive pressure”. C Veljanovski, *Economic Principles of Law* (Cambridge University Press 2007) 72.

natural function of supply and demand in the database business. Davison states that:

“While there is a market for databases [as mentioned previously this is similar to the database business²⁵⁸] in the sense that there is both supply of, and demand for, databases, there is no such thing as the market for any particular database. There are a number of possible markets that can be artificially facilitated by legislation conferring commodity status on databases ... The value of the database would vary according to the period of protection conferred on the database owner, yet that period of protection is basically an arbitrary figure”.²⁵⁹

This value of the data and therefore the value of the database should be a result of a natural function of supply of, and demand for, the database business. In this regard, this thesis suggests minimising the legislative involvement in favour of natural supply and demand.

²⁵⁸ “Business- All forms of industrial and commercial profit-seeking activity.” Black *et al.*, *A Dictionary of Economics* 47, “Market- ...in other cases the market is a network of dealers linked by telephone and computer, and following common trading rules and conventions.” Black *et al.*, *ibid.*, 282; “According to Court of Justice on April 23, 1991, *Hoefner and Elser*, (*Hofner v Macrotron GmbH* (C-41/90) [1991] ECR I-1979 (and also to Court of Justice on June 18, 1998 *Repubblica italiana/Commissione* (C-35/96) [1998] ECR I-3851.) a ‘business’ is a merged organisation of personal, material and immaterial elements, lead by an autonomous physical or legal person whose aim is to be actively involved in economic life and pursuing a determined goal, through a durable and continuous activity, whatever is the nature of its financing, organisational components and other business elements”. C Sappa, ‘Public sector databases - the contentions between sui generis protection and re-use’ (2011) 17/8 CTLR 217 at 218-219.

²⁵⁹ Davison, *The Legal Protection of Databases* 240.

6.8. Infringement of the *sui generis* right

The issue of substantiality is a common one as far as *sui generis* right protection.²⁶⁰ Substantiality of the investment qualifies a *sui generis* right protection.²⁶¹ This may be qualitative or quantitative or both.²⁶² This thesis prefers both versions as far as they represent the enhancement of value and/or usefulness of data in digital databases. This proposal helps to attract the investors because it protects any kind of investment that may be qualitative or quantitative. In the process of making digital databases, substantial investment can be made in obtaining, verifying and/or presenting the data.²⁶³ This notion, substantiality, is therefore the main aspect of the infringement of the *sui generis* right protection in digital databases. However, ‘substantial part’ in Article 7(1) and ‘insubstantial part’ in Article 7(5) are not interpreted in the Database Directive. Therefore, these two terms are open for interpretation on a case by case basis. Furthermore, this thesis suggests defining these terms with the protection of the database owner’s investment in mind. In terms of providing a definition for ‘insubstantial part’, Freedman observes that:

“[I]n terms of infringement, the action was once brought under one of two theories, piracy (unauthorized and substantial copying) or literary larceny (the illegitimate appropriation of the fruits of the author’s labour embodied in the work) combines the two - one may copy an insubstantial amount from the compilation, but beyond that lies the

²⁶⁰ See this Chapter at 6.3. Substantial investment.

²⁶¹ See this Chapter at 6.4. Substantiality of the investment.

²⁶² See this Chapter at 6.5. The identification of the quantitative or qualitative nature of the substantial investment as a means of protecting and attracting investment.

²⁶³ See this Chapter at 6.6. Substantial investment in obtaining, verification and presentation.

possibility of liability for infringement. Thus, the balancing device of substantiality becomes important”.²⁶⁴

This balancing device should address the fruit of the author’s work, i.e. his investment in the database.

There are two parts of the infringement test in a *sui generis* right protection. Article 7(1) of Database Directive provides the first part while Article 7(5) provides the second. Article 7(1) explains that the infringement can be seen when there is ‘an extraction and/or reutilization of the whole or of a substantial part, evaluated qualitatively and/or quantitatively,²⁶⁵ of the content of the database. And further, subsection 5 states that “[t]he repeated and systematic extraction and/or re-utilization of insubstantial parts of the contents of the database implying acts which conflict with a normal exploitation of that database or which unreasonably prejudice the legitimate interests of the maker of the database shall not be permitted”.²⁶⁶

In statutory law, ‘the substantial part’ and the terms ‘qualitatively and/or quantitatively’ are the driving force of the Article 7(1). In relation to the case law, *British Horseracing Board*²⁶⁷ was one of the cases that broadly discussed the infringement of database rights. McGee and Scanlan note that:

“Database rights protect the unlicensed taking and use of information. What William Hill has in mind involves the manipulation of the same information but its presentation in a different manner.

²⁶⁴ CD Freedman, ‘Should Canada Enact a New Sui Generis Database Right?’(2002) 13/1 FIP-MELJ 35 at 58-59 (Internet) <<http://ir.lawnet.fordham.edu/iplj>> accessed 28 August 2012; The Freedman’s observation was based on *Dicks v Yates* 18 ChD 76, 90 (Eng. 1881) and *Ladbroke (Football)* [1964] 1 WLR 273.

²⁶⁵ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 109.

²⁶⁶ Council Directive 96/9 EC (OJ L 077/20), art. 7(5).

²⁶⁷ [2001] EWCA Civ 1268, [2002] ECC 24.

This change would have no impact on the issue of extraction. Substantially the same information, essential for enabling William Hill's customers to place bets, would have to be extracted by William Hill from the RDF or an equivalent source. Infringement of BHB's database right in this respect would be unaffected. Furthermore, I do not see how the modified method of presenting substantially the same data could avoid infringement by re-utilization. If a database happened to be written in English, an unlicensed third party who displayed a substantial part of it would not avoid infringement by doing so in French, German or Chinese ideograms, nor would he avoid infringement if he translated information in denary code or its binary equivalent. As long as substantially the same information is made available on the website, the same acts of extraction and re-utilization will have taken place".²⁶⁸

This quotation points to the nature of digital databases. The digital nature of data provides ease of modification and presentation over original copied data. As noted in the above quotation, data in a digital format can easily be translated into another language. However, this practice would not be avoided by infringement. This thesis identifies this situation as a result of a lack of interpretation of substantiality and proposes a solution that calculates the damage according to the benefit which has been gained or earned by the unlicensed third party. For instance, A has misused B's data and A has earned an amount of money, then that amount is equal to the damage which has been caused in B's database. However, the application of this solution depends on the damage which has been considered to have taken place by the original digital owner or author of the database. The applicability of this solution is void unless the owner or author of the digital database decides that there has been an infringement. The basis of this solution comes from the principle of

²⁶⁸ A McGee, G Scanlan, 'The Database Directive - sui generis and copyright - a practicable distinction?'(2005) 4 JBL 413 at 419-420.

*de minimis non curat praetor*²⁶⁹ which means that there is no need to be concerned with abuse that is trifling.

The suggestions in this thesis are supported by the finding of *BHB* on the connection between Article 7(5) and Article 7(1) of the Database Directive.

Advocate-General Stix-Hackl stated that:

“[T]he purpose of Article 7(5) of the directive is to prevent circumvention of the prohibition in Article 7(1) of the directive. Its objective is to prevent repeated and systematic extractions and/or re-utilisations of insubstantial parts of the contents of a database, the cumulative effect of which would be to seriously prejudice the investment made by the maker of the database just as the extractions and/or re-utilisations referred to in Article 7(1) of the directive would”.²⁷⁰

However, this would apply against the unlawful users only. If this were not the case, it would damage the inherent nature of online digital databases i.e. extraction and reutilization of each others' data. Online digital databases enhance the value or usefulness of their data by using the content of other databases. This process represents the functions of extraction and reutilization. Hence, the application of the connection between Article 7(5) and Article 7(1) of the Database Directive should focus only on illegal third parties.

²⁶⁹ *Korolev v Russia*, App. No. 25551/05, Admissibility Decision of 1 July 2010. The European Court of Human Rights (First Section).

²⁷⁰ *British Horseracing Board* [2005] 1 CMLR 15 at para 86.

6.9. Concluding remarks

The thesis has evaluated the existing database protection systems in the Europe, the UK and the US, when and where appropriately, so as to suggest an appropriate digital database system for Sri Lanka, with the ultimate objective of attracting investment to the database arena of the country. In so doing, it has examined copyright, patent, contract, unfair competition and misappropriation doctrines and the existing *sui generis* system in the aforementioned jurisdictions. The arguments concerning each and every existing system have been directed towards the *sui generis* protection system. Hence, the proposed system is a collection or bundle of protection mechanisms and rights.

As far as the online digital databases are concerned, the objective of the *sui generis* right protection under the Database Directive does not undermine the national laws in the territory of the EU. This situation is highly effective with the digital databases which are connected to the Internet or a communication system. Therefore, the Database Directive would not leave room for escaping infringement by locating a server outside the Directive's jurisdictions.²⁷¹

As specified in the Database Directive²⁷² and the series of case decisions, “[t]he purpose of the protection by the *sui generis* right provided by the directive is to promote the establishment of storage and processing systems for existing information[/*data*]...”.²⁷³ Hence, providing a protection system with *sui generis*

²⁷¹ J Smith, R Montagnon, ‘Databases hosted outside the UK can infringe rights in UK databases: Football Dataco v Sportradar (C-173/11)’ (Case Comment) (2013) 35/2 EIPR 111 at 112.

²⁷² Council Directive 96/9 EC (OJ L 077/20), recitals 10, 12.

²⁷³ *British Horseracing Board* [2004] ECR I-10415, [2005] 1 CMLR. 15 at para 31, *Veikkaus* [2004] ECR I-10365, [2005] ECDR 2 at para 34, *Svenska Spel* [2004] ECR I-10497, [2005]

right protection promotes the notion of enhancement of value and/or usefulness of data in digital databases identified by the thesis. Computer programs attached to the digital databases built up the storage of data and process the system. The result of this process is value and/or usefulness enhanced data.²⁷⁴

The turning point of the discussion of *sui generis* protection is the requirement of substantial investment.²⁷⁵ The discussion of this point is important as it links to one of the themes of this thesis, that of attracting investors to Sri Lanka. Investment means numerous things to an investor.²⁷⁶ As suggested throughout this thesis, legal protection for digital databases ensures the possibility of return on investment.²⁷⁷ This notion attracts investors to the digital database arena which will be a benefit to Sri Lankan society. Hence, the *sui generis* right protection, with all the rights proposed by this thesis is directly linked to the interests of investors in their investments in digital databases.

To come under the protection of the *sui generis* right, a database must display “a substantial investment in either the obtaining, verification or presentation of the contents”.²⁷⁸ This investment may be qualitative or quantitative or both. This thesis suggests considering both phases of substantial investment as this helps

ECDR 4 at para 24 cited in LA Bygrave, ‘The data difficulty in database protection’ (2013) 35/1 EIPR 25 at 30.

²⁷⁴ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

²⁷⁵ See this Chapter at 6.3. Substantial investment and 6.4. Substantiality of the investment.

²⁷⁶ Black *et al.*, *A Dictionary of Economics* 242; See this Chapter at 6.3. Substantial investment, Chapter 1 at 1.2.1 Using economics as an approach to the concept of ‘property’ and 1.7 Importance of “*sui generis*” right protection and link with investment.

²⁷⁷ See Chapter 1 at 1.6.2. Link between protection and investment.

²⁷⁸ Council Directive 96/9 EC (OJ L 077/20), art. 7(1).

to attract investment because it covers all investments without classifying them into qualitative and quantitative. Furthermore, the thesis identifies the notion of enhancement of value and/or usefulness and this addresses the issue of 'qualitative' substantial investment.

The simultaneous practice of statutory law and case law shows the need for further development of database protection, especially in the event of the *sui generis* right protection. This case law practice does not exclude the verification and presentation of the database content. The involvement of computer programs in digital databases enhances the value and/or usefulness of content data. Hence, the role of the computer program in digital databases still remains as the verification or presentation of the contents in line with the requirement of protection. This raises the significance of identifying the function of computer programs attached to digital databases. This point has been put forward by the discussion of patentability of digital databases.²⁷⁹

This thesis suggests keeping the term 'substantial' open for interpretation as the term "is vague²⁸⁰; it leads to uncertainty²⁸¹ and can be interpreted strictly or

²⁷⁹ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data and Chapter 3.

²⁸⁰ "The substantiality criterion would accordingly be construed as a kind of de minimis rule, which could also reduce to a minimum the often criticized deficit of legal certainty that is associated with the use of the vague legal concept of substantiality." Leistner, 'Legal protection for the database maker: initial experience from a German point of view' at 450; "The threshold requirement of 'substantial investment' for *sui generis* right is likely to give rise to problems of interpretation. 'Courts around the Community will doubtless have difficulty in deciding what is adequate minimum investment to justify this form of protection'. The Directive provides no clues as to the meaning of 'substantial' in terms of investment, whether qualitatively or quantitatively evaluated." N Thakur, 'Database protection in the European Union and the United States: the European Database Directive as an optimum global model?' (2001) 1 IPQ 100 at 128; TM Sanks, 'Database Protection: National And International Attempts To Provide Legal Protection For Database' (1998) 25 FSULR 991 at 998.

²⁸¹ TM Sanks, *ibid.*, at 998; Leistner, *ibid.*, at 450.

broadly”.²⁸² This creates the possibility of interpretation on a case by case basis which depends on the situation and facts of the case. This approach to interpretation helps to develop the database protection law in Sri Lanka. Therefore, the *sui generis* right protection can be identified as a tool which will help to improve database protection systems in the future.

According to Davison’s clarification, protection by copyright or protection that is equivalent to copyright may cause practical problems as they impose compulsory licensing for digital databases. To overcome this problem, the best option available is the *sui generis* right protection working as part of a proposed bundle of rights.

As mentioned above, flexibility of *sui generis* protection may again help to attract the investor due to its ease of use. The *sui generis* right protection is a tool which can be used according to the database owner’s needs and address problems which need to be resolved. The next Chapter will summarise the facts discussed so far with relevant case studies in order to examine the *sui generis* right in the light of the proposed system. The thesis then outlines the proposed protection system and how this will impact Sri Lanka. In so doing, the thesis will investigate the existing stakeholders’ interests and possible reforms to domestic institutions, and whether any new institutions are required.

²⁸² Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 75.

CHAPTER 7

CONCLUSION

7.1. Introduction

This thesis focuses on the examination of existing international and domestic legal protection of digital databases and their relevance in terms of new mechanisms for the protection of digital databases in Sri Lanka.¹ The existing database protection regimes in the EU, the UK and the US consist of copyright,² contract,³ unfair competition and misappropriation⁴ and the *sui generis* right protection.⁵ The examination of the digital nature of databases shows the contribution of installed computer programs in digital databases.⁶ These enhance the value and/or usefulness of data in the database content.⁷ This process needs to be protected in order to protect the investment beneath it. Patents provide strong protection over the investment from the perspective of a

¹ EM Phillips, 'The PhD: assessing quality at different stages of its development' in O Zuber-Skerritt (ed), *Starting Research: Supervision and Training* (Brisbane, Queensland: Tertiary Education Institute, University of Queensland 1992) This study mentions nine definitions of how a PhD can be original. One of them is "[t]rying out something in this country that has previously only been done in other countries". cited in EM Phillips, DS Pugh, *How to get a PhD: A Handbook for students and their supervisors* (3rd edn, Open University Press 2000) 63.

² See Chapter 2.

³ See Chapter 4.

⁴ See Chapter 5.

⁵ See Chapter 6.

⁶ See Chapter 3.

⁷ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

developing country.⁸ The proposed system suggests patent protection as one of the protection mechanisms for computer programs in digital databases due to several reasons.⁹ The thesis examined various protection mechanisms and rights available however the main focus was on the *sui generis* right protection.

This Chapter will set out clearly how the proposed protection system could focus upon the notion of attracting investment through the protection of digital databases. It will do so by first summarising each of the mechanisms proposed by the thesis. The main objective of this summary process is to identify the key areas which address investment in digital databases. This Chapter then outlines the proposed system in order to find out the role of the *sui generis* right protection. This Chapter seeks to flesh out the possibility of a bundle of rights and mechanisms which consists of copyright, patent, contract, unfair competition and misappropriation and *sui generis* right protection. The proposed reforms which come with this bundle of rights and mechanisms will address the different existing stakeholders that can be found at the domestic and international levels. Investors and researchers on both levels are examples of these stakeholders. Case studies for each proposed mechanism outline the proposed system in practical terms. As this aims at reform for a new legal system with regard to digital databases in Sri Lanka, there should be more than amendments, with changes to the existing institutions and new institutions also created. Having addressed these points, the thesis then moves on to an examination of the impact of international law instruments such as WTO and TRIPS.

⁸ AM Imam, 'How does patent protection help developing countries?' (2006) 3 IRIPCL 245 at 254.

⁹ See Chapter 3 generally and especially at 3.2. Origin of the patent protection issue, 3.4. Patents in the proposed system, 3.5. Ways that patents add value to databases and 3.6. Rationale for patent protection of computer programs in digital databases.

7.2. Summary of the role of investment

Protection needs to promote investment¹⁰ which may be financial or non-financial. This thesis describes the connection between protection and investment.¹¹ One of the main arguments of this thesis is that protection of investment in digital databases is a necessity in order to attract investors to Sri Lanka.¹² Sri Lanka, as a developing country, wants to attract foreign and domestic investors in order to speed up its economic development process.¹³ Financial investment is the fuel of economic development. Higher levels of expenditure in research and development indicate the resources devoted to the creation of new and useful knowledge.¹⁴ This knowledge helps in the development process. Digital databases contribute to this new and useful knowledge. Investment in digital databases, therefore, helps in enhancing the value and/or usefulness of data. Investment generally depends on the profits and the protection of a particular market.¹⁵ Protection helps to maximise the

¹⁰ Landes, RA Posner, *The Economic Structure of Intellectual Property Law* 222; Imam, 'How Patent Protection Helps Developing Countries' at 389; Smith, 'Bringing Developing Countries' Intellectual Property Laws to TRIPs Standards' at 238; D Hindman, 'The Effect of Intellectual Property Regimes on Foreign Investments in Developing Economies' (2006) 23 AJICL 467; J Morisset, 'Does A Country Need A Promotion Agency To Attract Foreign Direct Investment? A small analytical model applied to 58 countries' (April 2003) World Bank Policy Research Working Paper 3028 at 4 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=636390> accessed 4 June 2013.

¹¹ See Chapter 1 at 1.6.2. Link between protection and investment.

¹² See Chapter 1 at 1.6. The role of investment in database protection.

¹³ Central Bank of Sri Lanka, 'Recent Economic Developments- Highlights of 2012 and Prospects for 2013' (2013) CBSL (Internet) ch 8 - Financial sector developments and stability at 95 <http://www.cbsl.gov.lk/htm/english/10_pub/p_1.html> accessed 2 January 2013; A Sen, 'Development: which way now?' (1983) 93/372 EJ 745.

¹⁴ CAP Braga *et al.*, 'Intellectual Property Rights and Economic Development' (2000) World Bank Discussion Paper No. 412, at 12 <http://www.wds.worldbank.org/ser/let/WDSContentServer/WDSP/IB/2000/05/13/000094946_00050206013672/Rendered/PDF/multi_page.pdf> accessed 4 June 2013.

¹⁵ Black *et al.*, *A Dictionary of Economics* 362.

profits. Investors intend to make profits and, therefore, they seek protection for their investments.

Data in digital databases can be considered as goods or services and, therefore, they are business-oriented phenomena that can attract investors. Digital creation of data accelerates the creation of knowledge because of the enhanced value that can be brought about through new uses of digitised information. This dovetails with the goals of intellectual property protection because that protection encourages “investments in knowledge creation and business innovation by establishing exclusive rights to use and sell newly developed technologies, goods, and services”.¹⁶ Intellectual property law protects and attracts investment into digital databases. However, there should be an ideal balance between over-protection and under-protection¹⁷ as overly strong protection might scare away investors. This thesis intends to provide a system which protects the investment beneath digital databases rather than provide overly strong protection which damages the attraction of investors.

Digital databases should enhance the value of existing information to make it more useful in an effort to create future knowledge.¹⁸ People may invest in making digital databases and, therefore, enhance value and/or usefulness even if they are not investing financially, for example, in the form of the effort expended by digital database owners. The system proposed by this thesis encourages these people to become involved in making digital databases for

¹⁶ Maskus, ‘Intellectual Property Rights and Economic Development’ at 473-474.

¹⁷ See *inter alia* Derclaye, *The Legal Protection of Databases: A Comparative Analysis* and Griffin, ‘The Copyright Balancing Exercise in the Digital Era: A Proposal for Reform’.

¹⁸ See *inter alia* J Howkins, *The creative economy: How people make money from ideas* (Penguin 2002).

business purposes because the making of new and useful data can lead, in turn, to further new and useful data being created; and, ultimately, it can produce a financial reward for their investments. In “Economic Impact of Database Protection in Developing Countries and Countries in Transition”, Braunstein notes that:

“From the economic perspective, IPRs are intended to protect the investment of entities that put resources into valuable new products, not only as a means to protect the interests of those entities, but perhaps even more important from the social viewpoint, to encourage the production of valuable items from whose use it would be difficult to exclude anyone without such protection”.¹⁹

The social view point mirrors the moral view of the argument behind the investment in intellectual creations while the system proposed by this thesis reflects the economic argument behind the investment in intellectual creations such as digital databases.²⁰ Hence, the emerging importance of investment protection helps to attract future investment into the digital database arena in Sri Lanka.²¹

¹⁹ YM Braunstein, ‘Economic Impact of Database Protection in Developing Countries and Countries in Transition’ (Standing committee on copyright and related rights Seventh Session Geneva May 13 to 17, 2002 WIPO) at 6-7.

²⁰ See *inter alia* R Stallman, ‘Why Software Should Be Free’ (1992) Version of April 24 Home Page Online (Internet) <<http://www.mikropolis.org/wp-content/uploads/2009/08/why-software-should-be-free1.pdf>> accessed 30 May 2013.

²¹ See Chapter 1 at 1.6.2. Link between protection and investment.

7.3. Summary of the suggested mechanisms in each Chapter to find out the contribution to the protection of investment

The object of the copyright Chapter was to examine the relevance of copyright protection to digital databases in order to protect the investment in digital databases and how this helps to attract investors to the Sri Lankan digital database arena.²² Before the Database Directive's definition²³ of 'database' came into effect, 'compilation' was the identifying term for databases. This identification has been changed as a result of the implementation of the EU's Database Directive.²⁴ However, Sri Lankan databases still depend on a definition of 'compilation' under copyright protection.²⁵

Copyright law history shows how this legal concept could have been developed to achieve the aim of protection of investment in creations. In European countries,²⁶ copyright law was a regulatory tool to control the output of printers.²⁷ However, now modern copyright law addresses the issues in digital

²² See Chapter 1 at 1.6.2. Link between protection and investment.

²³ "...'[D]atabase' shall mean a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means". Council Directive 96/9 EC (OJ L 077/20), art. 1 and in the UK, CDPA 1988, s 3A.

²⁴ Council Directive 96/9 EC (OJ L 077/20), art. 3(1), implemented in the UK by the Copyright and Rights in Databases Regulations 1997, SI1997/3032.

²⁵ IP Act of 36/2003/SL, s 7(1)(b).

²⁶ For examples- England, France- PE Geller, 'Copyright History and the Future: What's Culture got to do with it?' (2000) 47 JCS-USA 209 at 216, 217; Greece, Rome- SC Masterson, 'Copyright: History and Development' (1940) 28/5 CLR 620 at 620, 623-624.

²⁷ LR Patterson, *Copyright- In Historical Perspective* (Vanderbilt University Press 1968) 36; R Deazley *et al.*, (eds), *Privilege and Property Essays on the History of Copyright* (Open Book Publishers 2010) 4-5; JGH Griffin, 'An historical solution to the legal challenges posed by peer-to-peer file sharing and digital rights management technology' (2010) 15/3 CLJCM 78 at 80; SC Masterson, 'Copyright: History and Development' (1940) 28/5 CLR 620 at 626.

information formats since the industrial-based economies have been transformed into information-based economies. The importance of data in terms of its value and usefulness is greater in industrial economies. This is more so with the development of digital databases in information based economies. Digital Databases create new value added data depending on existing data.²⁸

Copyright is a right against unauthorised reproduction of creations with the intention of protecting the investment of the authority. Providing protection for investment, as defined by this thesis, attracts more investment.²⁹ Investment in digital databases accords with obtaining and creating data. Copyright protects investment in created data rather than discovered data because creativity is more powerful than mere discovery of work.³⁰ Hence, the mismatch of investment in created data and discovered data creates a lacuna in copyright protection of digital databases. This thesis urges the necessity of a bundle of mechanisms, each of which can be brought in to play where one of the mechanisms has failed to protect the investment.

Investment in a database starts with the compilation process. However, Davison observes that “not every compilation attracts copyright protection”.³¹ In the copyright Chapter, it was suggested that digital databases of non-literary material might be considered a digital compilation in order to attract copyright

²⁸ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

²⁹ See Chapter 1 at 1.6.2. Link between protection and investment.

³⁰ “Discovery means the scientific understanding. Creativity means something which is beyond the scientific understanding. Creativity is sometimes a novel combination of old idea which brings new knowledge. (scientific cast of mind, anxious to avoid romanticism and obscurantism)”. S Mithen (ed), *Creativity in Human Evolution and Prehistory* (Routledge 1998) 22; See Chapter 2 at 2.6. Concluding comments.

³¹ Davison, *The Legal Protection of Databases* 12.

protection.³² This means that digital databases are more likely to be protected compared to non-digital databases. Since this thesis specifically focuses on the digital nature³³ of databases, copyright protection is an applicable argument. Thus, copyright protects investment that lies beneath digital compilations.

Originality or creativity of a work is the starting point for copyright protection.³⁴ Pre-existing works do not have originality and are therefore not copyrightable.³⁵ As mentioned previously, digital databases enhance the value of data depending on existing data which may be part of another database. Therefore, digital databases bring uncertainty due to the originality requirement of copyright, so the protection regime which only relies on copyright may not protect the databases which have been created upon previous works. The investment in these works may then be left without protection. Therefore, a bundle of protection mechanisms under *sui generis* rights which directly addresses the issue of investment might be the best solution.

In order to enhance the value or usefulness of data, computer programs can automatically organise the data.³⁶ Involvement or contributions by the human author are, therefore, at a low level. However, selection and choice of contents

³² See Chapter 2 at 2.3.Tables, Compilations and databases under Copyright Law.

³³ As Oxford dictionary explains that digital means expressed as series of the digits 0 and 1, typically represented by values of a physical quantity such as voltage or magnetic polarization. Computer program is a series of binary digits. Carr, R Arnold, *Computer software:Legal protection in the United Kingdom 2*; Conley *et al*, 'Database Protection in a Digital World' at paras 1-11.

³⁴ In the UK, CDPA 1988, s 1(1)(a); In Sri Lanka, IP Act of 36/2003/SL, s 6(1).

³⁵ CDPA 1988, s 1(1).

³⁶ Fayyad *et al.*, 'From data mining to knowledge discovery in databases' at 39.

of the database would be done by a human author or computer program.³⁷ For example, the data entry process is done by a human author; selecting suitable data from a collection of digital data is done by computer programs. Adding, removing and updating data content is done by a human author. Therefore, finding out the real author in digital databases is problematic and this can make it difficult to grant copyright protection. Nonetheless, a computer program is employed by the human author and for this reason, this thesis suggests considering the human author as the author of digital databases at the time when copyright protection is applicable.³⁸

The Sri Lankan Intellectual Property Act of 36/2003 provides the protection for databases under copyright law. Section 7 appears as:

“Derivative works. -

7. (1) The following shall also be protected as works:—

(b) collections of works and collections of mere data (data bases), whether in machine readable or other form, provided that such collections are original by reason of the selection, co-ordination or arrangement of their contents”.

However, its interpretation clause, Section 5, does not provide a complete definition because databases are considered as derivative works under copyrighted works.³⁹ This thesis suggests setting up a new legal protection system with a comprehensive definition for digital databases in Sri Lanka. This should emphasise the protection of investment in digital databases.

³⁷ Pattison, ‘The European Commission’s Proposal on the Protection of Computer Databases’ at 115; Conley *et al*, ‘Database Protection in a Digital World’ at para 13.

³⁸ 17 USC § 101 (1988). cited in JF Hayden, ‘Copyright Protection of Computer Databases After *Feist*’ (1991-1992) 5 HJLT 215 at 218.

³⁹ IP Act of 36/2003/SL, ss 7 (1) (b) and 5.

As shown by Arnold J in *SAS Institute Inc. v World Programming Limited*,⁴⁰ there are several reasons⁴¹ not to use copyright protection for computer programs. With this contention, Chapter 3 outlined the potential for using patent protection of digital databases.⁴² After examining the basic structure of computer programs, this thesis established the investments made in computer programs. Providing protection to computer programs consequently protects investment in the writing of programs for digital databases. As a result, it attracts investment to the field.⁴³

Digital databases consist of data and computer programs which are used to manipulate data in order to enhance the value or usefulness of the same. Databases can be protected by copyright⁴⁴ while the computer programs can be protected by patents⁴⁵ under this proposed system. This is the main task of the suggested copyright and patent system in this study.

According to Article 1 of the Database Directive,⁴⁶ a database is “a collection of works, data or other materials arranged in a systematic and methodical way and capable of being accessed by electronic or other means”. Computer programs provide the most appropriate and convenient way of accessing data by

⁴⁰ *SAS Institute Inc. v World Programming Limited*, Case No: HC09C03293[2013] EWHC Ch 69.

⁴¹ See Chapter 3 at 3.2. Origin of the patent protection issue.

⁴² See Chapter 3 at 3.2. Origin of the patent protection issue, 3.3. The nature of a computer program and its relevance to the proposed system and 3.5. Ways that patents add value to databases.

⁴³ See Chapter 1 at 1.6.2. Link between protection and investment.

⁴⁴ See Chapter 2.

⁴⁵ See Chapter 3.

⁴⁶ Council Directive 96/9 EC (OJ L 077/20).

organising it in an orderly manner and, in this way, generating value from the data. This process further enhances the usefulness of the data.⁴⁷ Identifying this notion as a means of protecting investments in computer programs is one of the main themes of this research.

The interaction between the computer programs and the data is delivered through the instructions specifically written for the database in a specific language. Copyright does not generally protect such a function or process but patents do.⁴⁸ Without addressing this function, protection of investment in computer programs in digital database is a pointless exercise because digital databases are a combination of data content and computer programs which work together for the purpose of enhancing the value and/or usefulness of data.

A digital database is not just made up of a collection of data or computer programs. It also requires “the means of accessing the information for a particular application”.⁴⁹ Therefore a combination of, or interaction between data and computer programs, creates the digital database structure which enhances the value and/or usefulness of data. Conley *et al.*, also note that:

“A fully developed database is an interrelated set of components capable of generating value from the collection, processing, merger, storage, or dissemination of data”.⁵⁰

Patent protection is a reliable mechanism for profit generation.⁵¹ There are a number of economic benefits possible from patents, such as buying patents,

⁴⁷ Conley *et al.*, ‘Database Protection in a Digital World’ at para 13.

⁴⁸ JP Sumner, ‘The Copyright/Patent Interface: Patent Protection for the Structure of Program Code’ (1989-1990) 30 JJ 107 at 111-112.

⁴⁹ Pattison, ‘The European Commission’s Proposal on the Protection of Computer Databases’ at 115.

⁵⁰ Conley *et al.*, ‘Database Protection in a Digital World’ at para 13.

out-licensing, in-licensing and cross-licensing patents and all these help to attract investment to the field of Sri Lankan digital databases.⁵²

This research argued that if the requirement of a higher level of creativity is strictly applied, no protection would be available under the intellectual property laws for the computer programs which do not pose such a higher creativity. Therefore protecting the investment that produces such computer programs would also be difficult. Therefore the thesis suggested applying utility model for protecting the computer programs in digital databases which do not have a higher creativity.⁵³

Patent protection strongly addresses the needs of developing countries which depend on technology-based economic growth.⁵⁴ Domestic and foreign investments are two main needs of developing countries.⁵⁵ Digital databases form a part of this information technology-based economic growth.⁵⁶ Therefore, providing patent protection for digital databases attracts investors to the development process in developing countries. Patent protection further

⁵¹ WM Landes, RA Posner, *The Economic Structure of Intellectual Property Law* (The Belknap Press of Harvard University Press 2003) at ch 11- The Economics of Patent Law, 294ff.

⁵² See Chapter 3 at 3.11. Concluding comments.

⁵³ See Chapter 3 at 3.9. Utility Patents.

⁵⁴ AM Imam, 'How does patent protection help developing countries?' (2006) 3 IRIPCL 245 at 255.

⁵⁵ A Sen, 'Development: which way now?' (1983) 93/372 EJ 745.

⁵⁶ Conley *et al.*, 'Database Protection in a Digital World' at paras 1-11.

encourages talented domestic investors and inventors to stay within the domestic market.⁵⁷

Article 13 of the Database Directive⁵⁸ provides contractual protection in addition to the *sui generis* right protection. This thesis also respects this legal condition, as the proposed system in this thesis is also a combination of protection rights and mechanisms.⁵⁹ A contract provides strong protection for digital databases⁶⁰ in order to attract investment to the Sri Lankan digital databases. Arguably, contractual protection is practical in online databases where digital databases can be seen frequently. Reichman and Uhler note that:

“Digital telecommunications networks enable publishers to control the uses of information goods directly by contract, without relying on state action to avoid market failure, for the first time since the advent of the Guttenberg printing press”.⁶¹

Information based economies are highly dependent on digital databases which are connected to digital telecommunication networks. Providing strong protection to the digital database in digital telecommunication networks boosts

⁵⁷ Imam, 'How Patent Protection Helps Developing Countries' at 389.

⁵⁸ Council Directive 96/9 EC (OJ L 077/20).

⁵⁹ “Taken together, the ability of publishers to combine technical protection measures with tailor-made contract laws and hybrid intellectual property rights is supposed to stimulate investment in online commerce and to foster overall economic development”. JH Reichman, PF Uhler, 'Database Protection at the Crossroads: Recent Developments and their Impact on Science and Technology' (1999) 14 BTLJ 793 at 799.

⁶⁰ T Riis, 'Economic Impact of the Protection of Unoriginal Databases in Developing Countries and Countries in Transition' (2002) Copenhagen: Copenhagen Business School Center for Law, Economics and Financial Institutions LEFIC Working Paper 2002-03 at 19.

⁶¹ JH Reichman, PF Uhler, *supra* n.59, at 796; WJ Gordon, 'Asymmetric Market Failure and Prisoner's Dilemma in Intellectual Property'(1992) 17 UDLR 853.

the information-based economy.⁶² The result is that this helps to attract investment.⁶³

In this scenario, contracts work as an additional entry barrier to digital databases.⁶⁴ This barrier brings different pricing policies which allow the profits of the database owner to be maximised. This further reduces the unnecessary use of a database. The essence of the Contract Chapter lies in its proposal for a digital meeting of the minds in order to avoid the problems of standard form/adhesion contracts.⁶⁵ Flexible, digital alteration of the terms and conditions will attract more users to databases. Removing barriers to entry and the notion of a digital meeting of the minds⁶⁶ would attract investment to the database field.

In line with contract protection in the proposed system, this thesis suggests making some amendments to the existing legal provisions in Sri Lanka. This will help the smooth functioning of modern businesses which depend on digital databases and, therefore, the online market. For example:

[1] The Lotteries Ordinance No. 8 of 1844 in Sri Lanka⁶⁷ provides that all lotteries should be deemed to be common nuisances and against the

⁶² Reichman, J Franklin, 'Privately Legislated Intellectual Property Rights: Reconciling Freedom of Contract with Public Good Uses of Information' at 877.

⁶³ See Chapter 1 at 1.6.2. Link between protection and investment.

⁶⁴ See Chapter 4 at 4.5. Contract as a gate lock.

⁶⁵ See Chapter 4 at 4.2. Standard Form / Adhesion contracts.

⁶⁶ See Chapter 4 at 4.2.2. Digital meeting of the minds and 4.2.1. Meeting of the minds (*consensus ad idem*).

⁶⁷ Lotteries Ordinance No. 8 of 1844, as amended SI 3 of 1883, SI 6 of 1944, 2 of 1954, 27 of 1958.

law.⁶⁸ This will need to be changed accordingly because nowadays lottery sales and control mostly depend on digital databases.

[2] Section 9 of Civil Procedure Code in Sri Lanka 12 of 1895⁶⁹ states that “subject to the pecuniary or other limitations prescribed by any law, action shall be instituted in the court within the local limits of whose jurisdiction”. Contracts in marine, life and fire insurance are governed by virtue of this Section 9 that has been adopted from English law, and “other types of insurance would be governed by the Roman Dutch law”.⁷⁰ This legal mechanism would be a problem when this insurance is a business conducted through digital databases which are provided via the Internet. In this regard, this thesis suggests setting up a condition which describes the ‘place of action’ where the parties have come to an agreement.⁷¹

[3] Having considered the common law doctrine of ‘consideration’ and “Roman Dutch law, and in most continental systems based on the civil

⁶⁸ Weeramantry, ‘The Law of Contracts-Volume I’ at 336.

⁶⁹ Civil Procedure Code in Sri Lanka 12 of 1895, as amended, (An Ordinance to Consolidate and Amend the Law Relating to the Procedure of the Civil Courts)

“Section 9-

Subject to the pecuniary or other limitations prescribed by any law, action shall be instituted in the court within the local limits of whose jurisdiction

(a) a party defendant resides; or

(b) the land in respect of which the action is brought lies or is situate in whole or in part; or

(c) the cause of action arises; or

(d) the contract sought to be enforced was made.

When it is alleged to be uncertain within the local limits of the jurisdiction of which of two or more courts any immovable property is situate, any one of those courts may, if satisfied that there is ground for the alleged uncertainty, record a statement to that effect, and thereupon proceed to entertain and dispose of any action relating to that property; and its decree in the action shall have the same effect as if the property were situate within the local limits of its jurisdiction:....”.

⁷⁰ Weeramantry, ‘The Law of Contracts-Volume I’ at 380 § 391.

⁷¹ See Chapter 4 at 4.2.4. Definition of a contract.

law the simple requirement of *justa causa*".⁷² Sri Lankan digital databases should consider this consideration issue in line with contract protection.⁷³ This situation is exemplified by contracts for the sale of goods which are governed by the Sale of Goods Ordinance No 11 of 1896⁷⁴ and Bills of Exchange No 25 of 1927⁷⁵ and are both based on English law. Similar to the above, this thesis suggests setting up a condition which describes the 'consideration' that parties have agreed to.

When the digital database connects to the Internet, contract protection is very effective because it can work as an access control tool.⁷⁶ The terms and conditions of the contract in digital databases protect the rights of owners or authors and users of databases. These terms and conditions reflect the capacity, desire and abilities of users and owners or authors. However, these terms and conditions are not adequate protection against misuse by a third party. This is the existing and main argument against this contract mechanism. As this proposed system is a bundle of protection rights and mechanisms, this thesis proposes taking a different step to protect digital databases against unauthorised third party involvement. In this regard, one of the most efficient

⁷² "[The doctrine of] *justa causa*...is a promise that must be serious and deliberate". Weeramantry, 'The Law of Contracts-Volume I' at 219.

⁷³ See Chapter 4 at 4.3.1. Consideration.

⁷⁴ Section 58 (2) provides that "subject to the express provisions of the Ordinance, the rules of English Law will apply to the Sale of Goods except where English law is inconsistent to the express provisions of the Ordinance".

⁷⁵ "Section 27 (1) Valuable consideration for a bill may be constituted by-
(a) any consideration which by the law of England is sufficient to support a simple contract".

⁷⁶ See Chapter 4 at 4.5. Contract as a gate lock.

protection mechanisms is TPM. This system includes cryptography,⁷⁷ watermarking and DRM.⁷⁸

Contractual terms and conditions should be met by compliance with competition law which is another part of this proposed mechanism. Therefore, the terms and conditions in a digital database contract should comply with competition law. Online database contracts, such as standard form/adhesion contracts, can create unequal bargaining power in favour of digital database owners and at the expense of potential users. This dominant power can adversely affect fair competition in digital database markets.⁷⁹ In applying the proposed system to Sri Lanka, non-consistencies with the existing commercial law should be avoided.

In order to attract investment in digital databases, contract protection should be used alongside the concept of misappropriation and the *sui generis* rights protection. Therefore various types of legal protection mechanisms can be utilised for the purpose of safeguarding the investment in digital databases.⁸⁰ Only contract protection provides the market power to the database owner or

⁷⁷ “Cryptographic technologies are nowadays widely recognised as the essential tool for security and trust in electronic communication. (...) Encryption of data is very often the only effective and cost-efficient way of meeting these requirements.[Ensuring security and trust in electronic communication - Towards a European Framework for Digital Signatures and Encryption, 10 October 1991, COM(91) 503]”. cited in B Koops, *The Crypto Controversy: A Key Conflict in the Information Society* (PhD Thesis/Tilburg University 1998, Kluwer Law International 1999) at 57.

⁷⁸ Digital Millennium Copyright Act (DMCA), Public Law 105-304, October 28th 1998, 112 Stat. 2860; Copyright Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society (OJ L167, 2001-06-22, P0010, OJ L6, 2002-01-10, P0070); Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 194.

⁷⁹ *Astrazeneca AB v European Commission* [2013] 4 CMLR 7 at 237.

⁸⁰ Council Directive 96/9 EC (OJ L 077/20), art. 13 confirms the simultaneous function of contractual protection and the *sui generis* right protection.

author, but this could be abused by the owner. Abuse of market power reduces competition which subsequently affects investment in digital databases.

The practice of abuse of market power and price fixing between database competitors adversely affects investment in digital databases. Unfair competition laws and misappropriation help to prevent the abuse of market power⁸¹ and price-fixing between database competitors. Therefore, this thesis adds unfair competition laws and misappropriation to its proposed bundle of protection rights and mechanisms. In relation to the US experience, Tessensohn observes that:

“This is a problem for the companies in the multibillion dollar database industry that seek to protect their sizeable financial investment in compiling and marketing these databases. They complain that these legal setbacks have adversely affected their stock prices and decisions to invest in production of vulnerable databases. The multibillion dollar question, then, is how to protect computer databases in the United States. It is possible that contract and state unfair competition law provide some degree of protection”.⁸²

In relation to the EU experience, Article 13 of the Database Directive provides for the possibility of using unfair competition and contract laws in addition to the *sui generis* right protection introduced by the Database Directive.⁸³ This confirms the potential of a bundle of protection mechanisms as suggested by this thesis.

⁸¹ *British Airways plc v Commission of the European Communities* [2007] 4 CMLR 22; *Magill TV Guide Ltd v Independent Television Publications Ltd* (IV/31.851) [1989] 4 CMLR 757 (CEC); WM Landes, RA Posner, 'Market Power in Antitrust Cases'(March 1981) 94/5 HLR 937 at 937, 939.

⁸² Tessensohn, 'The Devil's in the Details' at 453.

⁸³ Council Directive 96/9 EC (OJ L 077/20), art. 13.

Misuse or abuse of market power resulting from the higher level of bargaining power of contract protection leads to an unbalanced situation between owners and users of digital databases. In these database contracts, there is always a mismatch between database owners' intentions and needs and users' needs. Users cannot properly convey their needs to the owners through the contract. This reduces the attraction for investors because the possibility of conflicts is high and the costs associated with these are also high. Unfair competition laws along with the concept of misappropriation avoid this situation and maintain the balance of the market, thus attracting investment to the field.⁸⁴

Economic torts, such as passing off and reverse passing off, help to attract investment.⁸⁵ Passing off can be identified as a possible protection against violations of digital databases,⁸⁶ while reverse passing off provides a legal action which can lead to the crediting of the origin of the information.⁸⁷ Both of these concepts help to improve protection as they engage with the inherent practice of digital databases that depend on other databases and enhance the value of information that depends on existing information which originates from other databases. Reverse passing off confirms the credibility of enhancing the value of data which comes from the existing data in other digital databases.

⁸⁴ "Competition is to be conducive to productive efficiency".
J Vickers, 'Competition economics and policy' (2003) 24/3 ECLR 95 at 96
<http://www.offt.gov.uk/shared_offt/speeches/spe0702.pdf> accessed 13 March 2013.

⁸⁵ See Chapter 5 at 5.3. Passing off and 5.3.1. Reverse passing off doctrine.

⁸⁶ H Carty, *An Analysis of the Economic Torts* (2nd edn, OUP 2010) 1; J Davis, 'Why The United Kingdom Should Have a Law Against Misappropriation' (November 2010) 69/3 CLJ 561 at 561; See Chapter 5 at 5.3. Passing off.

⁸⁷ See Chapter 5 at 5.3.1. Reverse passing off doctrine.

Parasitism⁸⁸ examines the practices of third parties who misuse the data in digital databases, and protects the investment of the database owner. Parasitism is a practice that originated under French competition law, which recognises the principle of freedom to copy only to the extent that comply with the principles of copyright law. When freedom to copy is coupled with a controlling mechanism, such as copyright, unfair competition and misappropriation, such a system would enable a possible deal between sellers and customers. Data customers can use the data to improve their own databases since it is not against the principles of copyright and unfair competition and misappropriation. Such a system would develop the creativity of databases as the enhancement of the value and/or usefulness of the data process depends on the data which derive from other databases. Freedom to copy which is subject to legal controls, provides more data for the process of enhancement of value and/or usefulness of data. More creative digital databases increase the popularity and “reputation”⁸⁹ of the market⁹⁰ and this, in turn, attracts more users. A higher number of users brings profits, and this attracts future investors.⁹¹

In fact, freedom to copy within a regulatory framework of copyright contributes to increase the popularity and reputation of digital databases. By contrast, the US legal regime prevents free-riding. However, the disadvantages of this are

⁸⁸ See Chapter 5 at 5.4. The theory of parasitism and its applicability to the proposed Sri Lankan protection system.

⁸⁹ Landes, RA Posner, ‘The Economics of Trademark Law’ at 272.

⁹⁰ DS Karjala, ‘Misappropriation as a Third Intellectual Property Paradigm’ (1994) 94 CLR 2594 at 2597.

⁹¹ Landes, RA Posner, *supra* n.89, at 272.

curtailed by the healthy competition of the market which is the fruit of competition law.

The gist of the arguments in each and every Chapter so far discussed focus on the 'protection of investment'.⁹² This investment may be in financial or non-financial forms. The *sui generis* right protection confirms the availability of other possible protection mechanisms,⁹³ whose goal it is to protect investment in databases. Therefore, this thesis depends on a bundle of protection rights/mechanisms through the *sui generis* right protection system.

In the previous Chapter, it was observed that the *sui generis* right protection depends on the requirement of substantial investment.⁹⁴ This protects every phase of investment, human or financial, in digital databases.⁹⁵ Each phase of investment can be found in the digital database as it consists of data content and a computer program. A digital database is a creation and a product of human labour and of the computer program installed. Therefore, the investment exists through both human and computer program contributions. These contributions can be found in the process of obtaining, verification or presentation of the contents of digital databases. Substantial investment in obtaining, verification or presentation must be provided in order to attract the *sui generis* right protection as outlined in Article 7(1) of the Database Directive. However, there have been a number of cases that have ruled that: "database contents which consist of substantial investment in the process of enhancing of

⁹² See Chapter 1 at 1.6.2. Link between protection and investment.

⁹³ Council Directive 96/9 EC (OJ L 077/20), art. 13.

⁹⁴ See Chapter 6 at 6.3. Substantial investment and 6.4. Substantiality of the investment.

⁹⁵ *British Horseracing Board Limited and Others v William Hill Organisation Limited* [2005] 1 CMLR 15 at paras 70 and 71.

value/usefulness of data rather than in the process of obtaining are excluded from *sui generis* protection”.⁹⁶ Having said this, the role of the computer program in a digital database is to enhance the value of data and it can still be considered as valuable for its functions of verification and/or presentation. This identifies the separate function of computer programs as part of digital databases.⁹⁷ Investment in those computer functions should be dealt with under patent law because patents are designed to protect functionality. In contrast, copyright protects the expression rather than the function.

Patents provide a wider range of benefits for developing countries.⁹⁸ For example, patents protect inventors and, therefore, attract future inventors and investment. Therefore, the necessity of patent protection of computer programs confirms the requirement for different protection mechanisms in one bundle. *Sui generis* right and patent protection single out the significance of protection of investment.

According to Article 7(1) of the Database Directive, an author of a database has the right to prevent extraction or reutilization of the whole or part of his database content. However, this is subject to the lawful user’s rights found in Article 8(1) of the Database Directive.⁹⁹ The meaning of lawful user is decided in the terms

⁹⁶ *British Horseracing Board Ltd and Others v William Hill Organization Ltd*, ECJ case C-203/02, 9 Nov. 2004 (from England); *Fixtures Marketing Ltd v Oy Veikkaus Ab*, ECJ case C-45/02, 09 Nov. 2004 (from Finland); *Fixtures Marketing Ltd v Organismos prognostikon agonon podosfairou AE*, ECJ case C-444/02, 09 Nov. 2004 (from Greece); and *Fixtures Marketing Ltd. V Svenska Spel AB*, ECJ case C-338/02, 09 Nov. 2004 (from Sweden). cited in Herr, ‘Is the *Sui Generis* Right a Failed Experiment?’ at 11.

⁹⁷ See Chapter 3.

⁹⁸ AM Imam, ‘How does patent protection help developing countries?’ (2006) 3 IRIPCL 245 at 254; See Chapter 3 at 3.3. The nature of a computer program and its relevance to the proposed system and 3.5. Ways that patents add value to databases.

⁹⁹ Council Directive 96/9 EC (OJ L 077/20).

and conditions of contract between the author or owner and users. Therefore, the *sui generis* right protection and contract protection are interdependent and need to be incorporated into the same bundle of protection mechanisms.

7.4. Outline of the proposed system

As mentioned in this thesis, this proposed system is made up of a bundle of rights and mechanisms. Copyright protects the data in digital database content while patents provide protection to computer programs which enhance the value and/or usefulness of data in the database. The role of the computer program in digital databases should be considered as a function and/or mechanism. The contract protection system should be recruited as an access control tool.¹⁰⁰ The terms and conditions of the contract are used as the mechanism which minimise conflicts between owners and users and for improving the smooth functioning of the database field. Striking a balance between the rights of database owners and users is the main feature of contract protection in digital databases. This balance should address the reduction of unfair competition practices. This leads to an acceptable level of competition in the market place and to the reduction of unfair competition practices. The purpose of this behaviour is to accelerate the involvement in digital databases and attract investment. In so doing, unfair competition and misappropriation laws will further fill the gaps in this proposed mechanism. Finally, *sui generis* database rights will bind all the above mentioned protection systems together.

¹⁰⁰ See Chapter 4 at 4.5. Contract as a gate lock.

A claim for protection under this proposed system needs to meet some basic requirements. For example, in order to claim the *sui generis* right protection, an applicant needs to have proved, qualitatively and/or quantitatively, a substantial investment in either the obtaining, verification or presentation of the contents.¹⁰¹ To attract copyright protection, a digital database creator has to prove some level of originality or intellectual creativity¹⁰² in his work.¹⁰³ It is a requirement to prove the functions which enhance the value and/or usefulness of data by the involvement of a computer program in order to attract patentability.¹⁰⁴ This computer program should be designed for the purpose of enhancing the value of data in the database. This should also be proven by the author in order to attract patent protection to the computer program, namely, the contribution of the computer program in the process of data mining and KDD. These enhance the value and/or usefulness of data in digital databases. Anybody wishing to claim unfair competition or misappropriation protection under this proposal should be able to prove that some effort and cost has been expended in the collection or generation of the data.

¹⁰¹ Council Directive 96/9 EC (OJ L 077/20), art. 7(1).

¹⁰² Davison, *The Legal Protection of Databases* 13.

¹⁰³ *British Horseracing Board Ltd and others v William Hill Organisation Ltd* (ECJ) [2009] Bus LR 932 at 941-942; *Infopaq International A/S v Danske Dagblades Forening* (ECJ) (Fourth Chamber)[2012] Bus LR 102.

¹⁰⁴ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data and Chapter 3.

7.4.1. Brief identification of the way in which Sri Lanka could benefit if it adopted UK or US law

The section identifies the ways in which Sri Lanka could benefit if it were to adopt UK and US law. These benefits can be identified from the statutory law or case law. As Sri Lanka was a colony of the United Kingdom, it has a long standing tradition of following case law from the UK.¹⁰⁵ This provides a basis for following UK case law. As far as the copyright protection is concerned, a compilation of data attracts copyright protection in both legal systems.¹⁰⁶ Since database protection is new to Sri Lankan legal system it does not have case law on this point. Consequently, following the precedents of UK case law relating to the different type of compilation of data in UK legal system such as lists of railway stations,¹⁰⁷ lists of share prices,¹⁰⁸ and lists of football coupons¹⁰⁹ would bring guidelines and certainty to Sri Lankan legal system.

The copyright statute in the UK, the CDPA 1988, defines a database as “a collection of independent works, data or other materials which are arranged in a systematic or a methodical way”.¹¹⁰ The UK statute provides a more precise definition compared to Sri Lankan law. The IP Act of 36/2003/SL defines the databases as “collections of works and collections of mere data (data bases),

¹⁰⁵ LJM Cooray, ‘Common Law in England and Sri Lanka’ (1975) 24/3 ICLQ 553 (Internet) <<http://journals.cambridge.org/action/displayFulltext?type=1&fid=1501444&jid=ILQ&volumeId=24&issueId=03&aid=1501440>> accessed 14 March 2011.

¹⁰⁶ In Sri Lanka, IP Act of 36/2003/SL, s 7 (1) (b); In the UK, CDPA 1988, s 3 (1) (a).

¹⁰⁷ *Blacklock v Pearson* (1915) 2Ch 376.

¹⁰⁸ *Exchange Telegraph Co Ltd v Gregory & Co* (1896) 1QB 147.

¹⁰⁹ *Ladbroke (Football) Ltd v William Hill (Football) Ltd* (1964) 1 WLR 273.

¹¹⁰ CDPA 1988, s 3A.

whether in machine readable or other form, provided that such collections are original by reason of the selection, co-ordination or arrangement of their contents”.¹¹¹ Further, the UK interpretation assists in understanding the notion introduced by the thesis i.e. enhancing the value and/or usefulness of data in digital databases, as the CDPA 1988 provides a wider interpretation through the words of ‘a systematic or a methodical way’.

Since the introduction of the Statute of Anne,¹¹² the UK introduced a long established norm that the first owner of the copyright is the author and for a fixed term. The term “owner” provides broader scope to protect the investment in digital databases. The owner has a legal right to exclusive use of property¹¹³ which the author might not have (i.e. if not the owner). An author provides only the copyrightable expressions, and he is only the first owner of the copyrightable work unless he is being employed where he is not even that, i.e. not an owner.

As discussed in Chapter 2,¹¹⁴ the UK Copyright (Computer Programs) Regulations 1992 (CCPR)¹¹⁵ provides clarification on the difference between copyright and protection of investment in terms of computer programs. The loopholes in computer program protection under the CDPA 1988 were rectified by this law.

¹¹¹ IP Act of 36/2003/SL, s 7 (1) (b).

¹¹² Statute of Anne (An Act for the Encouragement of Learning, by vesting the Copies of printed Books in the Authors or Purchasers of such Copies, during the Times therein mentioned (1709) 8 Anne, c19).

¹¹³ Black *et al.*, *A Dictionary of Economics* 331.

¹¹⁴ See Chapter 2 at 2.2. The history of copyright.

¹¹⁵ Copyright (Computer Programs) Regulations 1992, SI1992/3233.

The CDPA 1988, Section 9(3) provides that the author of a computer-generated work is the person who makes the necessary arrangements for the creation of the work. This is consistent with the thesis' suggestion that the author of digital database is the person who takes necessary steps to set up the arrangement of a digital database.

The CDPA 1988 provides a provision concerning the interpretation of literary works which includes computer programs.¹¹⁶ In terms of Sri Lankan IP Act of 36/2003/SL, under Section 6(1) computer programs are considered as literary works, but no definition for the term literary works is given therein. Nevertheless, UK case law which has examined the object code of the computer program helps to find a different view on the protection of copyright on computer program. In the High Court of Australia at Canberra, it has been held that electronic formation of object code is not a subject matter for copyright law.¹¹⁷ This practice has been further confirmed by *SAS Institute Inc. v. World Programming Limited*,¹¹⁸ where Arnold J referred interpretation of 'Programming languages,' 'Functionality' or 'Interfaces' which are not addressed by the copyright protection.¹¹⁹ This emphasises the need for discussion of patent protection for computer programs.

Where patent protection is concerned, Section 1(2) of the UK Patents Act 1977 states that 'a program for computers' is excluded from patentable subject

¹¹⁶ CDPA 1988, s 3(1)(a).

¹¹⁷ *Computer Edge Pty. Ltd. v Apple Computer Inc.* [1986] FSR 537.

¹¹⁸ *SAS Institute Inc. v World Programming Limited* [2013] EWHC Ch 69.

¹¹⁹ *SAS Institute Inc. v World Programming Limited* [2013] EWHC Ch 69 at para 15.

matter.¹²⁰ Further, this Section states that computer programs are not patentable “as such”. This term opens an avenue for a clarification on patentability of computer programs. The European Patent Convention 2000 (EPC 2000)¹²¹ has a similar position.¹²² Even though in US law, computer programs are not explicitly mentioned, this situation has been modified by the case law in view of ‘patent eligible subject matter’. This thesis suggests amendments for Sri Lankan law having considered the points stated above.

The US Constitutional notion of “promotion of the progress of science and the useful arts”¹²³ provides possibilities for considering patent protection of computer programs. Further, new and useful machines or processes are patentable under the US law.¹²⁴ The thesis respects the US long running tradition of considering practical utility of patentable inventions.¹²⁵ However, the thesis deviates from the UK position in this regard as the UK has significantly disregarded practical utility.¹²⁶ If Sri Lankan law follows the US notions, it would be more beneficial in promoting the possibility of patentability of computer program in digital databases.

¹²⁰ *Merrill Lynch’s Application* [1988] RPC 1, [1989] RPC 561; *Gale’s Application* [1991] RPC 305.

¹²¹ Convention on the Grant of European Patents (European Patent Convention) of 5 October 1973 as revised by the Act revising in 17 December 1991 and in 29 November 2000 <<http://www.epo.org/index.html>> accessed 19 June 2013.

¹²² EPC 2000, art. 52(2).

¹²³ The Constitution of the United States, Article 1, Section 8.

¹²⁴ *In re Alappat* 33 F.3d 1526, 31 USPQ 2d (BNA) 1545 (Fed. Cir. 1994); *Bernard L Bilski and Rand A Warsaw v David J Kappos* 130 SCt 3218 (2010).

¹²⁵ *Fujikawa v Wattanasin* 93 F.3d 1559 (Fed. Cir. 1996) at 1563; *Brenner v Manson*, 383 US 519 (1966) at 529.

¹²⁶ *Eli Lilly & Co v Human Genome Sciences Inc.*[2012] RPC 6.

This thesis identified and addressed the deficiencies of patent protection and suggested proposals accordingly.¹²⁷ One of them was the UK Patent County Court system which provides less expensive forum for setting up a patent protection. This system can be employed in Sri Lanka as a part of patent protection on computer program in digital databases.

As far as unfair competition and misappropriation is concerned, this thesis identified precise points which can be identified in the US legal system.¹²⁸ In the US, misappropriation is a broad, anti-copying, common law doctrine which prevents the illegal imitation or duplication works at another's expenditure.¹²⁹ This tort brings out the difference between the protections offered copyright and misappropriation, in that certain information may fall short of copyright subsistence and infringement rules, yet still be valuable time sensitive data.¹³⁰ Copyright does not always protect the commercial value of certain news events, i.e. sports scores, whereas misappropriation does. However, in some cases misappropriation might not cover some news events, i.e. scores as in *National Basketball Association v Motorola, Inc.*¹³¹ Database protection experience in the US demonstrates the availability of misappropriation, technological protection mechanisms and anti-circumvention provisions.¹³² Thus, the thesis respects this

¹²⁷ See Chapter 3 at 3.11. Concluding comments.

¹²⁸ See Chapter 5 at 5.6. Lessons on the protection of databases from unfair competition in the United States.

¹²⁹ JC Ginsburg, 'Copyright, Common Law, and Sui Generis Protection of Databases in the United States and Abroad' (1997-1998) 66 UCLR 151 at 157; *International News Service v Associated Press* 248 US 215 (1918).

¹³⁰ See Chapter 5 at 5.6. *supra* n.128.

¹³¹ *National Basketball Association v Motorola, Inc.* 105 F 3d 841 (2nd Cir, 1997).

¹³² Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 3.

approach as it proposes a system consisting of a bundle of rights and mechanisms.

7.5. The *sui generis* right in the light of the proposed system

This thesis has evaluated the existing database protection mechanisms in the EU, the UK and the US in order to find the link between protection and investment. The primary objective of this evaluation was to examine how these mechanisms protect the investment in digital databases. The thesis examined copyright, contract, unfair competition and misappropriation and the *sui generis* right protection in those jurisdictions, and proposed patent protection for the computer programs in digital databases. The basic reason for this is that patents protect the functions of computer programs. All of these mechanisms have focused on a *sui generis* right protection system and this is the framework for the proposed system.

The *sui generis* right prevents extraction and/or re-utilization of whole or substantial parts of the database content.¹³³ All these rights are subject to lawful users' rights.¹³⁴ The *sui generis* right protection mainly addresses the requirement of substantial investment.¹³⁵ Thus, the *sui generis* right system mainly protects the investment in digital databases. Therefore, focusing the proposed mechanism on the *sui generis* right protection is beneficial because one of the themes of this thesis is attracting investors to the Sri Lankan digital

¹³³ Council Directive 96/9 EC (OJ L 077/20), art. 7(1).

¹³⁴ Council Directive 96/9 EC (OJ L 077/20), arts. 8, 9.

¹³⁵ See Chapter 6 at 6.3. Substantial investment.

databases arena. Investment means many things to an investor¹³⁶ and it should be protected regardless of its type, i.e. human or financial.¹³⁷ Investment in digital databases may be quantitative and/or qualitative.¹³⁸ This can be found from the data obtainment, verification or presentation in digital databases.¹³⁹ Therefore, the databases must demonstrate “a substantial investment in either the obtaining, verification or presentation of the contents” in order to deserve the *sui generis* right protection.¹⁴⁰ Herr observes that “[i]n a series of four cases involving horseracing and football fixture lists, the European Court of Justice (ECJ) has ruled that database contents, which evidence a substantial investment in the creation of data rather than in its obtainment, are excluded from protection”.¹⁴¹

However, as noted above, the computer programs in digital databases enhance the value and/or usefulness of content data by the techniques of verification and presentation.¹⁴² Data mining and KDD demonstrate these verification and presentation techniques. Overall, the KDD process consists of “acquiring or

¹³⁶ Black *et al.*, *A Dictionary of Economics* 242.

¹³⁷ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 145.

¹³⁸ Council Directive 96/9 EC (OJ L 077/20), art. 7(1); *Fixtures Marketing Ltd v Svenska Spel Ab* (Case C-338/02)[2005] ECDR 4 at para 28; A Masson, ‘Creation of database or creation of data: crucial choices in the matter of database protection’ (2006) EIPR 261 at 264.

¹³⁹ See Chapter 6 at 6.6. Substantial investment in obtaining, verification and presentation.

¹⁴⁰ Council Directive 96/9 EC (OJ L 077/20), art. 7(1).

¹⁴¹ *British Horseracing Board Ltd and Others v. William Hill Organization Ltd*, ECJ case C-203/02, 9 Nov. 2004 (from England); *Fixtures Marketing Ltd v. Oy Veikkaus Ab*, ECJ case C-45/02, 09 Nov. 2004 (from Finland); *Fixtures Marketing Ltd v. Organismos prognostikon agonon podosfairou AE*, ECJ case C-444/02, 09 Nov. 2004 (from Greece); and *Fixtures Marketing Ltd. v. Svenska Spel AB*, ECJ case C-338/02, 09 Nov. 2004 (from Sweden). cited in Herr, ‘Is the *Sui Generis* Right a Failed Experiment?’ at 11.

¹⁴² Goebel *et al.*, ‘A Survey of Data Mining and Knowledge Discovery Software Tools’ at 21; Fayyad *et al.*, ‘From data mining to knowledge discovery in databases’ at 39.

selecting a target data set, integrating and checking the data set, data cleaning, pre-processing, and transformation, result interpretation and visualization, result testing and verification”.¹⁴³ It is important to identify the contribution of computer programs in digital databases because they are integral to the creation of new, enhanced, valuable and useful data. This identification helps to confirm the requirement of *sui generis* right protection.

The term substantial under the *sui generis* right protection “is ‘vague’;¹⁴⁴ it leads to uncertainty¹⁴⁵ and can be interpreted strictly or broadly”.¹⁴⁶ Therefore, this thesis suggests keeping this term open for interpretation on a case by case basis. The term ‘substantial’ would be decided by the situation and facts of the case. The courts can then develop the database law by providing different interpretations according to the situation and facts of the case. Therefore, keeping the term open for interpretation facilitates the development of database protection law in Sri Lanka.

Under the proposed system, *sui generis* rights come as a bundle of rights and protection mechanisms. Connecting with other rights or other protection mechanisms depends on the nature of the *sui generis* right. Derclaye suggests that:

¹⁴³ Goebel *et al.*, *ibid.*, at 21; Fayyad *et al.*, *ibid.*, at 39; Piatetsky-Shapiro *et al.*, ‘An Overview of Issues in Developing Industrial Data Mining and Knowledge Discovery Applications’ at 90; See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

¹⁴⁴ Leistner, ‘Legal protection for the database maker: initial experience from a German point of view’ at 450; N Thakur, ‘Database protection in the European Union and the United States: the European Database Directive as an optimum global model?’ (2001) 1 IPQ 100 at 128; TM Sanks, ‘Database Protection: National and International Attempts to Provide Legal Protection for Databases’ (1998) 25 FSULR 991 at 998.

¹⁴⁵ Leistner, *ibid.*, at 450; N Thakur, *ibid.*, at 128; TM Sanks, *ibid.*, at 998.

¹⁴⁶ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 75.

“[I]f *sui generis* is an intellectual property right, then the rights of database producers must be adequately balanced with the rights of the users in the public interest. Further it determines its relations to other laws such as unfair competition and contract laws”.¹⁴⁷

This creates a further relationship between copyright and other neighbouring rights and contract law. All of these determinations depend on the prediction of the *sui generis* right is an intellectual property right.

The *sui generis* system is clearly separated from an action in unfair competition. However, it can be identified that “the *sui generis* right codifies the law of unfair competition on parasitism”.¹⁴⁸ Therefore, “it transforms this part of unfair competition law into an intellectual property right”.¹⁴⁹ This shows that *sui generis* right and unfair competition come under one umbrella where this combination can be identified as a bundle of protection rights and mechanisms.

Davison observes that:

“[c]onsequently, any discussion of legal protection of databases needs to consider the issue of access and the circumstances, if any, in which it is to be guaranteed. If the information contained within a database is given copyright protection or protection that is equivalent to copyright, it becomes difficult to impose compulsory licensing because of the Berne Convention. However, if the information itself is not protected by copyright, and the investment in the sweat of the brow in collecting it is protected by a *sui generis* right, that *sui generis* right can be subject to compulsory licensing provisions. This is because it is a new right that can be crafted as its creators see fit”.¹⁵⁰

¹⁴⁷ Derclaye, *ibid.*, 51.

¹⁴⁸ Derclaye, *ibid.*, 52, 53 and at same page footnote 51.

¹⁴⁹ Derclaye, *ibid.*, 53.

¹⁵⁰ Davison, *The Legal Protection of Databases* 36.

Therefore, the flexibility of *sui generis* right protection helps to attract the investors because of the ease with which it can be used in the future. This flexibility can be crafted as the interest of protection of investment in digital databases.

7.6. Relationship between copyright, patent, contract, unfair competition/misappropriation and *sui generis* rights

It is necessary to understand the relationship between these concepts as this proposed system is a bundle of rights/mechanisms. The *sui generis* right system is the core of this proposed mechanism where copyright will play one of the main roles. In line with this proposed system, the content of the digital database attracts copyright protection while computer programs, which manipulate the data in a digital database, are protected by patent law. Contract and unfair competition law generally protect the database as mechanisms of the proposed system.

A digital database does not exist without data or without computer programs. In a digital database, these two components are interdependent. Therefore, there should be a relationship between the mechanisms which protect the content of the database and the computer program which manipulates the data in the digital database in order to enhance the value of the data.

The conventional meaning of protection of computer programs is different from the suggestions of this proposed system, as this meaning is held within copyright law. As a whole, the digital database and content of it are to be protected by copyright law according to this proposed system. However, the

functions of computer programs, i.e. the enhancement of value and/or usefulness of data in digital databases are to be protected in order to protect the investment beneath it. In so doing, copyright protection for computer programs is limited because copyright does not protect the functions.¹⁵¹ Therefore, this thesis rejects copyright protection on the computer program and suggests patent protection for the computer program in digital databases. There are two reasons behind this suggestion of patent protection. The first is that it addresses the issue of functions and mechanisms.¹⁵² The second is that the patent provides strong protection which attracts investors and researchers to developing countries like Sri Lanka.¹⁵³ However, this proposed suggestion is only applicable to computer programs that manipulate data in digital databases. It does not apply to all computer programs.

Copyright basically protects the form of expression of a creation.¹⁵⁴ Patents are granted for inventions.¹⁵⁵ The digital database is, at its most generic, a creation which is supported by the functions of a computer program. The final production of a digital database, i.e. the enhancement of value and/or usefulness of data, comes through the result of manipulation of data by a computer program which

¹⁵¹ Directive 2009/24/EC of the European Parliament and of the Council of 23 April 2009 on the legal protection of computer programs (Software Directive 2009/24 EC) (OJ L 111/16), art. 1 (2); *SAS Institute Inc. v World Programming Ltd* [2013] EWHC Ch 69 (per Arnold J).

¹⁵² Patents Act 1977/UK, ss 1 (1)(c), 4(1); EPC 2000, art. 57; *Research In Motion UK Ltd. v Inpro Licensing SARL* [2006] EWHC 70 (Pat) at para 187 (per Pumfrey J); JP Sumner, 'The Copyright/Patent Interface: Patent Protection for the Structure of Program Code' (1989-1990) 30 JJ 107 at 111-112; See Chapter 3 at 3.6.3. Industrial applicability.

¹⁵³ AM Imam, 'How does patent protection help developing countries?' (2006) 3 IRIPCL 245 at 254; See Chapter 3 at 3.2. Origin of the patent protection issue.

¹⁵⁴ *Feist Publications Inc. v Rural Telephone Service Co.* 499 US 340 (1991) at 349-350; See this Chapter at 7.3. Summary of the suggested mechanisms in each Chapter to find out the contribution to the protection of investment.

¹⁵⁵ Patents Act 1977/UK, s 1.

is specifically designed for that purpose and for that particular database. The manipulation of data in a digital database is a function and/or a mechanism which can be protected by a patent. Therefore, this proposed system suggests that the digital database is a created invention which subsists within data and computer programs. In other words, digital databases are creations which can be protected by copyright and databases are creations which make new data thanks to the functions of computer programs which can be protected by patents.

The protection provided by the contracts for the digital databases controls the mutual transfer of the rights between a database owner and a user. Both such parties to a digital database contracts use the databases to fulfil their economic, social and political interests. Benefits and profits of investment are the economic interests of databases owners. The general public, as the users of the databases utilize them to fulfil their social and political interests. Thus, protection given by the contracts with its controls over the mutual transfer of rights “attempts to bridge the gaps between... private interest and public interest”.¹⁵⁶

As part of the proposed digital database protection mechanism, a contract binds the other proposed mechanisms of copyright, patent, unfair competition and *sui generis* rights together. All of these mechanisms reflect the basis of agreement which is the basis of a contract. Copyright is a contract between a copyright owner and a copyright user. A patent is also a contract between the patent owner and the state. Unfair competition and competition law are based on a

¹⁵⁶ M Rosenfeld, 'Contract and Justice: The Relation Between Classical Contract Law and Social Contract Theory' (1984-1985) 70 ILR 769 at 872.

contract which agrees to respect each other's rights and to maintain fair competition.

Sui generis right has been described as “one of the least balanced and most potentially anti-competitive intellectual property rights ever created”.¹⁵⁷ Colston observes that:

“Recital 6 makes clear that the *sui generis* right is a response to the lack of harmonised unfair competition principles within the European Union and underlines the purpose of the right. This raises the question whether a form of unfair competition remedy would have been a solution better adapted to the nature of the right's subject-matter [i.e. *sui generis* right protection]”.¹⁵⁸

These findings show the link between *sui generis* right and unfair competition and competition laws.

Under the proposed copyright mechanism, a database attracts exclusive rights to the owner of the digital database, who enjoys various rights in relation to the copyrighted content, such as reproducing them or communicating them to the public. Without proper permission from a database owner, reproducing or communicating the data to the public is an infringement of the owner's copyright. There is one exception to this rule, “fair use” or “fair dealing” of data. Unfair competition protects the fair use of things. In line with this interpretation, copyright and unfair competition are linked to each other.¹⁵⁹

The proposed system suggests patent protection for computer programs which add value to the digital databases and it does not intend to provide such

¹⁵⁷ Derclaye, *The Legal Protection of Databases: A Comparative Analysis* 43; J Reichman, P Samuelson, 'Intellectual Property Rights in Data?' (1997) 50 VLR 51 at 81.

¹⁵⁸ C Colston, 'Sui Generis Database Right: Ripe for Review?' (2001) 3 JILT (Internet) <http://www2.warwick.ac.uk/fac/soc/law/elj/jilt/2001_3/colston/> accessed 20 March 2013.

¹⁵⁹ See Chapter 5 at 5.2. Origin of unfair competition law.

protection for all the types of computer programs. It is then important to find out the usability of the relationship between patents and unfair competition law. When these computer programs are used by third parties then the utilization of unfair competition law may be questionable. In this situation, “no action can be taken against third parties who use or sell in good faith the software which is marketed illegally”.¹⁶⁰ Therefore, it seems that the best protection for computer programs in digital databases is patent or arguably copyright. These two concepts do not rely upon the beneficial or detrimental impact of use of computer programs by third parties. As mentioned in this thesis,¹⁶¹ this proposed system suggests that patent protection provides an acceptable level of protection for the computer program in a digital database. The main idea behind this suggestion is that the function or mechanical consequences of the role of the computer program are to be protected rather than it is considered as an expression. The best form of computer program protection depends considerably upon the nature of the use which the computer program is expected to be put to.¹⁶² Patent protection is ideal in this regard.

¹⁶⁰ HWAM Hanneman, *The Patentability of Computer Software* (Kluwer Law & Taxation Publishers 1985) 9 [hereafter Hanneman, *The Patentability of Computer Software*].

¹⁶¹ See Chapter 3.

¹⁶² Hanneman, *The Patentability of Computer Software* 12.

7.7. Existing stakeholders

7.7.1. Foreign investors and domestic investors

The ultimate goal of this thesis is to set up a mechanism which irons out the laws pertaining to the protection of digital databases in Sri Lanka as this will, ultimately, be beneficial to its citizens. The first stage of this proposal focuses on database creators, i.e. owners and/or authors and database users with the expectation of attracting foreign investors and domestic investors. As a developing country, one of the important sources of investment is foreign investment for Sri Lanka. Sound legal framework and efficient markets attract foreign investment. Therefore, the thesis expects to reduce the uncertainty of the existing laws applicable to databases, through the proposed database protection system.¹⁶³

7.7.2. Database users and owners/authors

Other stakeholders of this proposed mechanism are users and owners or authors of the digital databases. This mechanism will organise the rights and duties of the digital database users and authors. The proposed system consists of copyright, patent protection, contract, unfair competition and misappropriation and the *sui generis* rights regime. Copyright¹⁶⁴ and patent protection¹⁶⁵ discusses the rights of the digital database authors and the relevance of those rights in the event of an infringement. A contract, as a protection mechanism,

¹⁶³ See Chapter 1 at 1.6.2. Link between protection and investment.

¹⁶⁴ See Chapter 2.

¹⁶⁵ See Chapter 3.

takes into account the rights and duties of both the database authors and users.¹⁶⁶ Unfair competition and misappropriation laws protect the rights of legal competitors in the digital database field and these laws further maintain competition in the field.¹⁶⁷ The *sui generis* right protection addresses the issue of substantial investment¹⁶⁸ which links with the contribution of database users and owners or authors.

7.7.3. The general public

The end users of all benefits which come from the proposed system are the general public of Sri Lanka. In all the countries, developed or developing, the lives of people are now heavily dependent on information based economics and social networks which are based on circulation of data.¹⁶⁹ These data are meaningfully managed and manipulated by digital databases.¹⁷⁰ The effectiveness and meaningfulness are high in the digital databases. Digital format of database enhances the value and/or usefulness of data/information.¹⁷¹ Therefore, the system which makes deliberate formalities for the practice of digital databases can produce benefits to the general public.

¹⁶⁶ See Chapter 4.

¹⁶⁷ See Chapter 5.

¹⁶⁸ Council Directive 96/9 EC (OJ L 077/20), art. 7(1); See Chapter 6 at 6.3. Substantial investment and 6.4. Substantiality of the investment.

¹⁶⁹ Conley *et al.*, 'Database Protection in a Digital World' at para 1-11.

¹⁷⁰ Pattison, 'The European Commission's Proposal on the Protection of Computer Databases' at 115.

¹⁷¹ Conley *et al.*, *supra* n.169, at para 13.

7.7.4. Law-makers and policy-makers

This research will act as a guide for the law-makers and policy-maker in Sri Lanka and the Asian region in general. As digital database protection is a new concept to the Sri Lankan legal regime, this mechanism would be a stepping stone for the law and policy-makers in the field of information technology law and information based economics. In this proposed system, the Sri Lankan legal system will come across the concept of unfair competition and misappropriation laws in relation to the digital databases. As this thesis is a discussion of patent protection in computer programs in digital databases, this concept will guide and examine the possibilities of use of patent protection in computer program in other fields and computer programs in databases themselves.

7.7.4.1. Judges and lawyers

The Sri Lankan Parliament exercises law-making power.¹⁷² However, Sri Lanka is a country with a bi-juridical legal system which consists of civil law and common law.¹⁷³ Therefore, the Parliament provides the central source of law such as the Constitution and statutes while the Supreme Court of Sri Lanka has exclusive jurisdiction over the interpretation of the Constitution and statutes.¹⁷⁴ The legal precedence of interpretation of statutes depends on the facts of the case. Under these circumstances there may exist many guidelines. This starts

¹⁷² 1978 Constitution of Sri Lanka, arts. 4(a), 75.

¹⁷³ LJM Cooray, 'Common Law in England and Sri Lanka' (1975) 24/3 ICLQ 553; LJM Cooray, *An Introduction to the Legal System of Ceylon* (Lake House Investments 1972).

¹⁷⁴ 1978 Constitution of Sri Lanka, arts. 4(c), 125.

with statutes¹⁷⁵ and then moves on to decided cases,¹⁷⁶ customs¹⁷⁷ and other guiding resources.¹⁷⁸ As Sri Lanka has only just begun considering the information technology law field, the proposals from this proposed system would guide the judges and lawyers.

7.7.5. Other international researchers in the database field

As discussed in the introductory Chapter, database protection has been examined by numerous scholars. This thesis mainly focuses on four of these researchers.¹⁷⁹ None of them discussed in detail those developing countries in South Asia which depend upon foreign and domestic investment. This thesis identifies the contribution of computer programs in enhancing the value and/or usefulness of data in digital databases.¹⁸⁰ This thesis further examines the digital database context in relation to investment in the South Asian region. In so doing, the proposed system makes a link between a digital database as an emerging concept in the digital era and investment in developing countries. In this regard, this thesis points out the link between protection and attraction of

¹⁷⁵ LJM Cooray, *An Introduction to the Legal System of Ceylon* (Lake House Investments 1972) 150.

¹⁷⁶ LJM Cooray, *ibid.*, 154; HW Tambiah, *Principles of Ceylon Law* (HW Cave & Company 1972) 90.

¹⁷⁷ HW Tambiah, *Sinhala Laws and Customs* (Lake House Investments 1968) ch 2, 24ff; LJM Cooray, *An Introduction to the Legal System of Ceylon* (Lake House Investments 1972) ch 4, 99ff; HW Tambiah, *Principles of Ceylon Law* (HW Cave & Company 1972) 82.

¹⁷⁸ LJM Cooray, 'Common Law in England and Sri Lanka' (1975) 24/3 ICLQ 553; LJM Cooray, *An Introduction to the Legal System of Ceylon* (Lake House Investments 1972) ch 5, 149ff.

¹⁷⁹ See Chapter 1 at 1.6.5. Previous research carried out in this area.

¹⁸⁰ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

investment.¹⁸¹ In this way, this research aims to provide guidance for researchers around the world.

7.8. Parliamentary process

The legislative power of Sri Lanka is exercised by Parliament.¹⁸² Parliament has power to make laws, including laws that have a retrospective effect and repeal or amend the Constitution.¹⁸³ The law-making process starts from the bill stage, either as a Government bill or a Private Member's bill. Government bills are classified into ten categories¹⁸⁴ and have to be read three times before Parliament.

¹⁸¹ See Chapter 1 at 1.6.2. Link between protection and investment.

¹⁸² 1978 Constitution of Sri Lanka, art. 4(a).

¹⁸³ 1978 Constitution of Sri Lanka, art. 75.

¹⁸⁴ "The Government Bills may be classified as follows

1. Ordinary Bills published in the gazette are placed in the Order paper seven days after the publication in terms of Article 78.
2. Bills which are in the opinion of Cabinet of Ministers urgent in the national interest need not be gazetted in terms of Article 78.
3. Bills to amend, repeal and replace the Constitution in terms of Article 82, 83 and 84.
4. Statutes to be made by the Provincial Councils in respect of matters in List 1 of the Ninth Schedule (Provincial Council List) in terms of Article 154G (1).
5. Bills to amend or repeal the Chapter XVIIA or Ninth Schedule of the Constitution in terms of Article 154G (2).
6. Bills to be passed by Parliament in respect of matters in the Provincial Council List in terms of Article 154G (3).
7. Bills to be passed by Parliament on the request of Provincial Councils in respect of matters in the Provincial Councils list in terms of Article 154G (4).
8. Bills to be passed by Parliament with respect to matters in List 111 of Ninth Schedule (Concurrent List) in terms of Article 154G (5)(a).
9. Statutes to be made by Provincial Councils with respect to matters in the Concurrent List in terms of Article 154G (5)(b).
10. Appropriation Bill. "

The Parliament of Sri Lanka <http://www.parliament.lk/functions/government_bills.jsp> accessed 1May 2013.

Article 78 of the Constitution provides that after seven days from the publication in the government Gazette and on the request of a Cabinet Minister or a Deputy Minister, the bill is placed in the Order Paper for the first reading as per the Standing Order 45. The bill will be printed by Parliament after the first reading. In this instance, the Cabinet or Deputy Minister should be the Minister in charge of the relevant subject area of the bill. This proposed system can be brought by the Minister of Science and Technology who is responsible for issues of information technology and computers. On the second reading, the bill might be debated in Parliament. After the second reading, the Standing Order 52 requires the bill to be referred to the Parliamentary Committee or to a Select Committee or a Standing Committee upon the request of a Minister or a Deputy Minister. When the bill has been referred to any of the above Committees, there will be no further proceeding until the Committee reports to Parliament in terms of Standing Order 53.¹⁸⁵

When the Parliamentary Committee finishes considering the bill, the Chairman reports on the bill, with or without the amendments, to Parliament. In terms of Standing Order 67, the Report of a Standing Committee or a Select Committee will also be considered and reported to Parliament.¹⁸⁶ After this, the third reading of the bill takes place followed by the passing of the same. “At the third reading any verbal or drafting amendment may be made upon motion after notice and forwarded for the Speaker’s Certificate under Article 79 or 80 in terms of Standing Order 69”.¹⁸⁷ This is the last opportunity to question a piece

¹⁸⁵ The Parliament of Sri Lanka, Functions-Government Bill (Internet) <http://www.parliament.lk/functions/government_bills.jsp> accessed 28 June 2013.

¹⁸⁶ The Parliament of Sri Lanka, *ibid*.

¹⁸⁷ The Parliament of Sri Lanka, *ibid*.

of legislation. Once the bill is passed and becomes an Act of Parliament no one can question the validity of it in a court of law other than on an interpretation issue.

In a Private Member's bill proceedings, any member of Parliament who wishes to introduce a bill may do so by giving notice in the Gazette in all three languages (Sinhala, Tamil and English) and at least one newspaper (any one of three languages) in terms of Standing Order 47 and 48.¹⁸⁸ This advertisement should include the nature of the bill in general and its objectives and it should appear at least one month before the application for leave to introduce the bill is made. This proposed bill can be placed before Parliament as a Private Member's bill as it "affects or benefits to some particular person, association or corporate body".¹⁸⁹ The stakeholders of this proposed bill would be a person, association or corporate body. The practical operation of this proposed system can be examined through the case studies related to the mechanisms and rights specified under the proposed system.

¹⁸⁸ The Parliament of Sri Lanka, Functions-Private Member's Bills (Internet) <http://www.parliament.lk/functions/private_member_bill.jsp> accessed 28 June 2013.

¹⁸⁹ The Parliament of Sri Lanka, *ibid*.

7.9. Case studies in relation to the proposed system

7.9.1. Copyright case study

This thesis will examine the applicability of copyright to this proposed protection mechanism through a case study. The proposed system divides the digital databases into two separate parts in order to apply copyright and patent protection. The database attracts the copyright protection¹⁹⁰ while the computer program is protected by patent protection.¹⁹¹

As seen in the Copyright Chapter, the owner and author of a digital database are two different characters despite some situations where the owner is also the author of the database.¹⁹² The owner recruits the author to set up a digital database. In this situation, the author decides the main set up of the digital database and which data fits with which computer program. Section 14(4) of the IP Act of 36/2003 in Sri Lanka states that:

“[I]n respect of a work created by an author employed by a physical person or legal entity in the course of his employment, the original owner of the economic rights shall, unless provided otherwise by way of a contract, be the employer. If the work is created pursuant to a commission, the original owner of economic rights shall be, unless otherwise provided in a contract, the person who commissioned the work”.

The ownership and liabilities depend on the contractual terms and conditions agreed by the owner and author. The concept of the author of the work in the

¹⁹⁰ See Chapter 2.

¹⁹¹ See Chapter 3.

¹⁹² See Chapter 2 at 2.5.7. Authorship.

light of copyright law then depends on the nature of the above mentioned contract.

The content of the database consists of data which has been collected from different sources. The copyright of individual data is still enjoyed by the author of the particular data. In a database of Traditional Masks (*Ves Muhunu*)¹⁹³ in Sri Lanka, for example, we may have a collection of traditional poems and photographic examples which have been taken by different photographers. Copyright of these photographs are still owned by those photographers even though they are included in a digital database which is owned by a different person. Digital databases are, therefore, 'works of joint authorship' which are produced by the collaboration of different authors.¹⁹⁴

Only collections of data, such as pictures or traditional poems, in the aforementioned database, are not considered a database in the light of existing database law.¹⁹⁵ As this proposed system also provides, copyright law in the UK defines the database as "a collection of independent works, data or other materials which are arranged in a systematic or a methodical way".¹⁹⁶ This collection requires some minimal structure in order to enhance the value and/or usefulness of its data. This structure is provided by the functions of computer programs in digital databases. The computer program makes useful patterns of

¹⁹³ In Sri Lankan traditional dancing well decorated Masks which are locally called as *Ves Muhunu* are used. For example see *Masksariyapala* <http://masksariyapalasl.com/our_products.htm> accessed 1May 2013.

¹⁹⁴ CDPA 1988, s 10.

¹⁹⁵ Council Directive 96/9 EC (OJ L 077/20), art. 1(2); CDPA 1988, s 3A; US Copyright Act 1976, 17 § 101; IP Act of 36/2003/SL, s 7(1)(b).

¹⁹⁶ CDPA 1988, s 3A.

data in order to function in the KDD process.¹⁹⁷ This process finally creates value enhanced useful data. Therefore, a mere collection of data which has minimal structure does not constitute a database.

Under these circumstances, a database attracts copyright as a literary work. As Section 3A(2) of the CDPA 1988 provides, “a literary work consisting of a database is original if, and only if, the selection or arrangement of the contents of the database proves that it constitutes the author’s own intellectual creation”. If this brings a new value or usefulness to mere data then it is said to be an original work and qualifies for copyright protection.

In this situation, the meaning of author is different in digital databases as there is computer program involvement and contribution. Even though Sections 9(3) and 178 of CDPA 1988 provide a different meaning,¹⁹⁸ the proposed system would treat this situation in a separate manner which can exist in patent protection. This is discussed in the following patents case study.

As per Database Directive,¹⁹⁹ a higher level of originality is not required under the proposed system.²⁰⁰ The ‘originality’²⁰¹ was also the turning point of *sui generis* rights, that, under the EU law, derives from copyright law. However, the proposed system does not require the higher level of originality because this

¹⁹⁷ See Chapter 1 at See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

¹⁹⁸ The requirement of an author’s intellectual creation implies that there can be no copyright in computer-generated databases. Other forms of computer generated work attract copyright under ss 9(3) and 178 of CDPA. Under s 178, this Act describes that there is no human author in computer-generated work.

¹⁹⁹ Council Directive 96/9 EC (OJ L 077/20).

²⁰⁰ Davison, *The Legal Protection of Databases* 10.

²⁰¹ *Feist Publications Inc. v Rural Telephone Service Co.* 499 US 340 (1991).

system needs to cover all the Sri Lankan digital databases which enhance the value and/or usefulness of data. The proposed system is primarily set up for providing protection for the digital databases despite exempt them with requesting formalities. The purpose of employing copyright protection in the proposed system is to protect the investment in database creation. However, it does not mean that this system will dispense with the moral values which come with the database creation.

The main purpose of this case study is to show the key points of the proposed system in terms of copyright protection. Copyright protection under the proposed system goes to the human authors rather than to computer programs which enhance the value and/or usefulness of data in digital databases. This authorship may be a joint authorship because digital databases are collaboration between different authors producing different data. Furthermore, this point confirms the validity of low level originality in digital databases.²⁰² This means that the proposed system provides copyright protection over digital databases which may have low level of originality. This further confirms the simultaneous practice of copyright and the *sui generis* right protection which was introduced in order to avoid the requirement of higher level of originality under copyright law.²⁰³ However, mere collections of data are not considered as databases unless the collection enhances the value and/or usefulness of data. Copyright protection in the proposed system will aim to protect the investment beneath the efforts to enhance the value and/or usefulness of data in digital databases.

²⁰² An Australian judgement-*Telstra v Desktop Marketing Systems Pty Ltd* [2001] FCA 612.

²⁰³ Council Directive 96/9 EC (OJ L 077/20), art. 3; COM (92) 24 final, paras 2.2.5, 2.3.3.

7.9.2. Patent case study

As suggested throughout this thesis,²⁰⁴ digital databases are divided into two parts for the purpose of legal protection. The content of a database and computer programs which manipulate the content data are the two parts that attract copyright and patent protection under the proposed system respectively. It should be noted that this proposed patent protection of computer programs is limited to the computer programs in digital databases only. This proposal does not mean to extend its proposed patent protection of computer programs in digital databases to the entire computer programs field.

This case study addresses the digital database of a telephone directory and the conventional physical telephone directory. In a physical telephone directory, names of the owners of telephone numbers and their addresses are organised in alphabetical order by owners' surname. If someone wants to find out a telephone number, he/she needs to know the surname of the owner of a particular number. With this detail to hand, he/she could find out the particular number as well as other details, such as other given names and the address of the owner of a particular number. It is not possible to find the number or any other details from this directory without knowing a person's surname. Therefore, this impairs the usability of a physical telephone directory.

This situation is totally different in a digital telephone directory database. Either the name or other names or one or two details of the address line of the owner of a particular number is enough to find a particular telephone number. Sometimes, it may be enough to know just a small part of a number. A digital

²⁰⁴ See Chapter 3.

database is much more convenient than a physical one and it has been created by a computer program which manipulates the data in the digital database. This shows the contribution of the computer program in digital databases and how the computer programs enhance the value or usefulness of data in databases. This proposed system suggests clarifying and identifying this contribution separately. This separate protection falls under patent protection as has been proposed.

There are two systems to protect computer programs, copyright and, on occasion, patents.²⁰⁵ The proposed mechanism opts for patent protection for computer programs in digital databases considering their technical characteristics and functions. The patentability of computer programs depends on their capacity to address the technicality in the functioning of the computer despite the provisions in Section 1(2)(c) of the Patents Act 1977²⁰⁶ and Article 52 of the European Patent Convention 2000.²⁰⁷ If it is merely an improvement in programming for the processing of information, then it is not patentable.²⁰⁸ The function of computer programs in digital databases differs from the mere improvement in programming in the processing of data. Conley *et al.*, state that:

“A database, or information system, contains two primary forms of digital property: raw data, which can be a source of knowledge or entertainment value, and tools, which are programs that can be used to communicate, store, or manipulate raw data. A fully developed database is an interrelated set of components capable of generating

²⁰⁵ See Chapter 3 at 3.7. “As such” exclusion.

²⁰⁶ “Section 1(d) the grant of a patent for it is not excluded by subsections (2) and (3)... Section 2(c) a scheme, rule or method for performing a mental act, playing a game or doing business, or a program for a computer”.

²⁰⁷ EPC 2000, art. 52 (2) (c) schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers.

²⁰⁸ The Court of Appeal in *Genentech Inc.’s Patent* [1989] RPC 147 at 240.

value from the collection, processing, merger, storage, or dissemination of data. In practice, databases are arrayed along a continuum according to where their primary value lies. At one end are those whose value depends on the data themselves. At the other end are those databases whose critical element is the system for manipulating the data. Most, of course, are found somewhere in the middle”.²⁰⁹

The majority of computer programs in digital databases are, therefore, specifically designed for the functions of a particular database. Millennium 2, for example, is a computer program specifically designed for the UK Share Market database. The computer programs attached to supermarket tills are specifically designed for functions such as calculation, the transformation of customer/consumer patterns of data to the main server in order to make decisions on sales promotions, and/or the transformation of sales data in order to compare stocks.²¹⁰ The existence of the computer program depends on the function of the database and the existence of functions in a database depends on a particular computer program.

As mentioned in the copyright case study, the critical part of patent protection of computer programs comes with the authorship of digital databases. Authorship of a digital database is a debatable issue as humans or computer program could be considered ‘authors’. The end results of digital databases and the presentation of data are produced by the chosen computer program. This program has been chosen by the human author of the particular digital database. Moreover, the choice of data for inclusion in a computer program is decided by a human author. The end result of the digital database which is

²⁰⁹ Conley *et al.*, ‘Database Protection in a Digital World’ at para 13.

²¹⁰ E-POS (Electronic Point of Sale) <<http://www.epos.co.uk>> accessed 1 May 2013, for more details see Chapter 3 at 3.8. Scope of “as such” application to the proposed system.

created through the functions of computer programs is necessarily part of a human author's intention in setting up a particular digital database. Therefore, this proposed system suggests that authorship of the end result of a digital database is ascribed to the author of the digital database who takes the decision to use a particular computer program.

The purpose of a discussion on this patent case study is to point out the main features of patent protection of computer programs in digital databases. This thesis identifies the contribution of computer programs in digital databases and this demonstrates the functionalities of computer programs which can be found in the process of enhancement of value and/or usefulness of the data. This is one of the main points of introducing patent protection for computer programs in databases. The other point is that patents provide a strong protection which helps to attract investors and researchers to developing countries.²¹¹ Therefore, this thesis proposes patent protection over computer programs depending on the notion of enhancement of value and/or usefulness of the data in digital databases. In other words, under this proposed system, contribution to value enhancement has to be proven in order to be protected by patent.

²¹¹ Imam, 'How Patent Protection Helps Developing Countries' at 389; See Chapter 3 at 3.2. Origin of the patent protection issue.

7.9.3. Contract case study

The contract regulates the point of access²¹² and use²¹³ of a digital database. This protection mechanism basically decides the boundaries between database owners and authors, and database users. This can be utilized to define the duties and liabilities of database owners, authors and other third parties who provide data and subsequent services to maintain or set up the databases. Therefore, the contract is a multipurpose tool for the protection of digital databases. The example in this case study is *E-Legal*, which provides digital legal resources such as *WestlawUK* or *HeinOnline*.²¹⁴ The basic structure of this database is that it has data, legal materials such as journal articles, cases, books or case reviews, comments and computer programs which manipulate the data.

When setting up the database, the owner can choose the contract to define the duties and liabilities of the owner and database authors. Sometimes, the owner himself may be the author or one of the authors of the database. However, duties and liabilities of the owner and author are different and these can be seen in their contractual terms and conditions. The law considers the role of the owner and author differently. In this *E-Legal* database, the owner recruits a database author to set up his electronic legal database. The author recruits subcontractors to collect legal resources. At the same time, he employs people

²¹² See Chapter 4 at 4.5. Contract as a gate lock.

²¹³ See Chapter 4 at 4.2. Standard Form / Adhesion contracts.

²¹⁴ WestlawUK <<http://www.westlaw.co.uk/>>, HeinOnline <<http://home.heinonline.org/>> accessed 22 March 2013.

to convert the physical data into a digital format which may be HTML or PDF,²¹⁵ both of which can be manipulated by computer programs. The author selects a computer programmer to set up the computer program to manipulate the above electronic data. This computer program classifies the legal data into different formations, such as according to the publication year, subject, and the court which decided the case or any other search terms which can be found from the documents contained in the database. This computer program provides a search engine which speeds up the searching process and organises the data according to the user's selected options. In this database setting-up process, all the necessary legal liabilities can be decided from the contractual terms and conditions.

Contract law is also the governing tool for the maintenance of digital databases. Providing data to a legal database is a continuous process and part of its maintenance process. In so doing, the owner or author can use sub-contractors and their duties and liabilities can be defined according to their contract. As with many other things, digital databases also need continual maintenance to keep them up to date. Providing data and providing technical maintenance is a continuous process. Maintenance relating to the data enhances the value of the data in the digital database. In this process, the contract can be used in different ways to protect digital databases.

The relationship between the owner and the users of a database can be maintained by the contract. This is the easiest way to control the usage of digital databases. There are a number of advantages in the use of contracts for

²¹⁵ See Chapter 2 at 2.3.Tables, Compilations and databases under Copyright Law.

protection purposes in relation to the connection between the owner and users.²¹⁶ In this example, the *E-Legal* owner can categorise the users such as users for educational purposes, users for commercial purposes and users with contributions. The owner may then apply different terms and conditions according to their use and contribution. This may result in charging different rates for different user categories.²¹⁷ The contract protection system provides freedom to tailor the agreement to the needs of both parties.²¹⁸ This system further ensures that the owner receives an appropriate return on his investment.²¹⁹

The main disadvantage of this contractual protection system is that it cannot be enforced against a third party who uses the data in a particular database without the permission of the database owner.²²⁰ Most of the time, these third parties obtain data from the owner's contractual second party. The proposed system provides for the setting up of terms and conditions in the contract with the intention of avoiding releasing data to a third party. In this example, the owner of *E-Legal* can include a term or condition stating that: 'no one can use the data in *E-Legal* database without prior approval of its owner and user/s have to mention the source of data as *E-Legal*'. This practice is similar to the liabilities found in the notion of reverse passing off under the discussion of

²¹⁶ See Chapter 4 at 4.5. Contract as a gate lock and 4.5.1. Economic advantage of contractual protection of digital databases.

²¹⁷ See Chapter 4 at 4.5.1. *ibid.*

²¹⁸ See Chapter 4 at 4.5. *supra* n.216.

²¹⁹ Davison, *The Legal Protection of Databases* 40.

²²⁰ See Chapter 4 at 4.6. Third party involvement.

unfair competition and misappropriation.²²¹ Furthermore, users should mention their membership number at the same time, unless it is against the liabilities of the owner of *E-Legal*. In order to enforce this contractual term or condition, the owner can use anti-circumvention technical measures such as watermarks. This can also be circumvented by imposing a user registration, which means that a database is limited to registered users.

7.9.4. Unfair competition and misappropriation case study

The Database Directive allows for the protection of databases by unfair competition and contract laws in addition to the *sui generis* right protection.²²² Under the contract protection, the digital databases owner has a higher bargaining power because he first decides the terms and conditions of the contract and subsequently those terms and conditions are accepted or refused by the users. This practice creates market power which provides the ability to set prices above the marginal cost.²²³ A higher level of bargaining power provides opportunities to misuse or abuse market power, a situation that can be seen when there is an imbalance in the market. Such imbalances reduce the predictability and this is linked with the returns on investment which, therefore, reduces the level of attraction for investors. Unfair competition laws, along with the concept of misappropriation, prevent the abuse of market power. As a result of this prevention, the balance of the market is maintained.

²²¹ See Chapter 5 at 5.3.1. Reverse passing off doctrine.

²²² Council Directive 96/9 EC (OJ L 077/20), art. 13.

²²³ WM Landes, RA Posner, 'Market Power in Antitrust Cases' (1981) 94/5 HLR 937 at 937, 939

The aforementioned *E-Legal*²²⁴ can be used as a case study for unfair competition and misappropriation. This hypothetical example mainly addresses the notion of the attractiveness of the investment. The owner of *E-Legal* expects benefits, profits on his investment in the digital database. Therefore, the provided protection mechanisms should address the economic interest of the investors. Unfair competition law torts such as passing off and reverse passing off can be recruited for the protection of digital databases as they protect the economic interests of the parties.²²⁵ The *E-Legal* digital database can easily abuse the reputation of parallel electronic legal resource databases.²²⁶ In this way, passing off can be recruited to reject the unauthorised practices against the commercially valuable reputation of the digital databases.²²⁷ This commercially valuable reputation is part of profits or returns and, therefore, attracts future investments.²²⁸ Providing a passing off protection to the commercially valued reputation protects the investment in digital databases and helps to attract future investment to the digital databases arena.

The reverse passing off doctrine can be utilised so as to require identification of the source of information in the *E-Legal* digital database. This shows the link between the existing data in the *E-Legal* digital database and its source. *E-Legal* digital database is liable to make clear the original information source.

²²⁴ See this Chapter at 7.9.3. Contract case study.

²²⁵ H Carty, *An Analysis of the Economic Torts* (2nd edn, OUP 2010) 1; See Chapter 5 at 5.3. Passing off and 5.3.1. Reverse passing off doctrine.

²²⁶ Landes, RA Posner, 'The Economics of Trademark Law' at 272; P Resnick *et al.*, 'The value of reputation on eBay: A controlled experiment' (June 2006) 9/2 EE 79 at 80.

²²⁷ *Henderson v Radio Corps Pty* [1969] RPC 218 at 244 (per Manning J); *Weever v Brayton*, 152 Mass. 101, 25 NE 46 (1890).

²²⁸ P Resnick *et al.*, *supra* n.226, at 80; See Chapter 1 at 1.2.1. Using economics as an approach to the concept of 'property'.

Therefore, the doctrine reduces the possibility of infringement of the rights of original information source holders which may be parallel electronic legal resources databases. Reducing the possibility of infringement protects the investment which consequently attracts future investment.²²⁹ Minimal levels of infringement maximise the level of profit and again, this helps to attract future investment. This doctrine further maintains the balance of the electronic legal resources database market because it helps to reduce the infringement of the rights of the original information source.

Taking action against parasitism is the other tort which protects the investment in databases.²³⁰ Parasitism is the practice of taking advantage of the fruits of other people's labour.²³¹ Providing free riding is an inherent task of any type of digital database. This practice attracts users to the particular database. In the *E-Legal* example, a digital database also has to provide free riding for its users as part of attracting users. This free riding practice may lead to the misuse of *E-Legal's* digital database data.

In concluding this unfair competition and misappropriation case study, it should be noted that a database is a commercial component²³² which attracts domestic and foreign investments. The purpose of competition law is to prevent the

²²⁹ See Chapter 1 at See Chapter 1 at 1.6.2. Link between protection and investment.

²³⁰ See Chapter 5 at 5.4. The theory of parasitism and its applicability to the proposed Sri Lankan protection system.

²³¹ *L'Oreal SA v Bellure NV* [2010] EWCA Civ 535, 2010 WL 1990595 (per Jacob LJ).

²³² T Riis, 'Economic Impact of the Protection of Unoriginal Databases in Developing Countries and Countries in Transition' (2002) Copenhagen: Copenhagen Business School Center for Law, Economics and Financial Institutions LEFIC Working Paper 2002-03 at 3-7; YM Braunstein, Economic Impact of Database Protection in Developing Countries and Countries in Transition (Standing committee on copyright and related rights Seventh Session Geneva May 13 to 17, 2002 WIPO) at 14.

abuse of market power or illegitimate acquisition of such power through price fixing. The basic theory behind competition law is that this will ensure proper market operation and prevent market power distortions. Herr observes that:

“[C]ompetition law does not begin to deal with the everyday, run-of-the-mill access issues that plague re-users and consumers. It is geared toward extreme behavior. While competition law has an important role to play, the less extreme concerns can only be addressed within the legislation itself. Competition law may resolve issues such as refusals to license by database makers that have market power”.²³³

One of the main themes of this proposal is to promote the investment in the Sri Lankan digital market. It is important to ensure the proper market operation in order to attract investment to the island. Therefore, the basic theories of competition law and misappropriation fit well with the purposes of this proposed system.

7.9.5. The *sui generis* right protection case study

This thesis assesses the availability of the *sui generis* right protection of digital databases in relation to the Sri Lankan perspective. The main purpose of this assessment is to consider suitable ways of protecting investments in digital databases. One of the purposes of introducing the *sui generis* right protection was to promote the production incentives and information market which caters for the rapid development of information needs in the EU and the rest of the world.²³⁴ This mirrors the need for protection mechanisms to cope with the rapid development of the Sri Lankan digital database arena.

²³³ Herr, 'Is the *Sui Generis* Right a Failed Experiment?' at 151.

²³⁴ Council Directive 96/9 EC (OJ L 077/20), recitals 1- 4; See Chapter 6 at 6.2. Meaning of the *sui generis* right.

E-Legal can be used as a case study here as well. The *E-Legal* database consists of different kinds of digital legal resources such as case reports, journal articles, statutory instruments and current awareness. The installed computer programs manipulate these data at the demand of users. For example, searching for the keyword, 'database', captures all the legal resources (cases, journal articles, legislation and current awareness) which have the word 'database'. This achronologically ordered legal resources search was created through the functions of installed computer programs. A 'search within results' can be carried out for other words, such as 'digital'. This removes the legal resources which do not have the character 'digital' and returns a list of legal resources which have both the words 'digital' and 'database'. This process produces useful patterns which simplifies matters for users. It is also a process that has come about due to substantial investment by *E-Legal*. The owner of the *E-Legal* database has to point out this substantial investment in order to attract *sui generis* right protection.²³⁵ The substantial investment can be found from obtaining, verification or presentation of the contents of the databases. This thesis has identified the value enhancement process of these three areas.²³⁶

²³⁵ Council Directive 96/9 EC (OJ L 077/20), art. 7.

²³⁶ See Chapter 1 at 1.5. Ways that digital databases enhance the value and/or usefulness of data.

7.10. Reforms to domestic institutions and new institutions

There are direct and indirect effects on national institutions of this proposed system. The system directly affects the National Intellectual Property Office of Sri Lanka (NIPO), the Board of Investments of Sri Lanka and the Telecommunications Regulatory Commission of Sri Lanka.

7.10.1. The National Intellectual Property Office of Sri Lanka

The NIPO was established in 1982 under the provisions of the Code of Intellectual Property Act no 52 of 1979. This is the body which is responsible for the administration of the intellectual property system in Sri Lanka. The basic functions of this institution are as follows:

- “(i) Administration of intellectual property including the activities relating to registration and post registration of marks, patents, industrial designs, layout designs of integrated circuits and collective societies.
- (ii) Collection and dissemination of Intellectual property information.
- (iii) Promotion of awareness in the subject of intellectual property.
- (iv) Promotion of the use of intellectual property system in the development process by the intellectual property owners, enterprises & industries.
- (v) Fulfilment of international obligations of Sri Lanka relating to intellectual property and promotion of international and regional cooperation on Intellectual property.
- (vi) Proposing policies on Intellectual Property.
- (vii) Facilitation of enforcement of IP rights including dispute resolution in the field of copyright and related rights.
- (viii) Registration and administration of Intellectual Property Agents”.²³⁷

This system is new to the Sri Lankan legal regime and, because of this, the NIPO needs to run several awareness programmes in order to create

²³⁷ National Intellectual Property Office of Sri Lanka <<http://www.nipo.gov.lk/about.htm>> accessed 12 May 2013.

awareness among the stakeholders. The NIPO should conduct this process as it is one of their main functions. This comes under numbers (ii) and (iii) of the functions mentioned above.

The institution's set up needs to be changed for the registration of patent protection for computer programs in digital databases. When setting up this legal process, it is important to keep in mind that the applicability of patent protection is only for the computer programs which are used to manipulate the data in digital databases. Furthermore, this institution should take necessary actions to avoid excessive use of this patent protection interpretation for the general use of computer programs.²³⁸

One of the main aims of this proposal is to increase the attractions for foreign and domestic investment in the field of digital databases and consequently information technology and other related areas. To this end, this institution is the key legal personality to promote the facilities relating to awareness and maintain assistance. One of the functions of the institution is to promote the use of the intellectual property system in the development process. Given that protection and promotion of digital means is a new concept in Sri Lanka, this institution should set up sub-agencies. Under these sub-agencies it can protect the rights of digital database owners and related investors.²³⁹

One of the main sub-agencies under this institution which needs to be set up is a dispute resolution agency. Enforcement of digital database rights and liabilities depends on the functions of this agency. The efficiency and

²³⁸ Under functions number (i) above at 7.10.1. *The National Intellectual Property Office of Sri Lanka*.

²³⁹ Under functions number (vii) above at 7.10.1. *ibid*.

accountability of this agency will attract and, therefore, accelerate investment in the field. This proposed set up again fulfils one of the main aims of this proposal, that is, the acceleration of investment.²⁴⁰

As mentioned above, activating this proposed mechanism would oblige it to follow several domestic and international laws and treaties. The NIPO has to change its policies relating to digital databases in order to maintain the effects of these laws and treaties.²⁴¹

7.10.2. The Board of Investments of Sri Lanka²⁴²

The Board of Investments of Sri Lanka was established in 1978 under the provisions of Act of Board of Investment of Sri Lanka (Greater Colombo Economic Commission) No. 4 of 1978. Encouraging and promoting the foreign investments within Sri Lanka is one of the main objectives of setting up this Commission.²⁴³ This proposed system will also provide a platform for the acceleration of foreign investment which has a relevance to the objectives of the said institution. Therefore necessary amendments to the existing laws that are required to implement the proposed system will have to be brought by the Board of Investment.

²⁴⁰ Under functions number (vii) above at 7.10.1. *ibid.*

²⁴¹ Under functions number (v) above at 7.10.1. *ibid.*

²⁴² Board of Investments of Sri Lanka web page <<http://www.investsrilanka.com/>> accessed 1 May 2013.

²⁴³ Act of Board of Investment of Sri Lanka (Greater Colombo Economic Commission) No 4 1978, s 3.

For the implementation of the aforementioned objective, this institution can set up any new agency or department within or outside of Sri Lanka.²⁴⁴ The digital databases are used more often than Internet based systems and are, therefore, recognized as a global commodity. In this sense, to maintain efficiency, Sri Lankan digital databases may have to set up their physical offices somewhere outside the country. For example, the *Kapruka.com*²⁴⁵ database is based in Sri Lanka and has branches in: London; Lexington, USA; Blackwood, Australia and Colombo while they carry out their main business in Sri Lanka. According to this situation, the Commission has already obtained the legal capacity to control and extend their functions to a global level in line with digital database protection.²⁴⁶

All investment disputes under this Act should be referred for arbitration²⁴⁷ to the International Centre for Settlement of Investment Disputes.²⁴⁸ Therefore, Sri Lanka already has the legal capacity and background to maintain digital database investments and its performance at a global level. However, this proposal suggests amending the law to include the term 'digital databases'. This phrase would confirm the legality of investment in digital databases rather than mere inclusion of the word investment.

²⁴⁴ Act of Board of Investment of Sri Lanka (Greater Colombo Economic Commission) No 4 1978, s 14.

²⁴⁵ "Kapruka.com is Sri Lanka's largest e-commerce organization. With over 8000 products and over 30 types of distinct services Kapruka has set the bar for e-commerce footprint of Sri Lanka. Kapruka primary goal to provide a world class service to Sri Lankan's who shop online". <http://www.lanka.info/contactUs/about_us.jsp> accessed 12 May 2013.

²⁴⁶ Act of Board of Investment of Sri Lanka (Greater Colombo Economic Commission) No 4 1978, s 15.

²⁴⁷ Act of Board of Investment of Sri Lanka (Greater Colombo Economic Commission) No 4 1978, s 26.

²⁴⁸ International Centre for Settlement of Investment Disputes, 'Convention on the Settlement of Investment Disputes Between States and Nationals of Other States' (ICSID, Washington 1965) <<http://www.jus.uio.no/lm/icsid.settlement.of.disputes.between.states.and.nationals.of.other.states.convention.washington.1965/>> accessed 14 June 2013.

7.10.3. The Telecommunications Regulatory Commission of Sri Lanka²⁴⁹

This is the regulatory body which governs the Internet in Sri Lanka. As this proposed system aims to institute a mechanism for the digital formation of databases, the legal and functional capacity of the Telecommunications Regulatory Commission of Sri Lanka should be examined. This Commission works together with the International Telecommunication Union (ITU)²⁵⁰ which is responsible for international cooperation and global harmonization of the usage of spectrum management,²⁵¹ while the Sri Lankan Commission is responsible for the domestic spectrum under the Telecommunication Act No. 25 of 1991 as amended by Act No. 27 of 1996. This Commission further provides and governs the data and telemetry services in Sri Lanka.

In performing the above mentioned activities by the Commission it has power to issue licences. In so doing, the Minister in the particular subject is the final decision-maker.²⁵² This proposed system suggests changing this procedure as this power is transferred to a committee that operates without political influences²⁵³ and helps to confirm the transparency and accountability of the licensing process. This suggestion is based on the well developed principle of separation of powers which emphasises the necessity of separating executive

²⁴⁹ Telecommunications Regulatory Commission of Sri Lanka <<http://www.trc.gov.lk/>> accessed 1 May 2013.

²⁵⁰ International Telecommunication Union <<http://www.itu.int/ITU-D/ict/>> accessed 1 May 2013.

²⁵¹ Generally functions of ITU <<http://www.itu.int/en/about/Pages/overview.aspx>> accessed 1 May 2013.

²⁵² Telecommunication Act No. 25 of 1991, s 17(2).

²⁵³ The Constitution of Sri Lanka 1978, arts. 43, 44. The President, appointed by presidential election, shall appoint the Ministers, may be appointed by Parliament election or the National list and shall decide the subject of particular Ministries.

power from the law-making process.²⁵⁴ This suggestion helps to attract domestic and international investments to the digital database market as it confirms the credibility of the decision-making process.

The Commission can make recommendations to the Minister in the public interest.²⁵⁵ This can be identified as an acceptable issue in line with the purpose of this proposed system. The term, public interest, would help to interpret the aims of the new digital database mechanism. However, it would be better to interpret the public interest with the business interest and investment interest²⁵⁶ of the digital databases.

The Commission still does not have a separate department or agency to govern the functions of digital databases. This proposal suggests setting up a specific department or agency to improve the efficiency of functions of digital databases which will help to attract investment to the field.

²⁵⁴ MS Paulsen, 'The Most Dangerous Branch: Executive Power to Say What the Law is' (1994-1995) 83 GLJ 217 at 221-222, 321.

²⁵⁵ Telecommunication Act No. 25 of 1991, s 17(3)(a).

²⁵⁶ See Chapter 1 at 1.6. The role of investment in database protection.

7.11. Impact on international law

Maskus notes that, “[e]lectronic transmissions of internet materials, broadcasts, and databases may not be adequately protected by standard copyrights and two treaties²⁵⁷ reached in the World Intellectual Property Organization call for stronger protection in certain dimensions”.²⁵⁸ In order to provide an international framework for the protection of intellectual property rights, the WTO introduced the TRIPS Agreement in 1995.²⁵⁹ To meet the WTO regulations all the member states are bound by this agreement. Member states have been given certain stipulated time periods with grace periods between 1 to 11 years²⁶⁰ to implement the provisions of the TRIPS Agreement, based on the member’s economic status. Developing countries were initially granted five years with the possibility of extension up to another five years, and this lapsed in January 2005. The least developed countries can enjoy this period up to 1st January 2016.

Comparatively speaking, the TRIPS Agreement provides high minimum standards²⁶¹ for each of the main categories of intellectual property rights and establishes standards of protection and enforcement.²⁶² The main aim with

²⁵⁷ World Intellectual Property Organization Copyright Treaty, 20 December 1996 and the WIPO Performances and Phonograms Treaty, 20 December 1996.

²⁵⁸ KE Maskus, ‘Intellectual Property Rights and Economic Development’ (2000) 32 CWRJIL 471 at 475.

²⁵⁹ JR Homere, ‘Intellectual Property Rights Can Help Stimulate the Economic Development of Least Developed Countries’ (2003-2004) 27 CJLA 277 at 282.

²⁶⁰ Smith, ‘Bringing Developing Countries’ Intellectual Property Laws to TRIPs Standards’ at 237.

²⁶¹ Smith, *ibid.*, at 236.

²⁶² JR Homere, *supra* n.259, at 282.

TRIPS Agreement is the WTO dispute settlement mechanism to resolve disputes between WTO members. However, the TRIPS Agreement continues to have problems with the issues resulting from different intellectual property rights. This point has been put forward by Smith in relation to the economic goals of developing countries:

“TRIPs offers specific provisions on intellectual property rights protection but lists these goals without providing any guidance that would help developing countries realize the benefits of these objectives. While industries in developed nations would immediately benefit from the specific of the TRIPs Agreement, it is unclear what immediate benefits would flow to the newly developed or developing country”.²⁶³

Sri Lanka was required to update the Code of Intellectual Property to meet the minimum standards imposed by the TRIPS Agreement. “The series of amendments suggested by the IPR Reform Commission resulted in the Code of Intellectual Property Act No. 36 of 2003 [IP Act 36/2003] which sought to incorporate most of the obligations imposed by the TRIPS Agreement”.²⁶⁴ As a result of this, computers and computer programs were included in the Sri Lankan legal regime. This reflects Article 10(1) of the TRIPS Agreement.²⁶⁵

²⁶³ Smith, *supra* n.260, at 238.

²⁶⁴ J Fernando, ‘Software Protection & e-Commerce in IPR’ Information and Communication Technology Agency of Sri Lanka (Internet) at 2
<[http://www.icta.lk/pdf/Article %20Software_Protection&e-Commerce.pdf](http://www.icta.lk/pdf/Article_%20Software_Protection&e-Commerce.pdf)>
accessed 9 March 2011.

²⁶⁵ “Article10 -Computer Programs and Compilations of Data
1. Computer programs, whether in source or object code, shall be protected as literary works under the Berne Convention (1971).
2. Compilations of data or other material, whether in machine readable or other form, which by reason of the selection or arrangement of their contents constitute intellectual creations shall be protected as such. Such protection, which shall not extend to the data or material itself, shall be without prejudice to any copyright subsisting in the data or material itself”.

To be consistent with Article 39 of the TRIPS Agreement, the IP Act 36/2003 introduced “a specific provision granting adequate protection to ‘undisclosed information’”.²⁶⁶ Section 160(6) of the IP Act 2003 states that any industrial or commercial act or practice which is a result in the disclosure, acquisition or use by others, of undisclosed information without the consent of the person lawfully in control of that information, the Act referred to as “the rightful holder”, shall constitute an act of unfair competition.

The WIPO Copyright Treaty (WCT)²⁶⁷ and WIPO Performance and Phonograms Treaty (WPPT) have played a role in the protection of computer programs.²⁶⁸ Although these instruments cover copyright, patent, trademarks, trade secrets, it does not cover the digital databases. Therefore, only complying with the TRIPS or WCT would not be a solution for the protection of digital databases in Sri Lanka.

However, in 1978 WIPO published the “Model Provisions on the Protection of Computer Software”.²⁶⁹ This law predicted protection for computer programs in

²⁶⁶ J Fernando, *supra* n.264, Fernando made this observation with referring to the case, *Northern Office Microcomputer v Rosentein* [1982] FSR 124.

²⁶⁷ “[T]he Treaty mentions two subject matters to be protected by copyright,

(i) computer programs, whatever may be the mode or form of their expression, and

(ii) compilations of data or other material (‘databases’), in any form, which by reason of the selection or arrangement of their contents constitute intellectual creations. (Where a database does not constitute such a creation, it is outside the scope of this Treaty.)”. World Intellectual Property Organization, ‘Summary of the WIPO Copyright Treaty (WCT) (1996)’ (Internet) <http://www.wipo.int/treaties/en/ip/wct/summary_wct.html> accessed 13 May 2013.

²⁶⁸ KE Maskus, ‘Intellectual Property Rights and Economic Development’(2000) 32 CWRJIL 471 at 475.

²⁶⁹ Hanneman, *The Patentability of Computer Software* 11; International Bureau of the World Intellectual Property Organization, ‘Model Provisions on the Protection of Computer Software’ (1978) WIPO Publication no. 814(E) [*reprinted in* 14 COPYRIGHT 6 (1978)].

all of their forms. The purpose of this law was “to assist countries in implementing or introducing certainty into their laws that are applicable to the protection of computer programs”.²⁷⁰ The protection of computer programs would have to be adapted to the legal system of the country adopting them and supplemented with the usual provision in its legislation. This provision enables the creation of a specific protection mechanism for computer programs in digital databases. This further removes the contradictions between the new system and international norms relating to the patent protection of computer programs in digital databases.

This Model Provision further distinguishes between “the computer program as such, the program description and the supporting material”.²⁷¹ This enables the introduction of a new form of protection, as this proposal suggests - patents, which can cover computer programs in digital databases. This thesis goes beyond the interpretation of computer program “as such”.²⁷²

It is useful to understand the functions of international organisations which closely depend on international database systems. The World Meteorological Organisation,²⁷³ for example, put forward the importance of establishing any *sui generis* rights regime.²⁷⁴ The functions of this organisation are global and

²⁷⁰ ‘Model Provisions on the Protection of Computer Software’, *ibid.*, at 8.

²⁷¹ Hanneman, *supra* n.269, 11.

²⁷² See Chapter 3 at 3.7. “As such” exclusion.

²⁷³ “WMO, was established in 1947, is to provide world leadership in expertise and international cooperation in weather, climate, hydrology and water resources and related environmental issues and thereby contribute to the safety and well-being of people throughout the world and to the economic benefit of all nations”. World Meteorological Organisation <http://www.wmo.int/pages/about/mission_en.html> accessed 13 May 2013.

²⁷⁴ Davison, *The Legal Protection of Databases* 271.

depend on information from all around the world. Therefore, it depends on various databases in different countries. To avoid the barriers of different laws on different databases in each country, they suggested setting up a *sui generis* rights regime. This proposed system needs to be flexible in legal terms, in order to deal with global organisations and their global cooperative activities. The legal framework of the NIPO and the Telecommunications Regulatory Commission of Sri Lanka need to be restructured along the lines of the above mentioned global activities.

7.12. Concluding comments

Sri Lanka is a fast developing economy in South Asia.²⁷⁵ Digital databases have become one of the building blocks for developing technologies and investment in Sri Lanka.²⁷⁶ Foreign and domestic investors expect protection for their investment as it is directly linked with a return on the investment. However, existing law pertaining to the database protection in Sri Lanka does not address the issue of investment in databases. The recognition given for the digital databases and contribution of computer programs under the legal system of Sri Lanka is very poor and therefore the investment behind the enhancement of the value and/or usefulness of data is neglected.

This thesis has argued that providing protection for digital databases attracts investment to the area of digital databases in Sri Lanka.²⁷⁷ This was based on the arguments that were closely related to the accepted points of investment of digital databases and which could be instituted in the Sri Lankan investment culture that focuses on development needs.

This thesis presented its final arguments in favour of *sui generis* right protection²⁷⁸ for Sri Lankan digital databases. However, since the thesis emphasises a bundle of protection mechanisms for the digital databases, other mechanisms such as copyright, contract, unfair competition, misappropriation

²⁷⁵ Central Bank of Sri Lanka, 'Annual Report 2012' (2013) CBSL (Internet) at ch 1 Economic, Price and Financial System Stability, Outlook and Policies <http://www.cbsl.gov.lk/htm/english/10_pub/pub.html> accessed 22 June 2013; See Chapter 1 at 1.1. Background.

²⁷⁶ Central Bank of Sri Lanka, 'Recent Economic Developments, Highlights of 2011 and Prospects for 2012' (2012) CBSL (Internet) at 23 <http://www.cbsl.gov.lk/htm/english/10_pub/pub.html> accessed 22 June 2013.

²⁷⁷ See Chapter 1 at See Chapter 1 at 1.6.2. Link between protection and investment.

²⁷⁸ See Chapter 6.

and patent protection should also be considered in formulating a regulation under the *sui generis* right protection. The law based on the pertinent legislation of EU member states emphasises the insufficiency of copyright protection in order to protect investment in making databases. Therefore, the Database Directive²⁷⁹ was aimed at establishing a database copyright law across the EU and creating a new *sui generis* right. It has also been observed that the said right contains “many copyright-style features but a much shorter term of protection that intended to protect the position of makers of databases against the misappropriation of the results of their financial and professional investment in database contents”.²⁸⁰

The *sui generis* right protects the investment²⁸¹ and addresses every aspect of the investments in digital databases such as qualitative or quantitative substantial investment of human, technical, financial or other resources in the collection, verification, organization or presentation of the digital databases.²⁸² These are the benefits that investors are expecting from a protection mechanism. Thus, the *sui generis* right protection effectively protects the

²⁷⁹ Council Directive 96/9 EC (OJ L 077/20).

²⁸⁰ Commission of the European Communities, ‘First Evaluation of Directive 96/9/EC on the Legal Protection of Databases’ (2005) DG Internal Market and Services Working Paper 12/12/2005, at 6, 25.

²⁸¹ Council Directive 96/9 EC (OJ L 077/20), recitals 7, 39, 40.

²⁸² Council Directive 96/9 EC (OJ L 077/20), art. 7(1); *British Horseracing Board Ltd and Others v William Hill Organization Ltd*, ECJ case C-203/02, 9 Nov. 2004 (England); *Fixtures Marketing Ltd v Organismos prognostikon agonon podosfairou AE*, ECJ case C-444/02, 09 Nov. 2004 (Greece); *Fixtures Marketing Ltd v. Oy Veikkaus Ab*, ECJ case C-45/02, 09 Nov. 2004 (Finland); and *Fixtures Marketing Ltd. v. Svenska Spel AB*, ECJ case C-338/02, 09 Nov. 2004 (Sweden).

quantitative and qualitative investments²⁸³ and opens the possibility for a mix and match approach with other new and existing protection systems.²⁸⁴

The ultimate result of this mechanism will be to iron out issues with the laws pertaining to the protection of digital databases and attract investment. It will further address the issues concerning the rights and duties of the digital database users and authors. Since digital database protection is a new concept in the Sri Lankan legal regime, this research has presented a set of guidelines to law-makers, policy-makers, judges and lawyers in the field of information technology law in Sri Lanka and such guidelines would be of paramount importance for improving the information technology law in the South Asian Region. The concept of unfair competition and misappropriation laws relating to information technology law are to be introduced to the Sri Lankan legal system. The proposed system originates in the experience of developing countries in the South Asian Region and it reflects the needs of developing nations in the digital era. This research provides policy direction for those who wish to explore the possibility of instituting a system of database protection in a developing country.

²⁸³ *Football Dataco Ltd and others v Sportradar GmbH and another* (Case C-173/11) before the Court of Justice (Third Chamber) [2013] 1 CMLR 29 at para 47; Council Directive 96/9 EC (OJ L 077/20), art. 7; Copyright and Rights in Databases Regulations 1997, SI1997/3032, reg. 13 (1).

²⁸⁴ Council Directive 96/9 EC (OJ L 077/20), art. 13.

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THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 57 (2), 66 and 100a thereof,

Having regard to the proposal from the Commission (1),

Having regard to the opinion of the Economic and Social Committee (2),

Acting in accordance with the procedure laid down in Article 189b of the Treaty (3),

(1) Whereas databases are at present not sufficiently protected in all Member States by existing legislation; whereas such protection, where it exists, has different attributes;

(2) Whereas such differences in the legal protection of databases offered by the legislation of the Member States have direct negative effects on the functioning of the internal market as regards databases and in particular on the freedom of natural and legal persons to provide on-line database goods and services on the basis of harmonized legal arrangements throughout the Community; whereas such differences could well become more pronounced as Member States introduce new legislation in this field, which is now taking on an increasingly international dimension;

(3) Whereas existing differences distorting the functioning of the internal market need to be removed and new ones prevented from arising, while differences not adversely affecting the functioning of the internal market or the development of an information market within the Community need not be removed or prevented from arising;

(4) Whereas copyright protection for databases exists in varying forms in the Member States according to legislation or case-law, and whereas, if differences in legislation in the scope and conditions of protection remain between the Member States, such unharmonized intellectual property rights can have the effect of preventing the free movement of goods or services within the Community;

(5) Whereas copyright remains an appropriate form of exclusive right for authors who have created databases;

(6) Whereas, nevertheless, in the absence of a harmonized system of unfair-competition legislation or of case-law, other measures are required in addition to prevent the unauthorized extraction and/or re-utilization of the contents of a database;

(7) Whereas the making of databases requires the investment of considerable human, technical and financial resources while such databases can be copied or accessed at a fraction of the cost needed to design them independently;

(8) Whereas the unauthorized extraction and/or re-utilization of the contents of a database constitute acts which can have serious economic and technical consequences;

(9) Whereas databases are a vital tool in the development of an information market within the Community; whereas this tool will also be of use in many other fields;

(10) Whereas the exponential growth, in the Community and worldwide, in the amount of information generated and processed annually in all sectors of commerce and industry calls for investment in all the Member States in advanced information processing systems;

(11) Whereas there is at present a very great imbalance in the level of investment in the database sector both as between the Member States and between the Community and the world's largest database-producing third countries;

(12) Whereas such an investment in modern information storage and processing systems will not take place within the Community unless a stable and uniform legal protection regime is introduced for the protection of the rights of makers of databases;

(13) Whereas this Directive protects collections, sometimes called 'compilations', of works, data or other materials which are arranged, stored and accessed by means which include electronic, electromagnetic or electro-optical processes or analogous processes;

(14) Whereas protection under this Directive should be extended to cover non-electronic databases;

(15) Whereas the criteria used to determine whether a database should be protected by copyright should be defined to the fact that the selection or the arrangement of the contents of the database is the author's own intellectual creation; whereas such protection should cover the structure of the database;

(16) Whereas no criterion other than originality in the sense of the author's intellectual creation should be applied to determine the eligibility of the database for copyright protection, and in particular no aesthetic or qualitative criteria should be applied;

(17) Whereas the term 'database' should be understood to include literary, artistic, musical or other collections of works or collections of other material such as texts, sound, images, numbers, facts, and data; whereas it should cover collections of independent works, data or other materials which are systematically or methodically arranged and can be individually accessed; whereas this means that a recording or an audiovisual, cinematographic, literary or musical work as such does not fall within the scope of this Directive;

(18) Whereas this Directive is without prejudice to the freedom of authors to decide whether, or in what manner, they will allow their works to be included in a database, in particular whether or not the authorization given is exclusive; whereas the protection of

databases by the sui generis right is without prejudice to existing rights over their contents, and whereas in particular where an author or the holder of a related right permits some of his works or subject matter to be included in a database pursuant to a non-exclusive agreement, a third party may make use of those works or subject matter subject to the required consent of the author or of the holder of the related right without the sui generis right of the maker of the database being invoked to prevent him doing so, on condition that those works or subject matter are neither extracted from the database nor re-utilized on the basis thereof;

(19) Whereas, as a rule, the compilation of several recordings of musical performances on a CD does not come within the scope of this Directive, both because, as a compilation, it does not meet the conditions for copyright protection and because it does not represent a substantial enough investment to be eligible under the sui generis right;

(20) Whereas protection under this Directive may also apply to the materials necessary for the operation or consultation of certain databases such as thesaurus and indexation systems;

(21) Whereas the protection provided for in this Directive relates to databases in which works, data or other materials have been arranged systematically or methodically; whereas it is not necessary for those materials to have been physically stored in an organized manner;

(22) Whereas electronic databases within the meaning of this Directive may also include devices such as CD-ROM and CD-i;

(23) Whereas the term 'database' should not be taken to extend to computer programs used in the making or operation of a database, which are protected by Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs (4);

(24) Whereas the rental and lending of databases in the field of copyright and related rights are governed exclusively by Council Directive 92/100/EEC of 19 November 1992 on rental right and lending right and on certain rights related to copyright in the field of intellectual property (5);

(25) Whereas the term of copyright is already governed by Council Directive 93/98/EEC of 29 October 1993 harmonizing the term of protection of copyright and certain related rights (6);

(26) Whereas works protected by copyright and subject matter protected by related rights, which are incorporated into a database, remain nevertheless protected by the respective exclusive rights and may not be incorporated into, or extracted from, the database without the permission of the rightholder or his successors in title;

(27) Whereas copyright in such works and related rights in subject matter thus incorporated into a database are in no way affected by the existence of a separate right in the selection or arrangement of these works and subject matter in a database;

(28) Whereas the moral rights of the natural person who created the database belong to the author and should be exercised according to the legislation of the Member States and the provisions of the Berne Convention for the Protection of Literary and Artistic Works; whereas such moral rights remain outside the scope of this Directive;

(29) Whereas the arrangements applicable to databases created by employees are left to the discretion of the Member States; whereas, therefore nothing in this Directive prevents Member States from stipulating in their legislation that where a database is created by an employee in the execution of his duties or following the instructions given by his employer, the employer exclusively shall be entitled to exercise all economic rights in the database so created, unless otherwise provided by contract;

(30) Whereas the author's exclusive rights should include the right to determine the way in which his work is exploited and by whom, and in particular to control the distribution of his work to unauthorized persons;

(31) Whereas the copyright protection of databases includes making databases available by means other than the distribution of copies;

(32) Whereas Member States are required to ensure that their national provisions are at least materially equivalent in the case of such acts subject to restrictions as are provided for by this Directive;

(33) Whereas the question of exhaustion of the right of distribution does not arise in the case of on-line databases, which come within the field of provision of services; whereas this also applies with regard to a material copy of such a database made by the user of such a service with the consent of the rightholder; whereas, unlike CD-ROM or CD-i, where the intellectual property is incorporated in a material medium, namely an item of goods, every on-line service is in fact an act which will have to be subject to authorization where the copyright so provides;

(34) Whereas, nevertheless, once the rightholder has chosen to make available a copy of the database to a user, whether by an on-line service or by other means of distribution, that lawful user must be able to access and use the database for the purposes and in the way set out in the agreement with the rightholder, even if such access and use necessitate performance of otherwise restricted acts;

(35) Whereas a list should be drawn up of exceptions to restricted acts, taking into account the fact that copyright as covered by this Directive applies only to the selection or arrangements of the contents of a database; whereas Member States should be given the option of providing for such exceptions in certain cases; whereas, however, this option should be exercised in accordance with the Berne Convention and to the extent that the exceptions relate to the structure of the database; whereas a distinction should be drawn between exceptions for private use and exceptions for reproduction for private purposes, which concerns provisions under national legislation of some Member States on levies on blank media or recording equipment;

(36) Whereas the term 'scientific research' within the meaning of this Directive covers both the natural sciences and the human sciences;

(37) Whereas Article 10 (1) of the Berne Convention is not affected by this Directive;

(38) Whereas the increasing use of digital recording technology exposes the database maker to the risk that the contents of his database may be copied and rearranged electronically, without his authorization, to produce a database of identical content which, however, does not infringe any copyright in the arrangement of his database;

(39) Whereas, in addition to aiming to protect the copyright in the original selection or arrangement of the contents of a database, this Directive seeks to safeguard the position of makers of databases against misappropriation of the results of the financial and professional investment made in obtaining and collection the contents by protecting the whole or substantial parts of a database against certain acts by a user or competitor;

(40) Whereas the object of this sui generis right is to ensure protection of any investment in obtaining, verifying or presenting the contents of a database for the limited duration of the right; whereas such investment may consist in the deployment of financial resources and/or the expending of time, effort and energy;

(41) Whereas the objective of the sui generis right is to give the maker of a database the option of preventing the unauthorized extraction and/or re-utilization of all or a substantial part of the contents of that database; whereas the maker of a database is the person who takes the initiative and the risk of investing; whereas this excludes subcontractors in particular from the definition of maker;

(42) Whereas the special right to prevent unauthorized extraction and/or re-utilization relates to acts by the user which go beyond his legitimate rights and thereby harm the investment; whereas the right to prohibit extraction and/or re-utilization of all or a substantial part of the contents relates not only to the manufacture of a parasitical competing product but also to any user who, through his acts, causes significant detriment, evaluated qualitatively or quantitatively, to the investment;

(43) Whereas, in the case of on-line transmission, the right to prohibit re-utilization is not exhausted either as regards the database or as regards a material copy of the database or of part thereof made by the addressee of the transmission with the consent of the rightholder;

(44) Whereas, when on-screen display of the contents of a database necessitates the permanent or temporary transfer of all or a substantial part of such contents to another medium, that act should be subject to authorization by the rightholder;

(45) Whereas the right to prevent unauthorized extraction and/or re-utilization does not in any way constitute an extension of copyright protection to mere facts or data;

(46) Whereas the existence of a right to prevent the unauthorized extraction and/or re-utilization of the whole or a substantial part of works, data or materials from a database should not give rise to the creation of a new right in the works, data or materials themselves;

(47) Whereas, in the interests of competition between suppliers of information products and services, protection by the sui generis right must not be afforded in such a way as to facilitate abuses of a dominant position, in particular as regards the creation and distribution of new products and services which have an intellectual, documentary, technical, economic or commercial added value; whereas, therefore, the provisions of this Directive are without prejudice to the application of Community or national competition rules;

(48) Whereas the objective of this Directive, which is to afford an appropriate and uniform level of protection of databases as a means to secure the remuneration of the maker of the database, is different from the aim of Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data (7),

which is to guarantee free circulation of personal data on the basis of harmonized rules designed to protect fundamental rights, notably the right to privacy which is recognized in Article 8 of the European Convention for the Protection of Human Rights and Fundamental Freedoms; whereas the provisions of this Directive are without prejudice to data protection legislation;

(49) Whereas, notwithstanding the right to prevent extraction and/or re-utilization of all or a substantial part of a database, it should be laid down that the maker of a database or rightholder may not prevent a lawful user of the database from extracting and re-utilizing insubstantial parts; whereas, however, that user may not unreasonably prejudice either the legitimate interests of the holder of the sui generis right or the holder of copyright or a related right in respect of the works or subject matter contained in the database;

(50) Whereas the Member States should be given the option of providing for exceptions to the right to prevent the unauthorized extraction and/or re-utilization of a substantial part of the contents of a database in the case of extraction for private purposes, for the purposes of illustration for teaching or scientific research, or where extraction and/or re-utilization are/is carried out in the interests of public security or for the purposes of an administrative or judicial procedure; whereas such operations must not prejudice the exclusive rights of the maker to exploit the database and their purpose must not be commercial;

(51) Whereas the Member States, where they avail themselves of the option to permit a lawful user of a database to extract a substantial part of the contents for the purposes of illustration for teaching or scientific research, may limit that permission to certain categories of teaching or scientific research institution;

(52) Whereas those Member States which have specific rules providing for a right comparable to the sui generis right provided for in this Directive should be permitted to retain, as far as the new right is concerned, the exceptions traditionally specified by such rules;

(53) Whereas the burden of proof regarding the date of completion of the making of a database lies with the maker of the database;

(54) Whereas the burden of proof that the criteria exist for concluding that a substantial modification of the contents of a database is to be regarded as a substantial new investment lies with the maker of the database resulting from such investment;

(55) Whereas a substantial new investment involving a new term of protection may include a substantial verification of the contents of the database;

(56) Whereas the right to prevent unauthorized extraction and/or re-utilization in respect of a database should apply to databases whose makers are nationals or habitual residents of third countries or to those produced by legal persons not established in a Member State, within the meaning of the Treaty, only if such third countries offer comparable protection to databases produced by nationals of a Member State or persons who have their habitual residence in the territory of the Community;

(57) Whereas, in addition to remedies provided under the legislation of the Member States for infringements of copyright or other rights, Member States should provide for appropriate remedies against unauthorized extraction and/or re-utilization of the contents of a database;

(58) Whereas, in addition to the protection given under this Directive to the structure of the database by copyright, and to its contents against unauthorized extraction and/or re-utilization under the sui generis right, other legal provisions in the Member States relevant to the supply of database goods and services continue to apply;

(59) Whereas this Directive is without prejudice to the application to databases composed of audiovisual works of any rules recognized by a Member State's legislation concerning the broadcasting of audiovisual programmes;

(60) Whereas some Member States currently protect under copyright arrangements databases which do not meet the criteria for eligibility for copyright protection laid down in this Directive; whereas, even if the databases concerned are eligible for protection under the right laid down in this Directive to prevent unauthorized extraction and/or re-utilization of their contents, the term of protection under that right is considerably shorter than that which they enjoy under the national arrangements currently in force; whereas harmonization of the criteria for determining whether a database is to be protected by copyright may not have the effect of reducing the term of protection currently enjoyed by the rightholders concerned; whereas a derogation should be laid down to that effect; whereas the effects of such derogation must be confined to the territories of the Member States concerned,

HAVE ADOPTED THIS DIRECTIVE:

CHAPTER I

SCOPE

Article 1

Scope

1. This Directive concerns the legal protection of databases in any form.
2. For the purposes of this Directive, 'database' shall mean a collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means.
3. Protection under this Directive shall not apply to computer programs used in the making or operation of databases accessible by electronic means.

Article 2

Limitations on the scope

This Directive shall apply without prejudice to Community provisions relating to:

- (a) the legal protection of computer programs;
- (b) rental right, lending right and certain rights related to copyright in the field of intellectual property;
- (c) the term of protection of copyright and certain related rights.

CHAPTER II

COPYRIGHT

Article 3

Object of protection

1. In accordance with this Directive, databases which, by reason of the selection or arrangement of their contents, constitute the author's own intellectual creation shall be protected as such by copyright. No other criteria shall be applied to determine their eligibility for that protection.

2. The copyright protection of databases provided for by this Directive shall not extend to their contents and shall be without prejudice to any rights subsisting in those contents themselves.

Article 4

Database authorship

1. The author of a database shall be the natural person or group of natural persons who created the base or, where the legislation of the Member States so permits, the legal person designated as the rightholder by that legislation.

2. Where collective works are recognized by the legislation of a Member State, the economic rights shall be owned by the person holding the copyright.

3. In respect of a database created by a group of natural persons jointly, the exclusive rights shall be owned jointly.

Article 5

Restricted acts

In respect of the expression of the database which is protectable by copyright, the author of a database shall have the exclusive right to carry out or to authorize:

(a) temporary or permanent reproduction by any means and in any form, in whole or in part;

(b) translation, adaptation, arrangement and any other alteration;

(c) any form of distribution to the public of the database or of copies thereof. The first sale in the Community of a copy of the database by the rightholder or with his consent shall exhaust the right to control resale of that copy within the Community;

(d) any communication, display or performance to the public;

(e) any reproduction, distribution, communication, display or performance to the public of the results of the acts referred to in (b).

Article 6

Exceptions to restricted acts

1. The performance by the lawful user of a database or of a copy thereof of any of the acts listed in Article 5 which is necessary for the purposes of access to the contents of the databases and normal use of the contents by the lawful user shall not require the authorization of the author of the database. Where the lawful user is authorized to use only part of the database, this provision shall apply only to that part.
2. Member States shall have the option of providing for limitations on the rights set out in Article 5 in the following cases:
 - (a) in the case of reproduction for private purposes of a non-electronic database;
 - (b) where there is use for the sole purpose of illustration for teaching or scientific research, as long as the source is indicated and to the extent justified by the non-commercial purpose to be achieved;
 - (c) where there is use for the purposes of public security or for the purposes of an administrative or judicial procedure;
 - (d) where other exceptions to copyright which are traditionally authorized under national law are involved, without prejudice to points (a), (b) and (c).
3. In accordance with the Berne Convention for the protection of Literary and Artistic Works, this Article may not be interpreted in such a way as to allow its application to be used in a manner which unreasonably prejudices the rightholder's legitimate interests or conflicts with normal exploitation of the database.

CHAPTER III

SUI GENERIS RIGHT

Article 7

Object of protection

1. Member States shall provide for a right for the maker of a database which shows that there has been qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents to prevent extraction and/or re-utilization of the whole or of a substantial part, evaluated qualitatively and/or quantitatively, of the contents of that database.
2. For the purposes of this Chapter:
 - (a) 'extraction` shall mean the permanent or temporary transfer of all or a substantial part of the contents of a database to another medium by any means or in any form;
 - (b) 're-utilization` shall mean any form of making available to the public all or a substantial part of the contents of a database by the distribution of copies, by renting, by on-line or other forms of transmission. The first sale of a copy of a database within the Community by the rightholder or with his consent shall exhaust the right to control resale of that copy within the Community;

Public lending is not an act of extraction or re-utilization.

3. The right referred to in paragraph 1 may be transferred, assigned or granted under contractual licence.

4. The right provided for in paragraph 1 shall apply irrespective of the eligibility of that database for protection by copyright or by other rights. Moreover, it shall apply irrespective of eligibility of the contents of that database for protection by copyright or by other rights. Protection of databases under the right provided for in paragraph 1 shall be without prejudice to rights existing in respect of their contents.

5. The repeated and systematic extraction and/or re-utilization of insubstantial parts of the contents of the database implying acts which conflict with a normal exploitation of that database or which unreasonably prejudice the legitimate interests of the maker of the database shall not be permitted.

Article 8

Rights and obligations of lawful users

1. The maker of a database which is made available to the public in whatever manner may not prevent a lawful user of the database from extracting and/or re-utilizing insubstantial parts of its contents, evaluated qualitatively and/or quantitatively, for any purposes whatsoever. Where the lawful user is authorized to extract and/or re-utilize only part of the database, this paragraph shall apply only to that part.

2. A lawful user of a database which is made available to the public in whatever manner may not perform acts which conflict with normal exploitation of the database or unreasonably prejudice the legitimate interests of the maker of the database.

3. A lawful user of a database which is made available to the public in any manner may not cause prejudice to the holder of a copyright or related right in respect of the works or subject matter contained in the database.

Article 9

Exceptions to the sui generis right

Member States may stipulate that lawful users of a database which is made available to the public in whatever manner may, without the authorization of its maker, extract or re-utilize a substantial part of its contents:

(a) in the case of extraction for private purposes of the contents of a non-electronic database;

(b) in the case of extraction for the purposes of illustration for teaching or scientific research, as long as the source is indicated and to the extent justified by the non-commercial purpose to be achieved;

(c) in the case of extraction and/or re-utilization for the purposes of public security or an administrative or judicial procedure.

Article 10

Term of protection

1. The right provided for in Article 7 shall run from the date of completion of the making of the database. It shall expire fifteen years from the first of January of the year following the date of completion.
2. In the case of a database which is made available to the public in whatever manner before expiry of the period provided for in paragraph 1, the term of protection by that right shall expire fifteen years from the first of January of the year following the date when the database was first made available to the public.
3. Any substantial change, evaluated qualitatively or quantitatively, to the contents of a database, including any substantial change resulting from the accumulation of successive additions, deletions or alterations, which would result in the database being considered to be a substantial new investment, evaluated qualitatively or quantitatively, shall qualify the database resulting from that investment for its own term of protection.

Article 11

Beneficiaries of protection under the sui generis right

1. The right provided for in Article 7 shall apply to database whose makers or rightholders are nationals of a Member State or who have their habitual residence in the territory of the Community.
2. Paragraph 1 shall also apply to companies and firms formed in accordance with the law of a Member State and having their registered office, central administration or principal place of business within the Community; however, where such a company or firm has only its registered office in the territory of the Community, its operations must be genuinely linked on an ongoing basis with the economy of a Member State.
3. Agreements extending the right provided for in Article 7 to databases made in third countries and falling outside the provisions of paragraphs 1 and 2 shall be concluded by the Council acting on a proposal from the Commission. The term of any protection extended to databases by virtue of that procedure shall not exceed that available pursuant to Article 10.

CHAPTER IV

COMMON PROVISIONS

Article 12

Remedies

Member States shall provide appropriate remedies in respect of infringements of the rights provided for in this Directive.

Article 13

Continued application of other legal provisions

This Directive shall be without prejudice to provisions concerning in particular copyright, rights related to copyright or any other rights or obligations subsisting in the data, works or other materials incorporated into a database, patent rights, trade marks, design rights, the protection of national treasures, laws on restrictive practices and unfair competition, trade secrets, security, confidentiality, data protection and privacy, access to public documents, and the law of contract.

Article 14

Application over time

1. Protection pursuant to this Directive as regards copyright shall also be available in respect of databases created prior to the date referred to in Article 16 (1) which on that date fulfil the requirements laid down in this Directive as regards copyright protection of databases.
2. Notwithstanding paragraph 1, where a database protected under copyright arrangements in a Member State on the date of publication of this Directive does not fulfil the eligibility criteria for copyright protection laid down in Article 3 (1), this Directive shall not result in any curtailing in that Member State of the remaining term of protection afforded under those arrangements.
3. Protection pursuant to the provisions of this Directive as regards the right provided for in Article 7 shall also be available in respect of databases the making of which was completed not more than fifteen years prior to the date referred to in Article 16 (1) and which on that date fulfil the requirements laid down in Article 7.
4. The protection provided for in paragraphs 1 and 3 shall be without prejudice to any acts concluded and rights acquired before the date referred to in those paragraphs.
5. In the case of a database the making of which was completed not more than fifteen years prior to the date referred to in Article 16 (1), the term of protection by the right provided for in Article 7 shall expire fifteen years from the first of January following that date.

Article 15

Binding nature of certain provisions

Any contractual provision contrary to Articles 6 (1) and 8 shall be null and void.

Article 16

Final provisions

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive before 1 January 1998.

When Member States adopt these provisions, they shall contain a reference to this Directive or shall be accompanied by such reference on the occasion of their official

publication. The methods of making such reference shall be laid down by Member States.

2. Member States shall communicate to the Commission the text of the provisions of domestic law which they adopt in the field governed by this Directive.

3. Not later than at the end of the third year after the date referred to in paragraph 1, and every three years thereafter, the Commission shall submit to the European Parliament, the Council and the Economic and Social Committee a report on the application of this Directive, in which, inter alia, on the basis of specific information supplied by the Member States, it shall examine in particular the application of the sui generis right, including Articles 8 and 9, and shall verify especially whether the application of this right has led to abuse of a dominant position or other interference with free competition which would justify appropriate measures being taken, including the establishment of non-voluntary licensing arrangements. Where necessary, it shall submit proposals for adjustment of this Directive in line with developments in the area of databases.

Article 17

This Directive is addressed to the Member States.

Done at Strasbourg, 11 March 1996.

For the European Parliament

The President

K. HÄNSCH

For the Council

The President

L. DINI

(1) OJ No C 156, 23. 6. 1992, p. 4 and

OJ No C 308, 15. 11. 1993, p. 1.

(2) OJ No C 19, 25. 1. 1993, p. 3.

(3) Opinion of the European Parliament of 23 June 1993 (OJ No C 194, 19. 7. 1993, p. 144), Common Position of the Council of 10 July 1995 (OJ No C 288, 30. 10. 1995, p. 14), Decision of the European Parliament of 14 December 1995 (OJ No C 17, 22 1. 1996) and Council Decision of 26 February 1996.

(4) OJ No L 122, 17. 5. 1991, p. 42. Directive as last amended by Directive 93/98/EEC (OJ No L 290, 24. 11. 1993, p. 9.)

(5) OJ No L 346, 27. 11. 1992, p. 61.

(6) OJ No L 290, 24. 11. 1993, p. 9.

(7) OJ No L 281, 23. 11. 1995, p. 31.

Intellectual Property Act, No. 36 of 2003 Sri Lanka



**PARLIAMENT OF THE DEMOCRATIC
SOCIALIST REPUBLIC OF
SRI LANKA**

**INTELLECTUAL PROPERTY
ACT, No. 36 OF 2003**

[Certified on 12th November, 2003]

Printed on the Order of Government

Published as a Supplement to Part II of the **Gazette of the Democratic
Socialist Republic of Sri Lanka** of November 14, 2003

PRINTED AT THE DEPARTMENT OF GOVERNMENT PRINTING, SRI LANKA

TO BE PURCHASED AT THE GOVERNMENT PUBLICATIONS BUREAU, COLOMBO 1

Price : Rs. 80.00

Postage : Rs. 27.00

[Certified on 12th November, 2003]

L.D.—O. 54/2002.

AN ACT TO PROVIDE FOR THE LAW RELATING TO INTELLECTUAL PROPERTY AND FOR AN EFFICIENT PROCEDURE FOR THE REGISTRATION, CONTROL AND ADMINISTRATION THERE OF ; TO AMEND THE CUSTOMS ORDINANCE (CHAPTER 235) AND THE HIGH COURT OF THE PROVINCES (SPECIAL) PROVISIONS ACT, No. 10 OF 1996 ; AND TO PROVIDE FOR MATTERS CONNECTED THEREWITH OR INCIDENTAL THERETO

BE it enacted by the Parliament of the Democratic Socialist Republic of Sri Lanka as follows :—

1. This Act may be cited as the Intellectual Property Act, No. 36 of 2003. Short title.

PART I

ADMINISTRATION

2. (1) There shall be a person to be or to act as the Director-General of Intellectual Property of Sri Lanka (hereinafter referred to as the “Director-General”). Appointment and powers of the Director-General.

(2) The Director-General shall—

- (a) be vested with the power of implementation of the provisions of this Act, the control and superintendence of the registration and administration of Industrial Designs, Patents, Marks and of any other matter as provided by the Act, and the supervision and control of all persons appointed for, or engaged in, the implementation of the provisions of this Act ; and
- (b) take all necessary steps to promote and encourage national awareness of the subject of Intellectual Property including copyright and related rights by organisation of exhibitions, contests, seminars and publications and by promoting and encouraging the establishment and proper functioning of organisations or societies to protect and administer copyright and related rights under Part II of the Act.

(3) The Director-General shall comply with the general policy of the government with respect to subject of intellectual property and with any general or special directions issued by the Minister in relation to such policy.

Director and
Deputy Directors.

3. (1) There may from time to time be appointed a fit and proper person or persons, to be or to act as Director of Intellectual Property and such other Deputy Directors for the proper implementation and administration of the provisions of this Act.

(2) Any person so appointed may exercise, perform and discharge any power, duty or function expressly conferred or imposed upon the Director or the Deputy directors, as the case may be, and may, subject to the directions of the Minister and under the authority and control of the Director-General, exercise, perform and discharge any powder, duty or function conferred or imposed upon the Director-General by or under this Act.

(3) There shall be appointed such other officers and servants as may be necessary for the administration of the Act.

Office and
maintenance of
registers.

4. (1) There shall be an office called the National Intellectual Property Office of Sri Lanka (hereinafter referred to as the "Office"). Such office shall be the sole office in Sri Lanka for the registration and administration of Industrial designs, patents, marks and any other matter as provided by the Act.

(2) All registers required to be kept and maintained under the provisions of this Act shall be kept and maintained under the supervision of the Director-General at the Office and such registers shall be the only legally recognized registers in Sri Lanka for the registration of industrial designs, patents, marks and any other matter as provided by the Act.

PART II

CHAPTER I

COPYRIGHT

5. For the purposes of this Part—

Interpretation.

“audiovisual work” means a work that consists of a series of related images which impart the impression of motion, with or without accompanying sounds, susceptible of being made visible, and where accompanied by sounds susceptible of being made audible ;

“author” means the physical person who has created the work ;

“broadcasting” means the communication of a work, a performance or a sound recording to the public by wireless transmission, including transmission by satellite ;

“collective work” means a work created by two or more physical persons at the initiative and under the direction of a physical person or legal entity, with the understanding that it will be disclosed by the latter person or entity under his or its own name and that the identity of the contributing physical persons will not be indicated ;

“communication to the public” means the transmission to the public by wire or without wire of the images or sounds, or both, of a work, a performance or a sound recording including the making available to the public of a work, performance or sound recording in such a way that members of the public may access them from a place and at a time individually chosen by them ;

“computer” means an electronic or similar device having information processing capabilities ;

“computer program” is a set of instructions expressed in words, codes, schemes or in any other form, which is capable, when incorporated in a medium that the computer can read, of causing a computer to perform or achieve a particular task or result ;

“economic rights” means the rights referred to in section 9 ;

“expression of folklore” means a group oriented and tradition based creation of groups or individuals reflecting the expectation of the community as an adequate expression of its cultural and social identity, its standards and values as transmitted orally, by imitation or by other means, including :

- (a) folktales, folk poetry, and folk riddles ;
- (b) folk songs and instrumental folk music ;
- (c) folk dances and folk plays ;
- (d) productions of folk arts in particular, drawings, paintings, carvings, sculptures, pottery, terracotta, mosaic, woodwork, metalware, jewellery, handicrafts, costumes, and indigenous textiles ;

“infringement” means an act that violated any right protected under this Part ;

“moral rights” means rights referred to in section 10 ;

“performers” means singers, musicians, and other persons who sing, deliver, declaim, play in, or otherwise perform, literary or artistic works or expressions of folklore ;

“photographic work” means the recording of light or other radiation on any medium on which an image is produced or from which an image may be produced, irrespective of the technique (chemical, electronic or other) by which such recording is made, a still picture extracted from an audiovisual work shall not be considered a “photographic work” but a part of the audiovisual work concerned ;

“producer” of an audiovisual work or a sound recording means the physical person or legal entity that undertakes the initiative and responsibility for the making of the audiovisual work or sound recording ;

“public display” means the showing of the original or a copy of a work—

- (a) directly ;
- (b) by means of a film, slide, television image or otherwise on screen ;
- (c) by means of any other device or process ; or
- (d) in the case of an audiovisual work, the showing of individual images nonsequentially at a place or places where persons outside the normal circle of a family and its closest social acquaintances are or can be present, irrespective of whether they are or can be present at the same place and time or at different places or times, and where the work can be displayed without communication to the public within the meaning of the definition of the expression “Communication to the Public”;

“public lending” means the transfer of the possession of the original or a copy of a work or a sound recording for a limited period of time for non-profit making purposes, by an institution, the services of which are available to the public, such as a public library or archives ;

“public performance” means—

- (a) in the case of a work other than an audiovisual work, the recitation, playing, dancing, acting or otherwise performing the work in public either directly or by means of any device or process ;
- (b) in the case of an audiovisual work, the showing of images in sequence or the making of accompanying sound audible in public ; and
- (c) in the case of a sound recording, making the recording sounds audible at a place or at places where persons outside the normal circle of the family and its closest acquaintances are or can be present, irrespective of whether they are or can be present at the same place and time, or at different places or times, and where the performance can be perceived without the need for communication to the public within the meaning of the definition of the expression “communication to the public” ;

“published” means a work or a sound recording—

- (a) copies of which have been made available to the public in a reasonable quantity for sale, rental, public lending or for transfer of the ownership or the possession of the copies ;
or
- (b) which has been made available to the public by means of an electronic system :

Provided that, in the case of a work, the making available to the public took place with the consent of the owner of the copyright, and in the case of a sound recording, with the consent of, the producer of the sound recording or his successor in title ;

“rental” means the transfer of the possession of the original or a copy of a work or sound recording for a limited period of time for profit making purposes ;

“reproduction” means the making of one or more copies of a work or sound recording in any material form, including any permanent or temporary storage of a work or sound recording in electronic form ;

“sound recording” means any exclusively aural fixation of the sounds of a performance or of other sounds, regardless of the method by which the sounds are fixed or the medium in which the sounds are embodied ; it does not include a fixation of sounds and images, such as the sounds incorporated in an audiovisual work ;

“work” means any literary, artistic or scientific work referred to in section 6 ;

“work of applied art” means an artistic creation with utilitarian functions or incorporated in a useful article, whether made by hand or produced on an industrial scale ;

“work of joint authorship” means a work to the creation of which two or more authors have contributed, provided the work does not qualify as “a collective work”.

6. (1) The following works shall be protected as literary, artistic or scientific work (hereinafter referred to as “works”) which are original intellectual creations in the literary, artistic and scientific domain, including and in particular—

Works protected.

- (a) books, pamphlets, articles, computer programs and other writings ;
- (b) speeches, lectures, addresses, sermons and other oral works ;

- (c) dramatic, dramatic-musical works, pantomimes, choreographic works and other works created for stage productions ;
- (d) stage production of works specified in paragraph (c) and expressions of folklore that are apt for such productions ;
- (e) musical works, with or without accompanying words ;
- (f) audiovisual works ;
- (g) works of architecture ;
- (h) works of drawing, painting, sculpture, engraving, litho-graphy, tapestry and other works of fine art ;
- (j) photographic works ;
- (k) works of applied art ;
- (l) illustrations, maps, plans, sketches and three dimensional works relative to geography, topography, architecture or science.

(2) The works specified in subsection (1) of this section shall be protected by the sole fact of their creation and irrespective of their mode or form of expression, as well as of their content, quality and purpose.

Derivative works.

7. (1) The following shall also be protected as works :—

- (a) translations, adaptations, arrangements and other transformations or modifications of works ; and
- (b) collections of works and collections of mere data (data bases), whether in machine readable or other form, provided that such collections are original by reason of the selection, co-ordination or arrangement of their contents.

(2) The protection of any work referred to in subsection (1) shall be without prejudice to any protection of a pre-existing work incorporated in, or utilized for, the making of such a work.

8. Notwithstanding the provisions of sections 6 and 7, no protection shall be extended under this Part —

Works not protected.

- (a) to any idea, procedure, system, method of operation, concept, principle, discovery or mere data, even if expressed, described, explained, illustrated or embodied in a work ;
- (b) to any official text of a legislative, administrative or legal nature, as well as any official translation thereof ;
- (c) to news of the day published, broadcast, or publicly communicated by any other means.

9. (1) Subject to the provisions of sections 11 to 13 the owner of copyright of a work shall have the exclusive right to carry out or to authorize the following acts in relation to the work —

Economic rights.

- (a) reproduction of the work ;
- (b) translation of the work ;
- (c) adaptation, arrangement or other transformation of the work ;
- (d) the public distribution of the original and each copy of the work by sale, rental, export or otherwise ;
- (e) rental of the original or a copy of an audiovisual work, a work embodied in a sound recording, a computer program, a data base or a musical work in the form of notation, irrespective of the ownership of the original or copy concerned ;

- (f) importation of copies of the work, (even where the imported copies were made with the authorization of the owner of the copyright) ;
- (g) public display of the original or a copy of the work ;
- (h) public performance of the work ;
- (j) broadcasting of the work ; and
- (k) other communication to the public of the work.

(2) The provisions of subsection (1) of this section shall apply to both the entire work and a substantial part thereof.

(3) The rights of rental in terms of paragraph (e) of subsection (1) shall not apply to rental of computer programs where the program itself is not the essential object of the rental.

(4) Notwithstanding the provisions of paragraph (d) of subsection (1), the owner of a work or a copy of a work lawfully made or any person authorized in that behalf by such owner, is entitled without the authority of the owner of the copyright, to sell or otherwise dispose of that copy.

Moral Rights.

10. (1) The author of a work shall independently of his economic rights and even where he is no longer the owner of those economic rights, have the following rights :—

- (a) to have his name indicated prominently on the copies and in connection with any public use of his work, as far as practicable ;
- (b) the right to use a pseudonym and not have his name indicated on the copies and in connection with any public use of his work ;
- (c) to object to any distortion, mutilation or other modification of, or other derogatory action in relation to, his work which would be prejudicial to his honour or reputation.

(2) No right mentioned in subsection (1) shall be transmissible during the life time of the author, however on the death of the author, the right to exercise any of those rights shall be transmissible by testamentary disposition or by operation of law.

(3) The author may waive any of the moral rights mentioned in subsection (1), provided that such a waiver is in writing and clearly specifies the right or rights waived and the circumstances to which the waiver applies :

Provided that where any waiver of the rights under paragraph (c) of subsection (1) specifies the nature and extent of the modification or other action in respect of which the right is waived, subsequent to the death of the author, the physical person or legal entity upon whom or which the moral rights have devolved shall have the right to waive the said rights.

11. (1) Notwithstanding the provisions of subsection (1) of section 9, the fair use of a work, including such use by reproduction in copies or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship or research, shall not be an infringement of copyright.

Fair use.

(2) The following factors shall be considered in determining whether the use made of a work in any particular case is fair use :—

- (a) the purpose and character of the use, including whether such use is of a commercial nature or is for non-profit educational purposes ;
- (b) the nature of the copyrighted work ;
- (c) the amount and substantiality of the portion used in relation to the copyrighted work as a whole ; and
- (d) the effect of the use upon the potential market for, or value of, the copyrighted work.

(3) The acts of fair use shall include the circumstances specified in section 12.

Act of fair use.

12. (1) Notwithstanding anything contained in paragraph (a) of subsection (1) of section 9 and subject to the provisions of subsection (2) of this section, the private reproduction of a published work in a single copy shall be permitted without the authorization of the owner of the copyright, where the reproduction is made by a physical person from a lawful copy of such work exclusively for his own personal purposes.

(2) The permission under subsection (1) of this section shall not be extended to the reproduction—

- (a) of a work of architecture in the form of a building or other constructions ;
- (b) in the form of reprography of the whole or a substantial part of a book or of a musical work in the form of notations ;
- (c) of the whole or a substantial part of a data base ;
- (d) of a computer program, except as provided in subsection (7) ; and
- (e) of any work, in case the reproduction would conflict with a normal exploitation of the work or would otherwise unreasonably prejudice the legitimate interests of the owner of the copyright.

(3) Notwithstanding the provisions of paragraph (a) of subsection (1) of section 9, the reproduction, in the form of a quotation, of a short part of a published work shall be permitted without authorization of the owner of copyright :

Provided that the reproduction is compatible with fair practice and does not exceed the extent justified by the purpose of such reproduction. The quotation shall be accompanied by an indication of the source and the name of the author, if his name appears in the work from which the quotation is taken.

(4) Notwithstanding the provisions of paragraph (a) of subsection (1) of section 9, the following acts shall be permitted without the authorization of the owner of the copyright :—

- (a) the reproduction of a short part of a published work for teaching purposes by way of illustration, in writing or sound or visual recordings, provided that the reproduction is compatible with fair practice and does not exceed the extent justified by the purpose of such reproduction;
- (b) the reprographic reproduction for face to face teaching in any educational institution the activities of which do not serve direct or indirect commercial gain, of published articles, other short works or short extracts of works, to the extent justified by the purpose, provided that the act of reproduction is an isolated one occurring, if repeated, on separate and unrelated occasions :

Provided however the source of the work reproduced and the name of the author shall be indicated as far as practicable on all copies made under this subsection.

(5) Notwithstanding the provisions of paragraph (a) of subsection (1) of section 9, any library or archives, whose activities do not serve any direct or indirect commercial gain may, without the authorization of the owner of copyright, make a single copy of the work by reprographic reproduction—

- (a) where the work reproduced is a published article, other short work or short extract of a work, and where the purpose of the reproduction is to satisfy the request of a physical person :

Provided that—

- (i) the library or archives is satisfied that the copy will be used solely for the purposes of study, scholarship or private research,

(ii) the act of reproduction is an isolated occurrence, occurring if repeated, on separate and unrelated occasions ;

(b) where the copy is made in order to preserve and, if necessary replace a copy, or to replace a copy which has been lost, destroyed or rendered unusable in the permanent collection of another similar library or archives :

Provided that it is not possible to obtain such a copy under reasonable conditions ; and

Provided further, that the act of reprographic reproduction is an isolated occurrence occurring if repeated, on separate and unrelated occasions.

(6) Notwithstanding the provisions of paragraphs (a), (h) and (j) of subsection (1) of section 9, and subject to the condition that the source and the name of the author is indicated as far as practicable, the following acts shall be permitted in respect of a work without the authorization of the owner of copyright—

(a) the reproduction in a newspaper or periodical, manner of broadcasting or other manner of communication to the public, of an article published in a newspaper or periodical on current economic, political or religious topics or a broadcast or communication relating to the same, and such permission shall not apply where the right to authorize reproduction, broadcasting or other communication to the public is expressly reserved on the copies, by the owner of copyright, or in connection with broadcasting or other communication to the public of the work ;

(b) for the purpose of reporting current events, the reproduction and the broadcasting or other communication to the public of short excerpts of a

work seen or heard in the course of such events, to the extent that it is justified by the purpose of such reproduction;

- (c) the reproduction in a newspaper or periodical, broadcasting or other manner of communication to the public, of a political speech, a lecture, address, sermon or other work of a similar nature delivered in public, or a speech delivered during legal proceedings, to the extent that it is justified by reason of the fact of providing current information.

(7) (a) Notwithstanding anything contained in paragraphs (a) and (c) of subsection (1) of section 9, reproduction in a single copy or the adaptation of a computer program by the lawful owner of a copy of that computer program, shall be permitted without the authorization of the owner of copyright provided that the copy or adaptation is necessary—

- (i) for use of the computer program with a computer for the purpose and extent for which the computer program has been obtained ;
- (ii) for archival purposes and for replacement of the lawfully owned copy of the computer program in the event that the said copy of the computer program is lost, destroyed or rendered unusable.

(b) No copy or adaptation of a computer program shall be used for any purpose other than those specified in paragraph (a), and any such copy or adaptation shall be destroyed in the event that continued possession of the copy of the computer program ceases to be lawful.

(8) Notwithstanding the provisions of paragraph (f) of subsection (1) of section 9, the importation of a copy of a work by a physical person for his own personal purposes shall be permitted without the authorization of the owner of copyright.

(9) Notwithstanding anything contained in paragraph (g) of subsection (1) of section 9, the public display of originals or copies of works shall be permitted without the authorization of the owner of copyright :

Provided that the display is made other than by means of a film, slide, television image or otherwise on screen or by means of any other device or process :

Provided further, the work has been published or the original or the copy displayed has been sold, given away or otherwise transferred to another person by the author or his successor in title.

(10) Notwithstanding anything contained in this Part, the following shall not be an infringement of copyright :-

- (a) the performance or display of a work for educational or teaching purposes by government or non profit educational institutions, in classrooms or similar places set aside for education :

Provided that, in the case of an audiovisual work, the performance or the display of individual images, is given by means of a lawfully made copy, or the person responsible for the performance did not know or had no reason to believe that the copy was not lawfully made.

- (b) the communication of a transmission embodying a performance or display of a work by the public reception of the transmission on a single receiving apparatus, of a kind commonly used in private homes, unless –
- (i) a direct charge is made to see or hear the transmission ; or
- (ii) the transmission thus received is further transmitted to the public.

13. (1) Subject to the provisions of subsections (2), (3), (4) and (5), the economic and moral rights shall be protected during the life time of the author and for a further period of seventy years from the date of his death.

Duration of
copyright.

(2) In the case of a work of joint authorship, the economic and moral rights shall be protected during the life of the last surviving author and for a further period of seventy years from the date of the death of the last surviving author.

(3) In the case of a collective work, other than a work of applied art, and in the case of an audiovisual work, the economic and moral rights shall be protected for seventy years from the date on which the work was first published, or failing publication within seventy years from the making of the work.

(4) In the case of a work published anonymously or under a pseudonym, the economic and moral rights shall be protected for seventy years from the date on which the work was first published :

Provided that, where the author's identity is revealed or is no longer in doubt before the expiration of the said period, the provisions of subsection (1) or subsection (2) shall apply, as the case may require.

(5) In the case of work of applied art, the economic and moral rights shall be protected for twenty-five years from the date of the making of the work.

(6) Every period provided for under the preceding subsections shall run to the end of the calendar year in which it would otherwise expire.

14. (1) Subject to the provisions of subsections (2), (3), (4) and (5), of this section, the author who created the work shall be the original owner of economic rights.

Original
ownership of
economic rights.

(2) In respect of a work of joint authorship, the co-authors shall be the original owners of the economic rights. If, however, a work of joint authorship consists of parts that can be used separately and the author of each part can be identified, the author of each part shall be the original owner of the economic rights in respect of the part that he has created.

(3) In respect of a collective work, the physical person or legal entity at the initiative, and under the direction, of whom or which the work has been created shall be the original owner of the economic rights.

(4) In respect of a work created by an author employed by a physical person or legal entity in the course of his employment, the original owner of the economic rights shall, unless provided otherwise by way of a contract, be the employer. If the work is created pursuant to a commission, the original owner of economic rights shall be, unless otherwise provided in a contract, the person who commissioned the work.

(5) In respect of an audiovisual work, the original owner of the economic rights shall be the producer, unless otherwise provided in a contract. The co-authors of the audiovisual work and the authors of the pre-existing works, included in, or adapted for, the making of the audiovisual work shall, however, maintain their economic rights in their contributions or pre-existing works, respectively, to the extent that those contributions or pre existing works can be the subject of acts covered by their economic rights separately from the audiovisual work.

Presumption of authorship and of representation of the author.

15. (1) The physical person whose name is indicated as the author on a work in the usual manner shall, in the absence of proof to the contrary, be presumed to be the author of the work. The provisions of this section shall be applicable even if the name is a pseudonym, where the pseudonym leaves no doubt as to the identity of the author.

(2) The physical person or legal entity whose name appears on an audio-visual work shall, in the absence of proof to the contrary, be presumed to be the producer of the said work.

16. (1) The owner of a copyright may -

Assignment or
licence of
author's rights.

- (a) grant licence to a physical person or legal entity to carry out all or any of the acts relating to the economic rights referred to in section 9 ;
- (b) assign or transfer in whole or any part of the economic rights referred to in section 9.

(2) Any assignment or transfer of an economic right, and any licence to do such an act subject to authorization by the owner of the copyright, shall be in writing signed by the assignor and the assignee, transferor and the transferee or by the licensor and the licensee, as the case may be.

(3) An assignment or transfer in whole or in part of any economic right, or a licence to do an act subject to authorization by the owner of copyright, shall not include or be deemed to include the assignment or transfer or licence in respect of any other rights not expressly referred to therein.

CHAPTER II

RELATED RIGHTS

[PROTECTION OF RIGHTS OF PERFORMERS, PRODUCERS OF SOUND
RECORDING AND BROADCASTING ORGANIZATION]

17. (1) Subject to the provisions of section 21, a performer shall have exclusive right to carry out or to authorize any of the following acts :—

Rights requiring
authorization of
performers.

- (a) the broadcasting or other communication to the public of his performance or a substantial part thereof, except where the broadcasting, or the other communication—
 - (i) is made from a fixation of the performance, other than a fixation made in terms of section 21 ; or

(ii) is a re-broadcasting, made or authorized by the organisation initially broadcasting the performance or substantial part thereof ;

(b) the fixation of his unfixed performance or substantial part thereof ;

(c) the reproduction of a fixation of his performance or substantial part thereof.

(2) Once the performer has authorized the incorporation of his performance in a audiovisual fixation, the provisions of subsection (1) shall have no further application.

(3) Nothing in this section shall be construed to deprive performers of the right to enter into contracts in respect of their performances on terms and conditions more favourable to them.

(4) The rights under this section shall be protected from the moment the performance takes place until the end of the fiftieth calendar year following the year in which the performance takes place.

Rights of
producers of
sound recordings.

18. (1) Subject to the provisions of section 21, a producer of a sound recording shall have the exclusive right to carry out or to authorise any of the following acts :—

(a) the direct or indirect reproduction of the sound recording or substantial part thereof ;

(b) the importation of copies of the sound recording or a substantial part thereof even where such imported copies were made with the authorisation of the producer ;

(c) the adaptation or other transformation of the sound recording or a substantial part thereof ;

(d) the rental of a copy of the sound recording or a substantial part thereof, irrespective of the ownership of the copy rented ;

- (e) the sale or offering for sale to the public of the original or copies of the sound recording or substantial part thereof.

(2) The rights under subsection (1) of this section shall be protected from the date of publication of the sound recording until the end of the fiftieth calendar year following the year of publication, or if the sound recording has not been published, from the date of fixation of the sound recording until the end of fiftieth calendar year following the year of fixation.

19. (1) where a sound recording published for commercial purposes, or a reproduction of such sound recording, is used directly for broadcasting or other form of communication to the public, or is publicly performed, a single equitable remuneration for the performer or performers and the producer of the sound recording shall be paid by the user.

Equitable remuneration for use of sound recordings.

(2) Unless otherwise agreed between the performer or the producer, half of the sum received by the producer under subsection (1) shall be paid by the producer to any performer.

(3) The right to an equitable remuneration under this section shall subsist from the date of publication of the sound recording until the end of the fiftieth calendar year following the year of publication, or if the sound recording has not been published, from the date of fixation of the sound recording until the end of the fiftieth calendar year following the year of fixation.

20. (1) Subject to the provisions of section 21, a broadcasting organisation shall have the exclusive right to carry out or to authorize any of followings acts :—

Rights of broadcasting organisation.

- (a) the re-broadcasting of its broadcast or a substantial part thereof ;
- (b) the communication to the public of its broadcast or a substantial part thereof ;

- (c) the fixation of its broadcast or a substantial part thereof ;
- (d) the reproduction of a fixation of its broadcast or a substantial part thereof.

(2) The rights under this section shall be protected from the moment when the broadcasting takes place until the end of the fiftieth calender year following the year in which broadcast takes place.

Limitations on protection.

21. Sections 17, 18, 19 and 20 shall not apply where the acts referred to in those sections are related to—

- (a) the use by a physical person exclusively for his own personal purposes ;
- (b) using short excerpts for reporting current events to the extent justified by the purpose of providing current information ;
- (c) use solely for the purpose of face to face teaching activities or for scientific research ;
- (d) cases where, under copyright, a work can be used without the authorization of the owner of copyright.

Enforcement of rights and disputes resolution.

22. (1) Any person who infringes or is about to infringe any of the rights protected under this Part may be prohibited from doing so by way of an injunction and be liable to damages. The owner of such rights is entitled to seek such other remedy as the court may deem fit.

- (2) (a) The Court shall have power and jurisdiction—
 - (i) to grant such injunctions to prohibit the commission of any act of, infringement or the continued commission of such acts of infringement of any right protected under this Part ;

- (ii) to order the impounding of copies of works or sound recordings suspected of being made sold, rented or imported without the authorization of the owner of any right protected under this Part where the making, selling, renting or importation of copies is subject to such authorization, as well as the impounding of the packaging of, the implements that could be used for the making of, and the documents, accounts or business papers, referring to, such copies.

(b) The Court shall in addition have the jurisdiction to order the payment by the infringer, of damages for the loss suffered as a consequence of the act of infringement, as well as the payment of expenses caused by the infringement, including legal costs. The amount of damages shall be fixed taking into account *inter alia*, the importance of the material and moral prejudice suffered by the owner of the right, as well as the importance of the infringer's profits attributable to the infringement. Where the infringer did not know or had no reasonable cause to know that he or it was engaged in infringing activity, the court may limit damages to the profits of the infringer attributable to the infringement or to pre established damages.

(c) The Court shall have the authority to order the destruction or other reasonable manner of disposing of copies made in infringement of any right protected under this Part if available and their packaging outside the channels of commerce in such a manner as would avoid harm to the owner of the rights, unless he requests otherwise. The provisions of this section shall not be applicable to copies and their packaging which were acquired by a third party in good faith.

(d) Where there is a danger that implements may be used to commit or continue to commit acts of infringement, the Court shall, whenever and to the extent that it is reasonable, order their destruction or other reasonable manner of disposing of the same outside the channels of commerce in such a manner as to minimize the risks of further infringements, including surrender to the owner of the rights.

(e) Where there is a danger that acts of infringement may be continued, the court shall make such orders as may be necessary prevent such acts being committed.

(f) The provisions of Chapter XXXV of this Act relating to infringement and remedies shall apply, *mutatis mutandis*, to rights protected under this Part.

(g) Any person who infringes or attempts to infringe any of the rights protected under this Part shall be guilty of an offence and on conviction be liable to any penalty as provided for in Chapters XXXVIII and XLI of the Act.

(3) (a) The Director-General may on an application being made in the prescribed form and manner by a person aggrieved by any of his rights under this Part being infringed or in any other manner affected, and after such inquiry as he thinks fit determine any question that may be necessary or expedient to determine in connection with such application and such decision shall be binding on the parties subject to the provisions of paragraph (b) of this subsection.

(b) Any person aggrieved by the decision of the Director-General may make an appeal to the Court and unless the Court issues an interim order staying the operation of the decision of the Director-General, such decision shall continue to be in force until the matter is decided by the Court.

Measures, remedies and sanctions against abuses in respect of technical means.

23. (1) The following acts shall be considered unlawful and in the application of section 22 shall be assimilated to infringements of the rights of the owner of copyright :—

- (i) the manufacture or importation for sale or rental of any device or means specifically designed or adapted to circumvent any device or means intended to prevent or restrict reproduction of a work or to impair the quality of copies made (the latter device or means hereinafter referred to as “copy protection or copy management device or means”);

- (ii) the manufacture or importation for sale or rental of any device or means that is susceptible to enable or assist the reception of an encrypted program, which is broadcast or otherwise communicated to the public, including reception by satellite, by those who are not entitled to receive the program.

(2) In the application of section 22, any illicit device and means mentioned in subsection (1) of this section shall be assimilated to infringing copies of works.

(3) The owner of copyright in a work shall also be entitled to the damages for infringement provided for in section 22 where—

- (a) authorized copies of the work have been made and offered for sale or rental in an electronic form combined with a copy protection or copy management device or means, and a device or means specifically designed or adapted to circumvent the said device or means, made or imported for sale or rental ;
- (b) the work is authorised for inclusion in an encrypted program, broadcast or otherwise communicated to the public, including by satellite, and a device or means enabling or assisting the reception of the program by those who are not entitled to receive the program made or imported, for sale or rental.

24. (1) Subject to the provision of subsection (4) of this section expressions of folklore shall be protected against—

- (a) reproduction ;
- (b) communication to the public by performance, broadcasting, distribution by cable or other means ;
- (c) adaptation, translation and other transformation, when such expressions are made either for commercial purposes or outside their traditional or customary context.

Protection of expressions of folklore and damages.

(2) The rights conferred by subsection (1) of this section shall not apply where the acts referred to therein are related to –

- (a) the use by a physical person exclusively for his own personal purposes ;
- (b) using short excerpts for reporting current events to the extent justified by the purpose of providing current information ;
- (c) the use solely for the purpose of face to face teaching or for scientific research ;
- (d) instances referred to in sections 11 and 12, where a work can be used without the authorization of the owner of copyright.

(3) In all printed publications, and in connection with any communication to the public of any identifiable expression of folklore, its source shall be indicated in an appropriate manner and in conformity with fair practice by mentioning the community or place from where the expression utilized has been derived.

(4) The right to authorize acts referred to in subsection (1) of this section shall subject to the payment of a prescribed fee, vest in a Competent authority to be determined by the Minister.

(5) The money collected under subsection (4) shall be used for purposes of cultural development.

(6) Any person who, without the permission of the Competent Authority referred to in subsection (4), uses an expression of folklore in a manner not permitted by this section shall be in contravention of the provisions of this section and shall be liable to damages, and be subject to an injunctions and any other remedy as the Court may deem fit to award in the circumstances.

25. (1) (a) No person or body of persons corporate or unincorporate shall, after the coming into operation of this Act, commence or carry on the business of issuing or granting licences in respect of any right protected under this Part except under or in accordance with, the provisions of paragraph (c) of this subsection :

Registration of society, administration of rights by societies, control over the rights and submission of report.

Provided that the owner of such right shall, in his individual capacity, continue to have the right to grant licences in respect of his own rights. Where such owner is a member of a society registered under this section the grant of such licences shall be consistent with his obligations as a member of such society.

(b) Any body of persons corporate or unincorporate which fulfils such conditions as may be prescribed, apply to the Director-General for permission to engage in the business specified in paragraph (a) and register the society.

(c) The Director-General may having regard to the interests of the owners of the rights protected under this Part, the interests and convenience of the public and in particular of the groups of persons who are most likely to seek licences in respect of relevant rights and the ability and professional competence of the applicant to grant permission to commence or carry on business specified in paragraph (a) of subsection (1) and register such person or body of persons as a collective society subject to such conditions as may be prescribed :

Provided that the Director-General shall not ordinarily register more than one such society to do business in respect of the same class of rights.

(d) The Director-General may, if he is satisfied that the society is being managed in a manner detrimental to the interests of the owners of rights concerned, cancel or suspend the registration of the society and the permission to commence or carry on business as specified in paragraph (a) of this subsection, after such inquiry as may be necessary.

(e) The Director-General may by order cancel or suspend the registration of such society and the permission to carry on business pending inquiry for such period not exceeding one year as may be specified in such order under paragraph (d) of this subsection.

(f) Where the Director-General suspends the registration of a society, he shall thereupon appoint an administrator to carry out the functions of the society.

(2) (a) Subject to such conditions as may be prescribed—

- (i) a society may accept from an owner of the rights exclusive authorization to administer any right under this Part by the issue of licences or collection of licence fees or both ; and
- (ii) an owner of the rights shall have the right to withdraw such authorization without prejudice to the rights of the society under any contract between such owner and society.

(b) It shall be competent for a society to enter into any agreement with any foreign society or organization administering rights corresponding to the rights protected under this Part, and to entrust to such foreign society or organization the administration in any foreign country of rights administered by the said society in Sri Lanka, or for administering in Sri Lanka the rights administered in a foreign country by such foreign society or organization :

Provided that no such society or organization shall permit any discrimination in regard to the terms of a licence or the distribution of fees collected in connection with the rights protected under this Part and in such foreign country.

(c) Subject to such conditions as may be prescribed, a society may –

- (i) issue licences in respect of any rights protected under this Part ;

- (ii) collect fees in pursuance of such licences ;
- (iii) distribute such fees among owners of rights after making deductions for its own expenses ;
- (iv) perform any other functions consistent with the provisions of subsection (4).

(3) (a) Every society shall be subject to the collective control of the owners of rights under this Part whose rights are administered in such a manner as may be prescribed in order to —

- (i) obtain the approval of such owners of rights for its procedures of collection and distribution of fees ;
- (ii) obtain their approval for the utilization of any amounts collected as fees for any purpose other than distribution to the owner of rights ; and
- (iii) provide to such owners regular, full and detailed information concerning all its activities, in relation to the administration of their rights.

(b) All fees distributed among the owners of rights shall, as far as may be, be distributed in proportion to the actual use of their works.

(4) (a) Every Society shall submit to the Director-General such returns as may be prescribed.

(b) The Director-General may call for any report or records of any society for the purpose of satisfying himself that the fees collected by the society in respect of the rights administered by it are being utilized or distributed in accordance with the provisions of this Part.

26. (1) The provisions of this Part in respect of the protection of literary, artistic or scientific works shall apply to —

Scope of application.

- (a) works of authors who are nationals of , or have their habitual residence in, Sri Lanka ; and

- (b) works first published in Sri Lanka, works first published in another country and hereupon published in Sri Lanka, within thirty days from such publication, irrespective of the nationality or residence of the author.

(2) The provisions of this Part shall also apply to works that are protected in Sri Lanka by virtue of, and in accordance with, any international convention or any international agreement to which Sri Lanka is a party.

Protection of performers.

27. (1) The provisions of this Part in respect of protection of performers shall apply to—

- (a) performers who are nationals of Sri Lanka ;
- (b) performers who are not nationals of Sri Lanka but whose performances :—
 - (i) take place on the territory of Sri Lanka ; or
 - (ii) are incorporated in sound recordings that are protected under this Part ; or
 - (iii) have not been fixed in a sound recording but are included in broadcasts qualifying for protection under this Part.

(2) The provisions of this Part on the protection of sound recordings, shall apply to —

- (a) sound recordings the producers of which, are nationals of Sri Lanka ;
- (b) sound recordings first fixed in Sri Lanka ; and
- (c) sound recordings first published in Sri Lanka.

(3) The provisions of this Part on the protection of broadcasts shall apply to—

- (a) broadcasts of broadcasting organisations where the registered office of such organisations are situated in Sri Lanka ; and

- (b) broadcasts transmitted from transmitters situated in Sri Lanka.

(4) The provisions of this Part shall in addition apply to performers, producers of sound recordings and broadcasting organisations protected by virtue of, and in accordance with, any international convention or any international agreement to which Sri Lanka is a party.

PART III

CHAPTER III

INDUSTRIAL DESIGNS

SCOPE OF THIS PART AND DEFINITIONS

- 28.** The protection of industrial designs provided under this Part shall be in addition to and not in derogation of any other protection provided under any other written law, in particular under Part II of this Act. Conditions for protection.
- 29.** The protection provided under this Part shall— Scope of this Part.
- (a) apply only to new industrial designs ;
 - (b) not apply to an industrial design which consists of any scandalous design or is contrary to morality or public order or public interest or which, in the opinion of the Director-General or of any Court to which such matter has been referred to is likely to offend the religious or racial susceptibilities of any community.
- 30.** For the purposes of this Part any composition of lines or colours or any three dimensional form, whether or not associated with lines or colours, that gives a special appearance to a product of industry or handicraft and is capable of serving as a pattern for a product of industry or handicraft shall be deemed to be an industrial design : Definition of industrial design.

Provided that anything in an industrial design which serves solely to obtain a technical result shall not be protected under this Part.

Definition of novelty.

31. (1) For the purpose of this Part a new industrial design means an industrial design which had not been made available to the public anywhere in the world and at any time whatsoever through description, use or in any other manner before the date of an application for registration of such industrial design or before the priority date validly claimed in respect thereof.

(2) An industrial design shall not be deemed to have been made available to the public solely by reason of the fact that, within the period of six months preceding the filing of an application for registration, it had been a display at an official or officially recognized, international exhibition.

(3) An industrial design shall not be considered a new industrial design solely by reason of the fact that it differs from an earlier industrial design in minor respects or that it concerns a type of product different from a product embodying an earlier industrial design.

CHAPTER IV

RIGHT TO PROTECTION OF INDUSTRIAL DESIGN

Ownership and right to protection of industrial design.

32. (1) The right to obtain protection of an industrial design belongs to its owner.

(2) Subject to provisions of section 34, the owner of an industrial design or his successor in title is its creator .

(3) Where two or more persons have jointly created an industrial design, the right to obtain protection shall belong to them jointly :

Provided that a person who has merely assisted in the creation of an industrial design but has made no contribution of a creative nature shall not be deemed to be the creator or a co-creator of such industrial design.

(4) Subject to the provisions of sections 33 and 34 the person who makes the first application for the registration of an industrial design or the person who first validly claims the earliest priority for his application shall be deemed to be the creator of such industrial design.

33. (1) Where the essential elements of an industrial design, are the subject of an application for registration or have been derived from an industrial design, for which the right to protection belongs to another person, such other person may apply in writing to the Director-General to assign the said application or registration to him.

Industrial design.

(2) The application for assignment shall be forwarded with the prescribed fee and evidence to substantiate the claim of the applicant. Where the registration has already been effected, the application under subsection (1) shall be made within one year from the date of the publication of the registration under section 44.

(3) The Director-General shall forthwith send a copy of such application for assignment to the applicant for registration or the registered owner of the industrial design, who shall within a period of three months from the date of such notice forward to the Director-General a counter statement in the prescribed manner together with the prescribed fee and evidence to substantiate his claim.

(4) If the applicant or the registered owner forwards a counter statement as referred to in subsection (3), the Director-General shall after hearing the parties, if he considers it necessary decide as expeditiously as possible whether the application or registration should be assigned and, where applicable whether the register should be rectified. If the applicant or the registered owner fails to forward a counter statement as provided for in subsection (3) within the period of three months, the Director-General shall allow the application referred to in subsection (1).

(5) Where, after an application for the registration of an industrial design has been filed, the person to whom the right to protection belongs gives his consent to the filling of the said application, such consent shall, for all purposes, be deemed to have been effective from the date of filling of such application.

Industrial design created by the employee to accrue to employer.

34. (1) In the absence of any provision to the contrary in any contract of employment or for the execution of work, the ownership of an industrial design created in the performance of such contract or in the execution of such work shall be deemed to accrue to the employer, or the person who commissioned the work, as the case may be :

Provided that where the industrial design acquires an economic value much greater than the parties could reasonably have foreseen at the time of concluding the contract of employment or for the execution of work, as the case may be, the creator shall be entitled to equitable remuneration which may be fixed by the Court on an application made by the creator to Court in the absence of an agreement between the parties.

(2) Where an employee whose contract of employment does not require him to engage in any creative activity creates, in the field of activities of his employer, an industrial design using data or means placed at his disposal by his employer, the ownership of such industrial design shall be deemed to accrue to the employer in the absence of any provision to the contrary in the contract of employment :

Provided that the employee shall be entitled to equitable remuneration, which in the absence of agreement between the parties, may be fixed by the Court on an application made by the employee, taking into account his emoluments, the economic value of the industrial design and any benefit derived from it by the employer.

(3) The rights conferred on the creator of an industrial design by subsections (1) and (2) shall not be restricted by contract.

35. (1) The creator of an industrial design shall be named as such in the registration, unless by a declaration in writing signed by him or any person authorized by him in writing in that behalf and submitted to the Director-General indicates his willingness to forgo his name being used in such registration.

Naming of creator of an industrial design.

(2) The provisions of subsection (1) not be altered, varied or modified by the terms of any contract.

CHAPTER V

REQUIREMENTS OF APPLICATION AND PROCEDURE FOR REGISTRATION OF AN INDUSTRIAL DESIGN

36. (1) An application for registration of an industrial design shall be made to the Director-General in the prescribed form and shall be accompanied by the prescribed fee and shall contain—

Requirements of application.

- (a) a request for registration of the industrial design ;
- (b) the name, address and description of the applicant and, if he is a resident outside Sri Lanka, a postal address for service in Sri Lanka ;
- (c) a specimen of the article embodying the industrial design or copies of a photographic or graphic representation of the industrial design, in colour where it is in colour, or drawings and tracings of the design ;
- (d) an indication of the kind of products for which the industrial design is to be used and, where the regulations make provision for classification, an indication of the class or classes in which such products are included ;
- (e) a declaration by the applicant that the industrial design is new to the best of his knowledge.

(2) The application for registration may be accompanied by a declaration signed by the creator of the industrial design, giving his name and address and requesting the same to be indicated in the registration.

(3) Where the applicant is not the creator of the industrial design the application shall be accompanied by a statement justifying the applicant's right to obtain registration.

(4) The Director-General shall in every case where the applicant is not the creator of the Industrial design, shall serve the creator with a copy of the statement referred to in subsection (3). The creator of the industrial design shall have the right to inspect the application and to receive, on payment of the prescribed fee, a copy thereof.

(5) Where the application is filed through an agent, it shall be accompanied by power of attorney granted to such agent by the applicant.

Right of priority.

37. The applicant for registration of an industrial design who desires to availhim self of the priority of an earlier application filed in a convention country shall, within six months of the date of such earlier application, append to his application a written declaration indicating the date and number of the earlier application, the name of the applicant and the country in which he or his predecessor in title filed such application and shall, within a period of three months from the date of the later application filed in Sri Lanka, furnish a copy of the earlier application certified as correct by the Appropriate Authority of the country where such earlier application was filed.

Application fee.

38. An application for registration of an industrial design shall not be entertained unless the prescribed fee has been paid to the Director-General.

Examination of application.

39. (1) The Director-General shall examine whether the applicant has complied with the provisions of sections 36, section 37 (where applicable) and section 38.

(2) Where the applicant fails to comply with the provision of sections 36 and 37 the Director-General shall refuse registration of the industrial design :

Provided that the Director-General shall first notify the applicant of any defect in the application and shall afford him an opportunity to remedy such defect within three months from the date of receipt of such notification.

(3) Where the applicant fails to comply with the provisions of section 37 the Director-General shall not, in connection with the registration of the industrial design, make any reference to the priority claimed

(4) Where the applicant complies with the provisions of section 37 the Director-General shall, in connection with the registration of the industrial design, record the priority claimed.

(5) Where the Director-General refuses to register an industrial design he shall, state the grounds for such refusal and inform the applicant, on payment of a prescribed fee of the grounds for his decision.

40. (1) Where the applicant complies with the provisions of sections 36 and 38 the Director-General shall examine the industrial design in relation to the provisions of section 29.

Registration.

(2) Where the industrial design is not registrable under section 29 the Director-General shall notify the applicant accordingly, stating the grounds for refusal of registration.

(3) Where the Director-General refuses the application of a person for registration of an industrial design, the applicant may within a period of one month from the date of such notification in terms of section (2), make his submissions in writing on the matter of such refusal to the Director-General.

(4) On receipt of any such submission as required by subsection (3) the Director-General may grant such applicant a hearing and inform him of the date and time of such hearing. The Director-General may after such hearing register or refuse to register such industrial design.

(5) (a) Notwithstanding the provisions of subsections (1) (2), (3) and (4) where the Director-General finds that the essential elements of an industrial design is derived from an industrial design already registered in respect of which an application for registration is made, he shall notify the applicant accordingly and request him, with a copy to the registered owner of the cited industrial design, to show that the industrial design is not so derived.

(b) The applicant may, within a period of three months from the date of such notice, tender his written submissions to the Director-General with the prescribed fee. The registered owner of the cited industrial design may also tender his observations in writing within the same period of time.

(c) On receipt of such written submissions and observations, if any, the Director-General shall after hearing the parties if he considers it necessary forthwith determine whether such industrial design should be registered or not.

(d) Where the applicant fails to tender his written submissions as required by paragraph (b) of subsection (5) the Director-General shall refuse the application for the registration of the industrial design for reasons to be stated and he shall in writing, if the applicant so requests, inform the applicant in writing of the grounds for his decision on payment by the applicant of the prescribed fee.

(6) Where the Director-General is of the opinion that the industrial design is registrable he may request the applicant to pay within a period of one month the prescribed fee for publication of the application.

(7) Where the fee for publication of the application is not paid within the prescribed period registration of the industrial design shall be refused.

(8) (a) If the fee for publication is paid within the prescribed period the Director-General shall proceed to publish the application setting out the date of application, number of the application, the name and address of the applicant and if the applicant is resident outside Sri Lanka, a postal address for service in Sri Lanka, the priority claimed, a description of the industrial design and the kind and class of the industrial design.

(b) Notwithstanding the provisions of subsections (6), (7) and paragraph (a) of subsection (8), the Director-General may in his discretion by a written notice, require the applicant to publish the application in accordance with the provisions of paragraph (a) of subsection (8) and in the form as indicated by the Director-General. Where the applicant fails or neglects to publish the application as required by the Director-General within a period of two months from the said notice of the Director-General, the application may be refused.

(9) Where any person considers that the industrial design is not registrable on one or more grounds referred to in section 29 he may within a period of two months from the date of publication give to the Director-General in a prescribed form and together with the prescribed fee, notice of opposition to such registration stating his grounds of opposition accompanied by evidence to substantiate such grounds.

(10) Where notice of opposition has not been received by the Director-General within the period specified in subsection (9) the Director-General shall register the industrial design.

(11) Where, within the period specified in subsection (9) notice of opposition in the prescribed form is received by the Director-General, together with the prescribed fee, he shall serve a copy of such grounds of opposition on the applicant and shall request him to present his observations on those grounds in writing accompanied by evidence to support his application within a period of one month.

(12) On receipt of the observations of the applicant the Director-General shall after hearing the parties, where taking all the circumstances into consideration he considers such hearing necessary, decide, as expeditiously as possible, whether or not the industrial design may be registered. If he decides that the industrial design is registrable he shall accordingly register such industrial design—

- (a) where no appeal is preferred against his decision, upon the expiry of the period within which an appeal may be preferred against his decision ;
- (b) where an appeal is preferred against his decision, upon the dismissal of such appeal, as the case may be.

(13) The Director-General may allow a reasonable extension of the prescribed period within which any act has to be done or any fee has to be paid under this section.

Issue of certificate of registration.

41. Upon the registration of an industrial design, the Director-General shall issue to the registered owner thereof a Certificate of Registration and shall, at the request of the registered owner, send such certificate to him by registered post to his last recorded postal address in Sri Lanka or, if he is resident outside Sri Lanka, to his last recorded postal address.

Register of Industrial Designs.

42. (1) The Director-General shall keep and maintain a register called the “Register of Industrial Designs” wherein shall be recorded, in the order of their registration, all registered industrial designs and such other particulars relating to the industrial designs as are authorised or directed by this Part to be so recorded or may from time to time be prescribed

(2) The registration of an industrial design shall include a representation of the industrial design and shall specify its number, the name and address of the registered owner and, if the registered owner is resident outside Sri Lanka, a postal address for service in Sri Lanka ; the date of application and

registration ; if priority is validly claimed, an indication of that fact and the number, date and country of the application on the basis of which the priority is claimed ; the kinds and classes of products referred to in paragraph (d) subsection (1) of section 36 and the name and address of the creator of the industrial design, if he has requested his name to be indicated as such in the registration.

43. Any person may examine the register and may obtain certified extracts therefrom on payment of the prescribed fee.

Examination of register and certified copies.

44. The Director-General shall cause to be published in the Gazette, in the prescribed form, all registered industrial designs in the order of their registration, including in respect of each industrial design so published reference to such particulars as may be prescribed.

Publication of registered industrial designs.

CHAPTE R VI

DURATION OF REGISTRATION OF AN INDUSTRIAL DESIGN

45. Subject to, and without prejudice to the other provisions of this Part, registration of an industrial design shall expire on the completion of five years from the date of receipt of the application for registration.

Duration of registration.

46. (1) Registration of an industrial design may be renewed for two consecutive periods of five years each, on an application made in that behalf and on payment of the prescribed fee.

Renewal.

(2) The renewal fee shall be paid within the six months preceding the date of expiration of the period of registration :

Provided, however, that a period of grace of six months shall be allowed for the payment of the fee after the date of such expiration, upon payment of such surcharge as may be prescribed.

(3) The Director-General shall record in the register and cause to be published in the Gazette in the prescribed form a list of all renewals of registration of industrial designs.

(4) Where the renewal fee has not been paid within such period or such extended period as is specified in subsection (2), the Director-General shall remove from the relevant register the registration relating to such industrial design.

CHAPTER VII

RIGHTS OF A REGISTERED OWNER OF AN INDUSTRIAL DESIGN

Rights of a registered owner of an industrial design.

47. (1) Subject and without prejudice to other provisions of this Part, the registered owner of an industrial design shall in relation to such industrial design have the exclusive rights to —

- (a) reproduce and embody such industrial design in making a product ;
- (b) import, offer for sale, sell or use a product embodying such industrial design ;
- (c) stock for the purpose of offering for sale, selling or using, a product embodying such industrial design ;
- (d) assign or transmit the registration of the industrial design ;
- (e) conclude licence contracts.

(2) No person shall do any of the acts referred to in subsection (1) without the consent of the registered owner of the industrial design.

(3) The acts referred to in subsection (1), if done by any unauthorized person, shall not be lawful solely by reason of the fact that the reproduction of the registered industrial design differs from the registered industrial design in minor respects or that the reproduction of the registered industrial design is embodied in a type of product different from a product embodying the registered industrial design.

- 48.** The provisions of subsection (1) of section 47 shall—
- (1) extend only to acts done for industrial or commercial purposes ;
 - (2) not preclude third parties from performing any of the acts referred to therein in respect of a product embodying the registered industrial design after the said product has been lawfully manufactured, imported, offered for sale, sold, used or stocked in Sri Lanka.
- Limitation of registered owner's rights.

CHAPTER VIII

ASSIGNMENT AND TRANSMISSION OF APPLICATIONS FOR REGISTRATION OF INDUSTRIAL DESIGNS AND REGISTRATIONS OF THE SAME

- 49.** (1) An application for registration or the registration of an industrial design may be assigned or transmitted and such assignment or transmission shall be in writing signed by or on behalf of the contracting parties.
- Assignment and transmission of applications and registrations.
- (2) Any person becoming entitled by assignment or by transmission to an application for registration or the registration of an industrial design may apply to the Director-General in the prescribed manner along within the prescribed fee to have such assignment or transmission recorded in the register.
- (3) No such assignment or transmission shall be recorded in the register unless the prescribed fee has been paid to the Director-General.
- (4) No such assignment or transmission shall have effect against third parties unless so recorded in the register.

- 50.** In the absence of any agreement to the contrary between the parties, joint owners of an application for registration or the registration of an industrial design may, separately, assign or transmit their rights in the application
- Joint ownership of applications and registration.

or registration, use the industrial design and exercise the exclusive rights referred to in paragraphs (a) to (c) of subsection (1) of section 47, but may only jointly withdraw the application, renounce the registration or conclude a licence contract.

CHAPTER IX

LICENCE CONTRACTS OF INDUSTRIAL DESIGNS

Interpretation.

51. For the purposes of this Part licence contract means any contract by which the registered owner of an industrial design (“the Licensor”) grants to another person or enterprise (“the licensee”) a licence to do any or all of the acts referred to in paragraphs (a), (b) and (c) of subsection (1) of section 47.

Form and record of licence contract.

52. (1) A licence contract shall be in writing signed by or on behalf of the contracting parties.

(2) Upon a request in writing signed by or on behalf of the contracting parties, the Director-General shall on payment of the prescribed fee, record in the register such particulars relating to the contract as the parties thereto requires to be recorded :

Provided that the parties shall not be required to disclose or have recorded any other particulars relating to the said contract.

Rights of licensee.

53. In the absence of any provision to the contrary in the licence contract, the licensee shall—

- (a) be entitled to do any or all of the acts referred to in paragraphs (a), (b) and (c) of subsection (1) of section 47 within Sri Lanka, during the period of validity of the registration of the industrial design, inclusive of the period of renewal if any ;
- (b) not be entitled to assign or transmit his rights under the licence contract or grant sub-licenses to third parties.

54. (1) In the absence of any provision to the contrary in the licence contract, the licensor may grant further licenses to third parties in respect of the same industrial design or on behalf of himself do any or all of the acts referred to in sub-paragraphs (a), (b) and (c) of subsection (1) of section 47.

Rights of licensor.

(2) Where the license contract provides that the license is exclusive, and unless it is expressly provided otherwise in such contract, the licensor shall not grant further licenses to third parties in respect of the same industrial design or not execute any of the acts referred to in sub-paragraphs (a), (b) and (c) of subsection (1) of section 47 or cause to be executed.

55. Any clause or condition in a license contract shall be null and void in so far as it imposes upon the licensee, in industrial or commercial field, restrictions not derived from the rights conferred by this Part on the registered owner of an industrial design, or unnecessary for safeguarding of such rights :

Invalid clauses in license contracts.

Provided that—

- (a) restrictions concerning the scope, extent, or duration of use of the industrial design, or the geographical area in or the quality or quantity of the products in connection with which the industrial design may be used ; and
- (b) obligations imposed upon the licensee to refrain from all acts capable of prejudicing the validity of the registration of the industrial design,

shall not be deemed to constitute such restrictions.

56. Where, before the expiration of the license contract the registration is declared null and void the licensee in such event not be required to make any payment to the licensor under the licence contract, and shall be entitled to reimbursement of the payments already made :

Effect of nullity of registration of license contract.

Provided that the licensor shall not be required to make any repayment, or be required to make repayment in part, to the extent of his ability to prove that such repayment would be inequitable having considered all the circumstances and in particular whether the licensee has effectively profited from the licence.

Expiry,
termination or
invalidation of
licence
contract.

57. The Director-General shall—

- (1) if he is satisfied that a recorded licence contract has expired or been terminated, record that fact in the register upon a request in writing to that effect signed by or on behalf of the parties thereto ;
- (2) record in the register the expiry, termination or invalidation of a licence contract under any provision of this Part.

Licence
contracts
involving
payments
abroad.

58. (1) Where the Director-General has reasonable cause to believe that any licence contract or any amendment or renewal thereof—

- (a) which involves the payment of royalties abroad ; or
- (b) which by reason of other circumstances relating to such licence contract,

is detrimental to the economic development of Sri Lanka he shall in writing communicate such fact to the Governor of the Central Bank and transmit all papers in his custody relevant to the matter which are essential to the making of a decision on such matter to the Governor of the Central Bank.

(2) Where the Governor of the Central Bank on receipt of any communication under subsection (1) informs the Director-General in writing that the said licence contract or any amendment or renewal thereof is detrimental to the economic development of Sri Lanka, the Director-General shall cancel and invalidate the record of such contract in the register.

(3) The provisions of this section shall apply, *mutatis mutandis*, to assignment and transmissions.

(4) The provisions of this Chapter shall apply *mutatis mutandis*, to sub-licences.

CHAPTER X

RENUNCIATION AND NULLITY OF REGISTRATION OF INDUSTRIAL DESIGN

59. (1) The registered owner of an industrial design may renounce the registration by a declaration in writing signed by him or on his behalf in writing and submit it to the Director-General.

Renunciation of registration.

(2) The Director-General shall, on receipt of the said declaration, record it in the register and cause such record to be published in the Gazette.

(3) The renunciation shall take effect from the date that the Director-General receives the said declaration.

(4) Where a licence contract in respect of an industrial design is recorded in the register the Director-General shall not, in the absence of any provision to the contrary in such licence contract, accept or record the said renunciation except upon receipt of a signed declaration by which every licensee or sub-licensee on record consents to the said renunciation, unless the requirement of their consent is expressly waived in the licence contract.

60. (1) The Court may on the application, to which the registered owner of the industrial design and every assignee, licensee or sub-licensee on record shall be made a party, of any person having a legitimate interest, or of any competent authority including the Director-General, declare the registration of the industrial design null and void on any one or more of the following grounds—

Nullity of registration.

(a) that the provisions of sections 29, 30 and 31 have not been complied with :

Provided, however, that the grounds of nullity referred to in subsection (2) of section 29 shall not be taken into account if such grounds are not apparent on the date of the making of the application to Court ;

- (b) that the identical industrial design has been previously registered upon a prior application or has been conferred earlier priority by virtue of an application in that behalf upon the ground of prior registration in another country ;
- (c) that the essential elements of the registered industrial design have been unlawfully derived from the creation of another person within the meaning of section 33.

(2) Where an application under subsection (1) of this section relates to several industrial designs, included in the registration and any ground for nullity applies to some, the Court shall declare such registration null and void in so far as it relates to the industrial design in respect of which the ground for nullity applies.

Date and effect of nullity.

61. (1) Upon a final decision of the Court declaring total or partial nullity of the registration of an industrial design, the registration shall be deemed to have been null and void totally or partially, as the case may be, from the date of such registration.

(2) When a declaration of nullity becomes final the Registrar of the Court shall notify the Director-General who shall record such declaration in the register and cause it be published in the Gazette.

PART IV

CHAPTER XI

DEFINITIONS

62. (1) For the purposes of this Part, “invention” means an idea of an inventor which permits in practice the solution to a specific problem in the field of technology.

Definition of invention.

(2) An invention may be, or may relate to, a product or process.

(3) The following, notwithstanding they are inventions within the meaning of subsection (1), shall not be patentable—

- (a) discoveries, scientific theories and mathematical methods ;
- (b) plants, animals and other micro organism other than transgenic micro organism and an essentially biological process for the production of plants and animals other than non-biological and microbiological processes :

Provided however, that a patent granted in respect of micro-organisms shall be subject to the provisions of this Act;

- (c) schemes, rules, or methods for doing business, performing purely mental acts or playing games ;
- (d) methods for the treatment of the human or animal body by surgery or therapy, and diagnostic methods practiced on the human or animal body :

Provided however, any product used in any such method shall be patentable ;

- (e) an invention which is useful in the utilization of special nuclear material or atomic energy in an atomic weapon ;

- (f) any invention, the prevention within Sri Lanka of the commercial exploitation of which is necessary to protect the public order, morality including the protection of human, animal or plant life or health or the avoidance of serious prejudice to the environment.

Patentable inventions.

63. An invention is patentable if it is new, involves an inventive step and is industrially applicable.

Novelty.

64. (1) An invention is new if it is not anticipated by prior art.

(2) Prior art shall consist of—

(a) everything disclosed to the public, anywhere in the world, by written publication, oral disclosure, use or in any other way, prior to the filing or, where appropriate, priority date of the patent application claiming the invention ;

(b) the contents of patent application made in Sri Lanka having an earlier filing or, where appropriate, priority date than the patent application referred to in paragraph (a), to extent that such contents are included in the patent granted on the basis of the said patent application made in Sri Lanka.

(3) A disclosure made under paragraph (a) of subsection (2) shall be disregarded—

(a) if such disclosure occurred within one year preceding the date of the patent application and if such disclosure or in consequence of acts committed by the applicant or his predecessor in title ;

(b) if such disclosure occurred within six months preceding the date of the patent application and if such disclosure was by reason or in consequence of any abuse of the rights of the applicant or his predecessor in title.

65. An invention shall be considered as involving an inventive step if, having regard to the prior art relevant to the patent application claiming the invention, such inventive step would not have been obvious to a person having ordinary skill in the art.

Inventive step.

66. An invention shall be considered industrially applicable if it can be made or used in any kind of industry.

Industrial application of invention.

CHAPTER XII

RIGHT TO A PATENT

67. (1) Subject to the provisions of section 68 the right to a patent shall belong to the inventor.

Right to a patent.

(2) Where two or more persons have jointly made an invention, the right to a patent shall belong to them jointly.

(3) If and to the extent to which two or more persons have made the same invention independently of each other, the person whose application has the earliest filing date or, if priority is claimed, the earliest validly claimed priority date, shall have the right to the patent, so long as that application is not withdrawn, abandoned or rejected.

68. Where the essential element of the invention claimed in a patent application or patent have been unlawfully derived from an invention for which the right to the patent belongs to another person, such other person may apply to the Court for an order that the said patent application or patent be assigned to him :

Assignment of patent application or patent, by court in case of usurpation.

Provided that where, after a patent application has been filed, the person to whom the right to the patent belongs gives his consent to the filing of the said patent application, such consent shall, for all purposes, be deemed to have been effective from the date of filing of such application :

Provided also that the Court shall not entertain an application for the assignment of a patent after the expiry of a period of five years from the date of grant of the patent.

Inventions made by an employee or pursuant to a commission.

69. (1) In the absence of any provision to the contrary in any contract of employment or for the execution of work, the right to a patent for an invention made in the performance of such contract of employment or in the execution of such work shall be deemed to accrue to the employer, or the person who commissioned the work, as the case may be :

Provided that where the invention acquires an economic value much greater than the parties could reasonably have foreseen at the time of entering the contract of employment or for the execution of work, as the case may be, the inventor shall be entitled to equitable remuneration which may be fixed by the Court an application made to it in that behalf, in the absence of an agreement between the parties.

(2) Where an employee whose contract of employment does not require him to engage in any inventive activity, makes in the field of activities of his employer, an invention using data or means placed at his disposal by his employer, the right to the patent for such invention shall be deemed to accrue to the employer, in the absence of any provision to the contrary in the contract of employment :

Provided that the employee shall be entitled to equitable remuneration which, in the absence of agreement between the parties, may be fixed by the Court, taking into account his emoluments an application made to it in that behalf the economic value of the invention and any benefit derived from it by the employer.

(3) The rights conferred on the inventor under subsections (1) and (2) shall not be restricted by contract.

Naming of inventor.

70. (1) The inventor shall be named as such in the patent, unless by a declaration in writing signed by him or on his behalf and submitted to the Director-General, he indicates his decision to forgo his name being included in the patent.

(2) The provisions of subsection (1) shall not be modified by the terms of any contract.

CHAPTER XIII

REQUIREMENTS OF APPLICATION AND PROCEDURE FOR GRANT OF A PATENT

71. (1) (a) An application for the grant of a patent shall be made to the Director-General in the prescribed form and shall contain—

Requirements of applications

- (i) a request for the grant of the patent ;
- (ii) a description of the patent ;
- (iii) a claim or claims ;
- (iv) a drawing or drawings, where required ;
- (v) an abstract ;
- (vi) date and number of any application for a patent filed by the applicant abroad (hereinafter referred to as the “foreign application”), if any, relating to the same, or essentially the same invention as that claimed in the present application ;
- (vii) a declaration that the applicant or his predecessor in title has not obtained a patent abroad before the application was filed relating to the same or essentially the same invention as that claimed in the application.

(b) If the declaration referred to in sub-paragraph (vii) of paragraph (a) of subsection (1) of this section is found to be false, the Court may declare the patent to be null and void on an application made to it by any interested party or a Competent Authority including the Director-General. The registered owner of the patent, assignees and licensees shall be made party to that application.

(c) Where the applicant's ordinary residence or principal place of business is outside Sri Lanka, he shall be represented by an agent resident in Sri Lanka whose name and address shall be given in the application, and the application shall be accompanied by a power of attorney granted to such agent by the applicant.

(d) The application may be accompanied by a declaration signed by the inventor, giving his name and address and requesting that he be named as such in the patent.

(2) (a) The request shall contain –

- (i) a petition that the patent be granted ;
- (ii) the title of the invention;
- (iii) the name, address, description and any other prescribed information concerning the applicant, the inventor and the agent, if any.

(b) Where the applicant is not the inventor, the request shall be accompanied by a statement justifying the applicant's right to the patent.

(c) The Director-General shall send a copy of the statement referred to in paragraph (b) to the inventor who shall have the right to inspect the application and to receive, on payment of the prescribed fee, a copy thereof.

(3) The description shall disclose the invention in a manner sufficiently clear and complete for the invention to be evaluated, and to be carried out by a person having ordinary skill in the relevant technology and shall, in particular, indicate the best mode known to the applicant for carrying out the invention.

(4) The claim or claims shall be clear, concise and supported by the description.

(5) Drawings shall be required when they are necessary for the understanding of the invention.

(6) The terms of any claim shall determine the scope and extent of the protection afforded by the patent, and the description and drawings may be used to interpret such claim.

(7) The abstract shall serve the purpose of technical information and shall not be used for the purpose of determining or interpreting the scope and extent of the protection afforded by the patent.

(8) Any application filed outside Sri Lanka under the Patent Corporation Treaty for a patent designating Sri Lanka shall if the applicant files a corresponding application with the Director-General be deemed to be an application made under this Act.

For the purposes of this Chapter “the Patent Corporation Treaty” means the Patent Corporation Treaty made in Washington on June 19th 1970, as amended from time to time.

72. An application for the grant of a patent shall not be entertained unless prescribed fee has been paid to the Director-General.

Application fee.

73. (1) Every applicant shall furnish, within the prescribed period, a report, which if not in English shall be accompanied by a translation thereof in English, of a search which shall conform such type as may be prescribed :

Search report.

Provided, however, that in lieu of the said search an applicant may request the Director-General to refer the application to a local examiner who shall examine the application on the basis of any claim with due regard to the description and the drawings, if any, and furnish a report to the Director-General within the prescribed period, on the relevant prior art, after making the required effort to discover as much of the relevant prior art as facilities permit ; and for the purposes of the search the local examiner shall make reference to every documentation on prior art available to him.

(2) The applicant shall, when requiring the Director-General to refer his application to a local examiner, forward such application with the prescribed fee to Director-General.

(3) (a) The applicant shall, at the request of the Director-General, furnish him with the following documents in respect of any foreign application for a patent filed by him abroad relating to the same or essentially the same invention as that claimed in the application filed under this Act –

- (i) a copy of any communication received by the applicant concerning the results of any search or examination carried out in respect of the foreign application ;
- (ii) a copy of the patent granted on the basis of the foreign application ; and
- (iii) a copy of any final decision rejecting the foreign application or refusing the grant of a patent requested in the foreign application.

(b) The applicant shall, at the request of the Director-General, furnish him with a copy of any final decision invalidating the patent granted on the basis of the foreign application referred to in paragraph (a).

(4) For this purposes of the section “local examiner” means any skilled person to whom the Director-General may refer questions concerning patents.

Unity of invention.

74. An application shall relate to one invention only or to a group of inventions which are so linked to each other so as to form a single general inventive concept.

Amendment and division of application.

75. (1) An applicant may amend the application, provided that the amendment shall not exceed the limits of the disclosure in the initial application.

(2) (a) An applicant may divide the application into two or more applications (hereinafter referred to as “divisional applications”) provided that each divisional application shall not exceed the limits of disclosure in the initial application.

(b) Each divisional application shall be entitled to the filing, or where applicable, priority, from date of the initial application.

(3) An amendment to an application or a division of an application shall be subject to the payment of a prescribed fee.

76. (1) An application may contain a declaration claiming the priority, pursuant to the Convention, of one or more earlier national, regional or international applications filed by the applicant or his predecessor in title in or for any State party to the said Convention.

Right of priority.

(2) Where the application contains a declaration under subsection (1), the Director-General may require the applicant to furnish, within the prescribed period, a copy of the earlier application, certified as correct by an officer authorized in that behalf, for that purpose by the Office with which it was filed or, where the earlier application is an international application filed under the Patent Co-operation Treaty, by an office authorized in that behalf for that purpose by the International Bureau of the World Intellectual Property Organization.

(3) The effect of the declaration referred to in subsection (1) shall be the same as provided for in the Convention referred to therein.

(4) Where any of the requirements of this section or any regulation made thereunder have not been complied with, the declaration referred to in subsection (1) shall be deemed to be null and void.

77. (1) The Director-General shall record as the filing date, the date of receipt of the application :

Filing date.

Provided that on the date of the receipt of the application , contains –

(a) the name and address of the applicant ;

- (b) the name and address of the inventor and, where the applicant is not his inventor, the statement referred to in paragraph (b) of subsection (2) of section 71 ;
- (c) a description of the patent;
- (d) a claim or claims :

Provided further that at the time of receipt of the application the prescribed fee has been paid.

(2) Where the Director-General finds, at the time of receipt of the application, that the provisions of subsection (1) have not been complied with, he shall request the applicant to file the required correction within a period of three months from the date of such request.

(3) Where the applicant complies with the request referred to in subsection (2), the Director-General shall record as the filing date, the date of receipt of the required correction ; where the applicant fails to so comply the Director-General shall treat the application as null and void.

(4) Where the application refers to drawings which in fact are not included in the application, the Director-General shall request the applicant to furnish the missing drawings.

(5) Where the applicant complies with the request referred to in subsection (4), the Director-General shall record as the filing date the date of receipt of the missing drawings ; where the applicant fails to so comply the Director-General shall record as the filing date, the date of receipt of the application and shall make no reference to the said drawings.

(6) The title, description, drawings, abstracts and claims filed with any international application made under subsection (8) of section 71, designating Sri Lanka shall be deemed to be carried out in accordance with specifications required under this Act.

(7) The filing date of such application made under subsection (8) of section 71 and processed by the office shall be deemed to be the date of filing of such application under the Patent Corporation Treaty.

78. (1) The Director-General shall examine the application and shall satisfy himself as to the fulfilment of the following :—

Examination of applications &c.

- (a) where applicable, the requirements of paragraph (b) of subsection (1) of section 71 ;
- (b) the requirements of paragraph (a) of subsection (2) of section 71 ;
- (c) where applicable, the requirements of paragraph (b) of subsection (2) of section 71 ;
- (d) the description, the claims and where applicable, the drawings, which comply with the prescribed requirements ;
- (e) the essential elements of the invention claimed in the application have not been unlawfully derived from a patent already granted in Sri Lanka ;
- (f) the application contains an abstract ;
- (g) the search report referred to in section 73 has been submitted.

(2) Where the Director-General finds that the conditions referred to in subsection (1) are not fulfilled he shall request the applicant to file the required correction within a period of three months from the date of such request ; where the applicant fails to so comply the application shall, subject to the provisions of subsection (3), be rejected.

(3) Where no correction is provided in response to a request under subsection (2), the Director-General shall, on payment of the prescribed fee within the prescribed period, include the corrections into the application and if the prescribed fee is not paid within the prescribed period the application shall be rejected.

(4) Where the Director-General finds that the essential elements of an invention claimed in an application are unlawfully derived from a patent already granted in Sri Lanka, such application shall be rejected.

(5) The Director-General shall notify the applicant of any decision under subsections (2), (3) and (4) and any decision taken to reject the application shall be in writing stating the reasons for such rejection.

Grant of patent.

79. (1) The grant of a patent shall not be refused and a patent shall not be invalidated on the ground that the commercial exploitation of the claimed invention is prohibited by any law except where the prevention of the commercial exploitation of the claimed invention is necessary in order to protect public order, and morality including the protection of human, animal or plant life or health or for the avoidance of serious prejudice to the environment.

(2) Where the applicant fulfils the requirements of subsection (1) of section 78 to the satisfaction of the Director-General, he shall grant the patent, and shall forthwith —

- (a) record the particulars relating to patent in the Register of patents required to be maintained in accordance with the provisions of section 80 ;
- (b) issue a certificate to the applicant in respect of the grant of a patent together with a copy of the patent documents including the search report :

Provided however where the applicant has not tendered an international search report, but has requested the Director-General to refer the application to a local examiner under the proviso to section 73, the Director-General shall publish a notice informing the public, of the possibility of granting a patent to the applicant at the expiration of a period of three months from the date of publication of the notice, unless otherwise directed by the Court.

(3) The Director-General shall thereafter as soon as practicable cause to be published in the Gazette a notice pertaining to the grant of the patent.

(4) The patent shall be deemed to be granted on the date that the Director-General acts in accordance with the provisions of paragraph (a) of subsection (2).

(5) The notice referred to in the proviso to subsection (2) shall contain the name and address of the applicant and where the applicant is resident outside Sri Lanka a postal address for service in Sri Lanka, a description of the invention and any other information as may be prescribed.

(6) The applicant shall make the payment of the prescribed fee for the publication referred to in the proviso to subsection (2) upon the request of the Director-General, and where the applicant fails to satisfy such request within one month from the date of such request the Director-General shall refuse to grant such patent.

80. The Director-General shall keep and maintain a register (hereinafter called and referred to as the “Register of Patents”) wherein all patents shall be recorded, in the order of their grant, specifying the number of the patent, the name and address of the grantee and, if the grantee is resident outside Sri Lanka, a postal address for service in Sri Lanka, the date of application and grant, any change in the ownership of a patent application or patent, the amendment or division of a patent application, the assignment or transmission of a patent application or patent, any valid claim to priority, the surrender or revocation of a patent and such other matters relating to patents as are authorised or directed by this Part to be so recorded or may from time to time be prescribed.

Register of
Patents.

81. Any person may examine the register and may obtain certified extracts therefrom on payment of the prescribed fee.

Examination of
register and
certified copies.

Inspection of files.

82. (1) Any person may, after the grant of a patent, inspect, subject to subsections (2) and (3), the file relating to any patent and may obtain certified extracts therefrom on payment of the prescribed fee.

(2) The file relating to a patent application may be inspected before the grant of the patent only with the written permission of the applicant :

Provided that before the grant of the patent the Director-General may divulge the following information to any person—

- (a) the name, address and description of the applicant and the name and address of the agent, if any ;
- (b) the number of the application ;
- (c) the filing date of the application and, if priority is claimed, the priority date, the number of the earlier application and the name of the State in which the earlier application was filed or, when the earlier application is a regional or an international application, the name of the State or States for which and the office with which, it was filed ;
- (d) the title of the invention ;
- (e) any change in the ownership of the application and any reference to a licence contract appearing in the file relating to the application.

(3) Where the provisions of the proviso to subsection (2) of section 79 are applicable, the reference to the grant of a patent in subsections (1) and (2) of this section shall be deemed to be a reference to the publication of the notice referred to in the said proviso.

(4) No person employed in or at the Office may make a patent application or be granted a patent or acquire or hold in any manner whatsoever any right relating to a patent during the period of his employment in or at the office and for one year after the termination of such employment.

CHAPTER XIV

DURATION OF PATENT

83. (1) Subject and without prejudice to the other provisions of this Part a patent shall expire twenty years after the filing date of application for its registration.

Duration of patent.

(2) Where a patentee intends at the expiration of the second year from the date of grant of the patent to keep the same in force he shall, twelve months prior to the date of expiration of the second and each succeeding year during the term of the patent, pay the prescribed annual fee:

Provided, however, that a period of grace of six months shall be allowed after the date of such expiration, upon payment of such surcharge as may be prescribed :

Provided further that the patentee may pay in advance the whole or any portion of the aggregate of the prescribed annual fees.

CHAPTER XV

RIGHTS OF OWNER OF PATENT

84. (1) Subject and without prejudice to the other provisions of this Part, the owner of a patent shall have the following exclusive rights in relation to a patented invention:—

Rights of owner of patent.

- (a) to exploit the patented invention ;
- (b) to assign or transmit the patent ;
- (c) to conclude licence contracts.

(2) No person shall do any of the acts referred to in subsection (1) without the consent of the owner of the patent.

(3) For the purposes of this Part “exploitation” of a patented invention means any of the following acts in relation to a patent :—

- (a) when the patent has been granted in respect of a product—
 - (i) making, importing, offering for sale, selling, exporting or using the product ;
 - (ii) stocking such product for the purpose of offering for sale, selling, exporting or using ;
- (b) when the patent has been granted in respect of a process—
 - (i) using of the process ;
 - (ii) doing any of the acts referred to in paragraph (a), in respect of a product obtained directly by means of the process ;
 - (iii) preventing any person using that process or using, selling or importing any product obtained directly by means of that process unless such person is authorized to do so.

Burden of proof to be on the alleged infringer.

85. (1) Where the subject matter of a patent is a process for obtaining a product, the burden of proof in a civil action of establishing that an alleged infringing product was not obtained by that patented process shall be on the alleged infringer—

- (a) if the product obtained by the patented process is new ; or
- (b) if a substantial likelihood exists that the product was made by the patented process and the patent owner has been unable through reasonable efforts to determine the process actually used.

(2) In the gathering and evaluation of evidence, the legitimate interests of the alleged infringer in protecting his undisclosed information shall be taken into account.

86. (1) The provisions of section 84 shall—

Limitation of
owner's rights.

- (i) extend only to acts done for industrial or commercial purposes and in particular shall not extend to acts done only for the purpose of scientific research ;
- (ii) not preclude a person having the rights referred to in section 87 or a licensee, from exploiting the patented invention ;
- (iii) not extend to the presence or use of products on foreign vessels, aircraft, spacecraft, or land vehicles which temporarily or accidentally enter the waters, airspace or territory of Sri Lanka ;
- (iv) not extend to acts in respect of articles which have been put in the market by the owner of the patent or by a manufacturer under licence.

(2) (a) Any person, body of persons, a government department or a statutory body may make an application to the Director General for the purpose of obtaining a licence to exploit a patent in the manner hereafter provided.

(b) Upon the receipt of such application, the Director General may issue a licence for exploitation if he is satisfied that the applicant has made efforts to obtain approval from the right holder on reasonable commercial terms and conditions and that such efforts have not been successful within a reasonable period of time.

(c) Director-General may waive the requirements set out in paragraph (b) where he has satisfied himself of the existence of a national emergency or any other circumstances of extreme urgency or in case of public non-commercial use

for the purposes such as national security, nutrition, health or for the development of others vital section of the national economy.

(d) The exploitation of the patent shall be limited in scope and duration to the purpose as is specified in the licence. Such exploitation shall be predominantly for the purpose of supply to the domestic market.

(e) The Director-General shall consider each application on its individual merits before granting a licence to exploit a patent.

(f) The issuance of a licence shall be non-exclusive and subject to the payment of adequate remuneration to the owner of the patent taking into consideration the economic value as determined by the Director-General, and where applicable, the need to correct anti-competitive practices.

(g) Where such application is for the exploitation of the patent (the second patent) which cannot be exploited without infringing another patent (the first patent), the following conditions shall apply :

- (i) the invention claimed in the second patent shall involve an important technical advance of considerable economic significance in relation to the invention claimed in the first patent ;
- (ii) the owner of the first patent shall be entitled to a cross licence on reasonable terms to exploit the invention claimed in the second patent ; and
- (iii) the exploitation authorized in respect of the first patent shall be non-assignable except with the assignment of the second patent.

(h) The decision of the Director-General, shall be notified in writing to the owner of the patent as soon as practicable.

(i) The Director-General, shall upon, the request of the owner or of the beneficiary of the licence, after hearing the parties, vary his decision by amending the terms subject to which licence for the exploitation of the patent is issued to the extent only that the changed circumstances justify such variation.

(j) The Director-General shall upon the request of the owner, terminate the non-voluntary license if he is satisfied that the circumstances which led to his decision have ceased to exist and are unlikely to recur or that the license has failed to comply with terms of such licence.

(k) Notwithstanding anything contained in paragraph, (j) the Director-General shall not terminate a licence, if he is satisfied that adequate protection of the legitimate interest of the beneficiary of the licence justifies the continuity of such licence.

(l) The licence to exploit a patent may be transferred only with the enterprise or the business of the licensee of such patent or with the part of such enterprise or business, in relation to which the licence to exploit has been granted.

(m) Where a judicial or administrative body has determined that the manner of exploitation of a patent by its owner or its licensee is anti-competitive, and the Director-General is satisfied that the exploitation of a patent in accordance with this section would remedy such practice, the Director-General may authorize any person, body of persons, government departments or statutory body to exploit the patent without a licence of the owner of the patent. The provisions of the above paragraphs except those of paragraphs (b), (c) and (g) shall be applicable to such licence.

(3) Any person aggrieved by any decision of the Director-General under subsection (2), may tender an appeal therefrom. The provisions of section 173 shall, *mutatis mutandis*, apply in respect of such appeal.

Rights derived from prior manufacture or use.

87. (1) Where a person at the filing date or, where applicable, the priority date, of the patent application—

- (a) was in good faith making the product or using the process in Sri Lanka which is the subject of the invention claimed in such application ;
- (b) had in good faith made serious preparations in Sri Lanka towards the making of the product or using the process referred to in paragraph (a),

he shall have the right, despite the grant of the patent, to exploit the patented invention :

Provided that the product in question is made, or the process in question is used by the said person in Sri Lanka :

Provided further, if the invention was disclosed under circumstances referred to in paragraph (a) or (b) of subsection (3) of section 64, he may prove, that his knowledge of the invention was not as a result of such disclosure.

(2) The right referred to in subsection (1) shall not be assigned or transmitted except as part of the business of the person concerned.

(3) The provisions of this section shall not affect the rights of any person to object to the grant of a patent on the ground that such invention is not patentable under sections 63, 64, 65 and 66 of the Act, or to seek relief under sections 68 and 99 of the Act.

CHAPTER XVI

ASSIGNMENT AND TRANSMISSION OF PATENT APPLICATIONS AND PATENTS

Assignment and transmission of patent applications and patents.

88. (1) A patent application or patent may be assigned or transmitted and such assignment or transmission shall be in writing signed by or on behalf of the contracting parties.

(2) Any person becoming entitled by assignment or transmission to a patent application or patent may apply to the Director-General in the prescribed manner to have such assignment or transmission recorded in the register.

(3) No such assignment or transmission shall be recorded in the register unless the prescribed fee has been paid to the Director-General.

(4) No such assignment or transmission shall have effect against third parties unless so recorded in the register.

89. In the absence of any agreement to the contrary between the parties, joint owners of a patent application or patent may, separately, assign or transmit their rights in the patent application or patent, exploit the patented invention and take action against any person exploiting the patented invention without their consent, but may only jointly withdraw the patent application, surrender the patent or conclude a licence contract.

Joint ownership of patent applications or patents.

CHAPTER XVII

LICENCE CONTRACTS

90. For the purposes of this Part licence contract means any contract by which the owner of a patent (hereinafter referred to as “the licensor”) grants to another person or enterprise (hereinafter referred to as the “the licensee”) a licence to do all or any of the acts referred to in paragraph (a) of subsection (1) and subsection (3) of section 84.

Interpretation.

91. (1) A licence contract shall be in writing signed by or on behalf of the contracting parties.

Form and record of licence contract.

(2) Upon a request in writing signed by or on behalf of the contracting parties, the Director-General shall, on payment of the prescribed fee, record in the register such particulars relating to the contract as the parties thereto might wish to have so recorded :

Provided that the parties shall not be required to disclose or have recorded any other particulars relating to the said contract.

Rights of licensee. **92.** In the absence of any provision to the contrary in the licence contract, the licensee shall—

- (a) be entitled to do all or any of the acts referred to in paragraph (a) of subsection (1) and subsection (3) of section 84 within the territory of Sri Lanka, without limitation as to time and through application of the patented invention ;
- (b) not be entitled to assign or transmit his rights under the licence contract or grant sub-licences to third parties.

Rights of the licensor. **93.** (1) In the absence of any provision to the contrary in the licence contract, the licensor may grant further licences to third parties in respect of the same patent or perform all or any of the acts referred to in paragraph (a) of subsection (1) and subsection (3) of section 84.

(2) Where the licence contract provides the licence to be exclusive, and unless it is expressly provided otherwise in such contract, the licensor shall not grant further licences to third parties in respect of the same patent or perform all or any of the acts referred to in paragraph (a) of subsection (1) and subsection (3) of section 84.

Invalid clauses in licence contracts. **94.** Any term or condition in a licence contract shall be null and void in so far as it imposes upon the licensee, in the industrial or commercial field, restrictions not derived from the rights conferred by this Part on the owner of the patent, or unnecessary for the safeguarding of such rights :

Provided that—

- (a) restrictions concerning the scope, extent or duration of exploitation of the patented invention, or the geographical area in or the quality or quantity of the products in connection with, which the patented invention may be exploited ; and

- (b) obligations imposed upon the licensee to abstain from all acts capable of prejudicing the validity of the patent,

shall not be deemed to constitute such restrictions.

95. Where, before the expiration of the licence contract, any of the following events occur in respect of the patent application or patent referred to in such contract—

Effect of patent application not being granted or patent being declared null and void.

- (a) the patent application is withdrawn ;
- (b) the patent application is finally rejected ;
- (c) the patent is surrendered ;
- (d) the patent is declared null and void ; or
- (e) the registration of the licence contract is invalidated,

the licensee shall no longer be required to make any payment to the licensor under the licence contract, and shall be entitled to repayment of the payments already made :

Provided that the licensor shall not be required to make any repayment, or repayment only in part, if he can prove that any such repayment would be inequitable under the circumstances, in particular if the licensee has effectively profited from the licence.

96. The Director-General shall—

Expiry, termination or invalidation of licence contract to be recorded.

- (a) if he is satisfied that a recorded licence contract has expired or been terminated, record that fact in the register upon a request in writing to that effect signed by or on behalf of the parties thereto ;
- (b) record in the register the expiry, termination or invalidation of a licence contract under any provision of this Part.

Licence contracts involving payments abroad.

97. (1) Where the Director-General has reasonable cause to believe that any licence contract or any amendment or renewal thereof—

- (a) which involves the payment of royalties abroad ; or
- (b) which by reason of other circumstances relating to such licence contract,

is detrimental to the economic development of Sri Lanka, he shall in writing communicate such fact to the Governor of the Central Bank and transmit all papers in his custody relevant to a decision on such matter to the Governor of the Central Bank.

(2) Where on receipt of any communication under subsection (1) the Governor of the Central Bank informs the Director-General in writing that the said licence contract or any amendment or renewal thereof is detrimental to the economic development of Sri Lanka, the Director-General shall cancel and invalidate the record of such contract in the register.

(3) The provisions of this section shall apply, *mutatis mutandis*, to assignments and transmissions.

(4) The provisions of this Chapter shall apply, *mutatis mutandis*, to sub-licence.

(5) The provisions of this Chapter shall have no application to a licence referred to in subsection (2) of section 86.

CHAPTER XVIII

SURRENDER AND NULLITY OF PATENT

Surrender of patent.

98. (1) The registered owner of a patent may surrender the patent by a declaration in writing signed by him or by any person authorized by him on his behalf and shall submit it to the Director-General.

(2) The surrender may be limited to one or more claims of the patent.

(3) The Director-General shall, on receipt of the said declaration record it in the register or cause it to be registered and shall cause such record to be published in the Gazette.

(4) The surrender shall take effect from the date of receipt of such declaration by the Director-General.

(5) Where a licence contract in respect of a patent is recorded in the register, the Director-General shall not, in the absence of provision to the contrary in such licence contract, accept or record the said surrender except upon receipt of a signed declaration by which every licensee or sub-licensee on record consents to the said surrender, unless the requirement of his consent is expressly waived in the licence contract.

99. (1) The Court may on the application of any person showing a legitimate interest, or of any Competent Authority including the Director-General, to which the owner of the patent and every assignee, licensee or sub-licensee on record shall be made party, declare the patent null and void on any one or more of the following grounds :—

Nullity of patent.

- (a) that what is claimed as an invention in the patent is not an invention within the meaning of subsection (1) of section 62, or is excluded from protection under subsection (3) of section 62, or subsection (1) of section 79, or is not patentable due to the failure to satisfy the requirements of sections 63, 64, 65 and 66 ; or
- (b) that the description or the claims, fails to satisfy the requirements of subsections (3) and (4) of section 71 ; or
- (c) that any drawings required for the understanding of the claimed invention have not been furnished ; or

- (d) that the right to the patent belongs to a person other than the person to whom the patent was granted :

Provided that the patent has not been assigned to the person to whom the right to the patent belongs.

(2) (a) Where the provisions of subsection (1) apply only to some of the claims or some parts of a claim, such claims or parts of a claim may be declared null and void by the court.

(b) The nullity of part of a claim shall be declared in the form of a corresponding limitation of the claim in question.

(3) (a) An assignee, licensee or sub-licensee, as the case may be, who has been made party to the application under subsection (1), shall be entitled to join in the proceedings in the absence of any provision to the contrary in any contract or agreement with the owner of the patent.

(b) Where the application to Court is on the ground referred to in paragraph (d) of subsection (1), the applicant shall give notice of the application to the person to whom the right to the patent is alleged to belong.

Date and effect of nullity.

100. (1) Upon a final decision of the Court declaring total or partial nullity of a patent, the patent shall be deemed to have been null and void, totally or partially, as the case may be, as from the date of the grant of such patent.

(2) When a declaration of nullity becomes final the Registrar of the Court shall notify the Director-General who shall record the said declaration in the register and cause it to be published in the Gazette.

PART V

CHAPTER XIX

MARKS AND TRADE NAMES

101. For the purposes of this Part, unless the context otherwise requires— Definitions.

“certification mark” means a mark indicating that the goods or services in connection with which it is used are certified by the proprietor of the mark in respect of origin, material, mode of manufacture of goods or performance of services, quality, accuracy or other characteristics ;

“collective mark” means any visible sign designated as such and serving to distinguish the origin or any other common characteristic of goods or services of different enterprises which use the mark under the control of the registered owner ;

“enterprise” means any business, industry or other activity carried on by an individual, partnership, company, or co-operative society wherever registered or incorporated and whether registered or not under any law for the time being in force relating to companies, co-operative societies or businesses engaged in or proposing to engage in any business and includes any business undertaking of the Government or any State Corporation whether carrying on business in Sri Lanka or otherwise ;

“false trade description” means a trade description which is false or misleading in a material respect as regards the goods or services to which it is applied, and includes every alteration of a trade description, whether by way of addition, effacement or otherwise, where that alteration makes the description false or misleading in a material respect,

and the fact that a trade description is a trade mark or part of a trade mark shall not prevent such trade description being a false trade description within the meaning of this Part ;

“geographical indication” means an indication which identifies any goods as originating in the territory of a country, or a region or locality in that territory, where a given quality, reputation or other characteristic of the good is essentially attributable to its geographical origin ;

“goods” means anything which is the subject of trade, manufacture or merchandise and includes services ;

“indication of source” means any expression or sign used to indicate that a product or service originates in a given country or group of countries, region, or locality ;

“mark” means a trade mark or service mark ;

“name” includes any abbreviation of a name ;

“person” means manufacturer, dealer, trader or owner and includes any body of persons, corporate or unincorporate ;

“service mark” means any visible sign serving to distinguish the services of one enterprise from those of an other enterprise ;

“trade description” means any description, statement or other indication, direct or indirect—

- (a) as to the number, quantity, measure, gauge, or weight of any goods ; or
- (b) as to the place or country in which any goods were made or produced ; or

- (c) as to the mode of manufacturing or producing any goods ; or
- (d) as to the material of which any goods are composed ; or
- (e) as to any goods being the subject of an existing copyright, related rights, industrial design or patent or any other matter protected under this Act ; or
- (f) as to the quality, kind or nature of the services ; or
- (g) as to the standard of quality of any goods, according to a classification commonly used or recognized in the trade ; or
- (h) as to the fitness for purpose, strength, performance or behaviour of any goods,

and the use of any figure, word or mark which, according to the custom of the trade, is commonly taken to be an indication of any of the above matters shall be deemed to be a trade description within the meaning of this Part ;

“trade mark” means any visible sign serving to distinguish the goods of one enterprise from those of another enterprise ; and

“trade name” means the name or designation identifying the enterprise of a natural or legal person.

CHAPTER XX

ADMISSIBILITY OF MARKS

Admissibility of marks.

102. (1) The exclusive right to a mark conferred by this Part shall be acquired, subject to the succeeding provisions, by registration.

(2) Registration of a mark may be granted to the person who—

(a) is the first to fulfill the conditions of a valid application ; or

(b) is the first to validly claim the earliest priority for his application :

Provided however such mark shall not be inadmissible under sections 103 and 104.

(3) A mark may consist in particular, of arbitrary or fanciful designations, names, pseudonyms, geographical names, slogans, devices, reliefs, letters, numbers, labels, envelopes, emblems, prints, stamps, seals, vignettes, selvedges, borders and edgings, combinations or arrangements of colours and shapes of goods or containers.

Marks inadmissible on objective grounds.

103. (1) A mark shall not be registered—

(a) which consists of shapes or forms imposed by the inherent nature of the goods or services or by their industrial function ;

(b) which consists exclusively of a sign or indication which may serve, in the course of trade, to designate the kind, quality, quantity, intended purpose, value, place of origin or time of production, or of supply, of the goods or services concerned ;

- (c) which consists exclusively of a sign or indication which has become, in the current language or in the *bona fide* and established practices of trade in Sri Lanka, a customary designation of the goods or services concerned ;
- (d) which, is incapable of distinguishing the goods or services of one enterprise from those of another enterprise ;
- (e) which consists of any scandalous design or is contrary to morality or public order or which, in the opinion of the Director-General or of any court to which the matter may be referred to, as the case may be, is likely to offend the religious or racial susceptibilities of any community ;
- (f) which is likely to mislead trade circles or the public as to the nature, the source, geographical indication the manufacturing process, the characteristics, or the suitability for their purposes, of the goods or services concerned ;
- (g) which does not represent in a special or particular manner the name of an individual or enterprise ;
- (h) which is, according to its ordinary signification, a geographical name or surname ;
- (i) which reproduces or imitates armorial bearings, flags or other emblems, initials, names or abbreviated names of any State or any inter-governmental international organization or any organization created by international convention, unless authorized by the Competent Authority of that State or international organization ;
- (j) which reproduces or imitates official signs or hall-marks of a State, unless authorized by the Competent Authority of that State ;

- (k) which resembles in such a way as to be likely to mislead the public, a mark or a collective mark or a certification mark the registration of which has expired and has not been renewed during a period of two years preceding the filing of the application for the registration of the mark in question or where its renunciation, removal or nullity has been recorded in the register during a period of two years preceding the filing of the application for the mark in question ;
- (l) the registration of which has been sought in respect of goods or services the trading of which is prohibited in Sri Lanka ;
- (m) which consists of any other word or definition as may be prescribed.

(2) The Director-General shall in applying the provisions of paragraphs (b), (c) , (d), (f), (g) and (h), of subsection (1), have regard to all the factual circumstances and, in particular, the length of time the mark has been in use in Sri Lanka or in other countries and the fact that the mark is held to be distinctive in other countries or in trade circles.

Marks
inadmissible by
reason of third-
party rights.

104. (1) The Director-General shall not register a mark —

- (a) which resembles, in such a way as to be likely to mislead the public, a mark already validly filed or registered by a third party, or subsequently filed by a person validly claiming priority, in respect of identical or similar goods or services in connection with which the use of such mark may be likely to mislead the public ;
- (b) which resembles, in such a way as to be likely to mislead the public, an unregistered mark used earlier in Sri Lanka by a third party in connection with identical or similar goods or services, if the applicant is aware, or could not have been unaware, of such use ;

- (c) which resembles, in such a way as to be likely to mislead the public, a trade name already used in Sri Lanka by a third party, if the applicant is aware, or could not have been unaware, of such use ;
- (d) if it is identical with, or misleadingly similar to, or constitutes or translation or transliteration or transcription of a mark or trade name which is well known in Sri Lanka for identical or similar goods or services of a third party, or such mark or trade name is well known and registered in Sri Lanka for goods or services which are not identical or similar to these in respect of which registration is applied for, provided in the latter case the use of the mark in relation to those goods or services would indicate a connection between those goods or services and the owner of the well known mark and that the interests of the owner of the well known mark are likely to be damaged by such use ;
- (e) which infringes other third party rights or is contrary to the provisions of Chapter XXXII relating to the prevention of unfair competition ;
- (f) which is filed by the agent or a representative of a third party who is the owner of such mark in another country, without the authorization of such owner, unless the agent or representative justifies his action.

(2) The following criteria shall be taken into account in determining whether a mark is well known :—

- (i) particular facts and circumstances relating to each mark ;
- (ii) any fact or circumstance from which it may be inferred that the mark is well known ;
- (iii) the degree of knowledge or recognition of the mark of the relevant sector of the public ;
- (iv) the duration, extent and geographical area of use of the mark ;

- (v) the duration, extent and geographical area of promotion of the mark, including advertising or publicity and the presentation at any fair or exhibition of the goods or services to which the mark applies ;
- (vi) the duration and geographical area of the registration or the application for registration, of the mark, to the extent that they reflect use or recognition of the mark ;
- (vii) the record of successful enforcement of rights in the mark, in particular, the extent to which the mark has been recognized as being well known, by the Competent Authority ;
- (viii) the value associated with the mark ;
- (ix) the criteria specified in this subsection to determine whether a mark is well known or not shall not be exclusive nor exhaustive ;
- (x) for the purpose of this subsection —
 - (a) “Competent Authority” means an administrative, judicial or quasi-judicial authority which is competent, to determine whether a mark is well known mark or to enforce the protection given to a well known mark ;
 - (b) “relevant sector of public” includes :—
 - (i) actual or potential consumers of the types of goods or services to which the mark applies ;
 - (ii) persons involved in channels of distribution of the types of goods or services to which the mark applies ;
 - (iii) any person or a body of persons dealing with the type of goods or services to which the mark applies.

(3) The Director-General shall, in applying the provisions of paragraphs (a) to (e) of subsection (1), have regard to the fact that the third parties referred to therein have consented to the registration of such mark.

105. There shall not be entered in the register a notice of any Trust expressed, implied, or constructive, nor shall any such notice be receivable by the Director-General.

Trust not to be entered in register.

CHAPTER XXI

REQUIREMENTS OF APPLICATION AND PROCEDURE FOR REGISTRATION

106. (1) An application for registration of a mark shall be made to the Director-General in the prescribed form and shall contain —

Requirements of application.

- (a) a request for the registration of the mark ;
- (b) the name, address of the applicant and, if he is resident outside Sri Lanka, a postal address for service in Sri Lanka ;
- (c) five copies of a representation of the mark ;
- (d) a clear and complete list of the particular goods or services in respect of which registration of the mark is requested, with an indication of the corresponding class or classes in the international classification, as may be prescribed.

(2) Where the application is filed through an agent, it shall be accompanied by a power of attorney granted to such agent by the applicant.

107. An applicant for registration of a mark who wishes to avail himself of the priority of an earlier application filed in a Convention country shall, within six months of the date of such earlier application, append to his application a written declaration indicating the date and number of the earlier application, the name of the applicant and the country in

Right of priority.

which he or his predecessor in title filed such application and shall, within a period of three months from the date of the later application filed in Sri Lanka, furnish a copy of the earlier application certified as correct by the appropriate authority of the country where such earlier application was filed.

Temporary protection of mark exhibited at international exhibition.

108. (1) An applicant for registration of a mark who has exhibited goods bearing the mark or rendered services under the mark at an official or officially recognized international exhibition and who applies for registration of the mark within six months from the date on which the goods bearing the mark or services under the mark were first exhibited or services respectively at such exhibition, shall on request, be deemed to have applied for registration of that mark on the date on which the goods bearing the mark or the services rendered under the mark were first exhibited or rendered at such exhibition.

(2) Evidence of the exhibition of the goods bearing the mark or the services rendered under the mark shall be by a certificate issued by the appropriate Authority of the exhibition stating the date on which the mark was first used at such exhibition in connection with such goods or services.

(3) The provisions of subsections (1) and (2) shall not extend to any other period of priority claimed by the applicant.

Application fee.

109. An application for registration of a mark shall not be entertained unless the prescribed fee has been paid to the Director-General.

Examination of application as to form.

110. (1) The Director-General shall examine whether the applicant for registration of the mark satisfies the requirements specified in sections 106 and 109 and where applicable the provisions of sections 107 and 108.

(2) Where the applicant fails to comply with the provision of sections 106 and 109, the Director-General shall refuse to register the mark :

Provided however the Director-General shall first notify the applicant of any defect in the application and shall afford him an opportunity to rectify such defect within three months from the date of receipt of such notification.

(3) The date on which the applicant rectifies such defect shall be deemed to be the date of receipt of the application for registration.

(4) Where the applicant fails to comply with the provisions of section 107 or 108, the Director-General shall not, in connection with the registration of the mark, make any reference to the priority claimed.

(5) Where the applicant complies with the provisions of sections 107 and 108, the Director-General shall in connection with the registration of the mark record the priority claimed or the date of the certified use of the mark at an international exhibition.

(6) Where the Director-General refuses to register a mark, he shall, if so requested by the applicant, state in writing the grounds of his decision.

111. (1) Where the applicant complies with the provisions of sections 106 and 109, the Director-General shall examine the mark in relation to the provisions of sections 103 and 104.

Registration of mark after further examination and publication of mark.

(2) Where the mark is inadmissible under section 103 or 104 the Director-General shall notify the applicant accordingly stating in writing the grounds on which registration of the mark is refused.

(3) Where the applicant is dissatisfied with all or any of the grounds stated by the Director-General in the notification referred to in subsection (2) he may, within a period of one month from the date of such notification, make his submissions against such refusal to the Director-General, in writing .

(4) On receipt of any submissions the Director-General may inform the applicant that he has been granted a hearing and the date, time and place of such hearing.

(5) The Director-General may, after such inquiry as he thinks fit, refuse to accept the application for registration of the mark, or may accept it absolutely or subject to conditions, amendments or modifications, or to such limitations, if any, as to the mode or place of user or otherwise as he may think fit to impose.

(6) In case of any refusal or conditional acceptance of an application for registration of a mark, the Director-General shall, if required by the applicant within a period of three months from such refusal or conditional acceptance, state in writing the grounds of his decision.

(7) Where the Director-General is of the opinion that the mark is admissible under section 103 or 104 he may request the applicant to pay the prescribed fee within a prescribed period for publication of the application.

(8) The Director-General shall refuse registration of the mark where the fee for publication of the application is not paid within the prescribed period.

(9) (a) If the fee for publication is paid within the prescribed period the Director-General shall proceed to publish the application setting out the date of application, the representation of the mark, the goods or services in respect of which registration of the mark is requested with an indication of the corresponding class or classes, the name and address of the applicant and, if the applicant is resident outside Sri Lanka, a postal address for service in Sri Lanka, the priority claimed, if any, or the date of certified use of the mark at an international exhibition.

(b) Notwithstanding the provisions of subsections (7), (8) and paragraph (a) of this subsection relating to the prescribed fee and the publication, the Director-General may, at his discretion, require the applicant by notice in writing to publish an application as referred to in paragraph (a) of this subsection. Where the applicant fails or neglects to publish such application within a period of three months from the date of such notice the application may be refused.

(10) Where any person considers that the mark is inadmissible on one or more of the grounds specified in section 103 or 104 he may, within a period of three months from the date of publication of the application, give to the Director-General in the prescribed form, and together with the prescribed fee, notice of opposition to such registration stating his grounds of opposition accompanied by evidence to substantiate such grounds.

(11) Where notice of opposition has not been received by the Director-General within the period specified in subsection (10) of this section, the Director-General shall register the mark.

(12) Where, within the period specified in subsection (10) of this section notice of grounds of opposition in the prescribed form is received by the Director-General, together with the prescribed fee, he shall serve a copy of such grounds of opposition on the applicant and shall request him to present his observations on those grounds in writing accompanied by evidence to support his application within a period of three months.

(13) On receipt of the observations of the applicant the Director-General shall after hearing the parties, if he considers such hearing necessary, decide, as expeditiously as possible, whether such mark should be registered or not. If the Director-General decides that the mark can be registered, then if —

- (a) no appeal is preferred against his decision, upon the expiry of the period within which an appeal may be preferred against his decision ;
- (b) an appeal is preferred against his decision, upon the determination of such appeal,

the Director-General shall accordingly register such mark.

(14) The Director-General may allow a reasonable extension of the prescribed period within which any act has to be done or any fee has to be paid under this section.

Non completion
of registration.

112. Where, by reason of default on the part of the applicant, the registration of a mark is not completed within twelve months from the date of receipt by the Director-General of the application, the Director-General shall, after giving notice of non-completion to the applicant in writing in the prescribed form, treat the application as abandoned, unless it is completed within the time specified in that behalf in such notice.

Register of marks
and issue of
certificate.

113. (1) The Director-General shall keep and maintain a register called the “Register of Marks” wherein shall be recorded in the order of their registration, all registered marks and such other matters relating to marks as are authorized or directed by this Part to be so recorded or may from time to time be prescribed.

(2) The registration of a mark shall include a representation of the mark and shall specify its number, the name and address of the registered owner and, if the registered owner’s address is outside Sri Lanka, a postal address for service in Sri Lanka, the dates of application and registration ; if priority is validly claimed, an indication of that fact and the number, date and country of the application on the basis of which the priority is claimed, if a valid certificate has been filed relating to the use of a mark at an international exhibition, the contents of such certificate, the list of goods and services in respect of which registration of the mark has been granted with an indication of the corresponding class or classes.

(3) Upon the registration of a mark the Director-General shall issue to the registered owner thereof a certificate of registration and shall, at the request of the registered owner, send such certificate to him by registered post to his last recorded postal address in Sri Lanka, or if he is resident outside Sri Lanka to his last recorded postal address in Sri Lanka.

114. The Director-General shall cause to be published in the Gazette, in the prescribed form, all registered marks in the order of their registration, including in respect of each mark so published reference to such particulars as may be prescribed.

Publication of registered marks.

115. Any person may examine the register and may obtain certified extracts therefrom on payment of the prescribed fee.

Examination of register and certified copies.

116. Where application is made for the registration of a mark identical with or so closely resembling a mark of the applicant already on the register for the same goods or services, the same description of goods or services as to be likely to mislead or cause confusion if used by a person other than the applicant, the Director-General may require as a condition of registration that such marks shall be entered on the register as associated marks.

Associated marks.

117. Associated marks shall be assignable or transmissible only as a whole and not separately, but they shall for all other purposes be deemed to have been registered as separate marks :

Assignment and user of associated marks.

Provided that where under the provisions of this Part user of a registered mark is required to be proved for any purpose, the Director-General may, in so far as is considered necessary accept the user of an associated registered mark, or of the mark, with additions or alterations not substantially affecting its identity, as an equivalent for such user.

CHAPTER XXII

DURATION OF REGISTRATION OF A MARK

118. (1) Subject and without prejudice to the other provisions of this Part, registration of a mark shall expire ten years after the date of registration of such mark.

Duration of registration.

(2) A mark when registered shall be registered with reference to the date of receipt of the application for registration by the Director-General, and such date shall be deemed for the purposes of this Part to be the date of registration.

Renewal.

119. (1) Registration of a mark may be renewed for consecutive periods of ten years each on payment of the prescribed fee.

(2) Renewal of registration of a mark shall not be subject to any further examination of the mark by the Director-General or to opposition by any person.

(3) The renewal fee shall be paid within the twelve months preceding the date of expiration of the period of registration :

Provided, however, that a period of grace of six months shall be allowed for the payment of the fee after the date of such expiration, upon payment of such surcharge as may be prescribed.

(4) The Director-General shall record in the register and cause to be published in the Gazette in the prescribed form all renewals of registration specifying any removal from the lists of goods or services.

(5) Where the renewal fee has not been paid within such period or such extended period specified in subsection (3), the Director-General shall remove the mark from the register.

Alteration of
registered mark.

120. The registered owner of any mark may apply in the prescribed manner and with prescribed fee to the Director-General for leave to add to or alter such mark in any manner not substantially affecting the identity of the same, and the Director-General may refuse such leave or may grant the same on such terms and subject to such limitations as to mode or place of use as he may think fit. If leave be granted, the mark as altered shall be published in the prescribed manner.

CHAPTER XXIII

RIGHTS OF THE REGISTERED OWNER OF A MARK

121. (1) Subject and without prejudice to the other provisions of this Part, the registered owner of a mark shall have the following exclusive rights in relation to the mark :—

Rights of
registered owner.

- (a) to use the mark ;
- (b) to assign or transmit the registration of the mark ;
- (c) to conclude licence contracts.

(2) Without the consent of the registered owner of the mark third parties are precluded from the following acts :—

- (a) any use of the mark, or a sign resembling it in such a way as to be likely to mislead the public, for goods or services in respect of which the mark is registered or for similar goods or services in connection with which the use of the mark or sign is likely to mislead the public ; and
- (b) any other use of the mark, or of a sign or trade name resembling it, without just cause and in conditions likely to be prejudicial to the interests of the registered owner of the mark.

(3) The application (whether by way of printing, painting or otherwise) or the affixing in Sri Lanka by a third party, of a mark or any sign resembling such mark in such a way as to be likely to mislead the public, on or in connection with, goods in respect of which such mark has been registered (whether such goods are intended for sale in Sri Lanka, or for export from Sri Lanka) shall be deemed to be an act prohibited under Subsection (2).

(4) The court shall presume the likelihood of misleading the public in instances where a person uses a mark identical to the registered mark for identical goods or services in respect of which the mark is registered.

Limitation of registered owners's rights.

122. The registration of the mark shall not confer on its registered owner the right to preclude third parties –

- (a) from using their *bona fide* names, addresses, pseudonyms, a geographical name, or exact indications concerning the kind, quality, quantity, destination, value, place of origin or time of production or of supply of their goods and services, in so far as such use is confined to the purposes of mere identification or information and cannot mislead the public as to the source of the goods or services ;
- (b) from using the mark in relation to goods lawfully manufactured, imported, offered for sale, sold, used or stocked in Sri Lanka under that mark, provided that such goods have not undergone any change.

CHAPTER XXIV

ASSIGNMENT AND TRANSMISSION OF APPLICATIONS AND REGISTRATIONS OF MARKS

Assignment and transmission of applications and registrations.

123. (1) An application for registration or the registration of a mark may be assigned or transmitted independently of the transfer of all or part of the enterprise using the mark, in respect of all or part of the goods or services for which the application was filed or the mark registered and such assignment or transmission shall be in writing signed by or on behalf of the contracting parties.

(2) Such assignment or transmission shall be invalid if the purpose or effect thereof is to mislead the public, in particular in respect of the nature, source, manufacturing process, characteristics or suitability for their purpose of the goods or services to which the mark is applied.

(3) Any person becoming entitled by assignment or transmission to an application for registration or the registration of a mark may apply to the Director-General in the prescribed manner to have such assignment or transmission recorded in the register.

(4) No such assignment or transmission shall be recorded in the register unless the prescribed fee has been paid to the Director-General.

(5) No such assignment or transmission shall have effect against third parties unless so recorded in the register.

CHAPTER XXV

LICENCE CONTRACTS

124. (1) For the purposes of this Part licence contract means any contract by which the registered owner of a mark (hereinafter referred to as “the licensor”) grants to another person or enterprise (hereinafter referred to as “the licensee”) a licence to use the mark for all or part of the goods or services in respect of which the mark is registered. Interpretation.

(2) Use of the mark by the licensee shall be deemed to be use of the mark by the registered owner.

125. (1) A licence contract shall be in writing signed by or on behalf of the contracting parties. Form and record of licence contract.

(2) Upon a request in writing signed by or on behalf of the contracting parties, the Director-General shall, on payment of the prescribed fee, record in the register such particulars relating to the contract as the parties thereto might wish to have recorded :

Provided that the parties shall not be required to disclose or have recorded any other particulars relating to such contract.

126. In the absence of any provision to the contrary in the licence contract, the licensee shall – Rights of licensee.

- (a) be entitled to use the mark within the territory of Sri Lanka, during the entire period of registration of the mark, including renewals, in respect of all the goods or services for which the mark is registered ;

- (b) not be entitled to assign or transmit his rights under the licence contract or grant sub-licences to third parties.

Rights of licensor.

127. (1) In the absence of any provision to the contrary in the licence contract, the licensor may grant further licences to third parties in respect of the same mark or himself use the mark.

(2) Where the licence contract provides the licence to be exclusive, the licensor shall not grant further licences to third parties in respect of the same mark or himself use the mark unless the contract otherwise provides.

Nullity of licence contract and certain clauses.

128. (1) A licence contract shall be null and void in the absence of stipulations ensuring effective control by the licensor of the quality of the goods or services in respect of which the mark may be used.

(2) Any clause or condition in a licence contract shall be null and void in so far as it imposes upon the licensee restrictions not derived from the rights conferred by this Part on the registered owner of the mark, or which are unnecessary for the safeguarding of such rights :

Provided that –

- (a) restrictions concerning the scope, extent, duration of use of the mark or the geographical area in or the quality or quantity of the goods or services in connection with which the mark may be used ;
- (b) restrictions justified by the stipulations referred to in subsection (1) ; and
- (c) obligations imposed upon the licensee to abstain from all acts capable of prejudicing the validity of the registration of the mark,

shall not be deemed to constitute a restrictions as mentioned above.

129. The Court may on the application of any person showing a legitimate interest, or of any Authority including the Director-General, to which the registered owner of the mark and every assignee, licensee or sub-licensee on record shall be made party, annul and cancel the said contract if—

Cancellation of
licence contracts.

- (a) the licensor has lost effective control over the quality of the goods or services in respect of which the mark is used ;
- (b) the licensee has used the mark in such a way as to mislead or confuse the public.

130. (1) Where the Director-General has reasonable cause to believe that any licence contract or any amendment or renewal thereof –

Licence contracts
involving
payments abroad.

- (a) which involves the payment of royalties abroad ; or
- (b) which by reason of other circumstances relating to such licence contract,

is detrimental to the economic development of Sri Lanka he shall in writing communicate such fact to the Governor of the Central Bank and transmit all papers in his custody relevant to a decision on such matter, to the Governor of the Central Bank.

(2) Where the Governor of the Central Bank on receipt of any communication under subsection (1) informs the Director-General in writing that the said licence contract or any amendment or renewal thereof is detrimental to the economic development of Sri Lanka the Director-General shall cancel and invalidate the record of such contract in the register.

(3) The provisions of this section shall, *mutatis mutandis*, apply to assignments and transmissions.

(4) The provisions of this Chapter shall, *mutatis mutandis*, apply to sub-licences.

Effect of nullity of registration on licence contract.

131. Where, before the expiration of the licence contract, the registration is declared null and void, the licensee shall no longer be required to make any payment to the licensor under the licence contract, and shall be entitled to repayment of the payments already made :

Provided that the licensor shall not be required to make any repayment, or shall be required to make repayment only in part, to the extent that he can prove that any such repayment would be inequitable under all the circumstances, in particular if the licensee has effectively profited from the licence.

Expiry, termination or invalidation of licence contract.

132. The Director-General shall –

- (a) if he is satisfied that a licence contract recorded under subsection (2) of section 125 has expired or been terminated, record that fact in the register upon a request made in writing to that effect signed by or on behalf of the parties thereto ;
- (b) record in the register the expiry, termination, annulment or invalidation of a licence contract under any provision of this Part.

CHAPTER XXVI

RENUNCIATION AND NULLITY OF REGISTRATION OF A MARK

Renunciation of registration.

133. (1) The registered owner of a mark may renounce the registration, either wholly or in respect of part of the goods or services for which the mark is registered, by a declaration in writing signed by him or on his behalf and forwarded to the Director-General.

(2) The Director-General shall, on receipt of the said declaration, record it in the register and cause such record to be published in the Gazette.

(3) The renunciation shall take effect from the date that the Director-General receives the said declaration.

(4) Where a licence contract in respect of a mark is recorded in the register the Director-General shall not, in the absence of provision to the contrary in such licence contract, accept or record the said renunciation except upon receipt of a signed declaration by which any assignee, licensee or sub-licensee on record consents to the renunciation, unless his consent is expressly waived in the licence contract.

134. (1) The Court may on the application of any person showing a legitimate interest, or of any competent Authority including the Director-General, to which the registered owner of the mark and every assignee, licensee or sub-licensee on record shall be made party, declare the registration of the mark null and void if its registration is precluded under the provisions of sections 103 and 104 :

Nullity of registration.

Provided, however, that grounds of nullity which do not exist on the date of the application to Court, shall not be taken into account.

(2) Where the grounds for nullity of registration of the mark exist in respect of only part of the goods or services for which the mark is registered, nullity of the registration shall be declared for that part only for such goods or services.

(3) An application for a declaration of nullity based on any of the grounds specified in subsection (1) of section 104 shall be made within five years from the date of issue of the certificate of registration under subsection (3) of section 113.

135. (1) Upon a final decision of the Court declaring total or partial nullity of registration of a mark, the registration shall be deemed to have been null and void totally or partially, as the case may be, from the date of such registration.

Date and effect of nullity.

(2) When a declaration of nullity becomes final the Registrar of the Court shall notify the Director-General of such fact and he shall record the said declaration in the register and cause it to be published in the Gazette.

CHAPTER XXVII

REMOVAL OF MARK

Removal of mark.

136. (1) The Court may on the application of any person showing a legitimate interest, or of any Competent Authority including the Director-General, to which the registered owner of the mark and every assignee, licensee or sub-licensee on record shall be made party, remove any registered mark from the register—

- (a) if the registered owner has, without valid grounds, failed to use the mark within Sri Lanka or cause it to be used within Sri Lanka by virtue of a licence, during five consecutive years immediately preceding the date of the application to Court ;
- (b) if the registered owner has caused, provoked or tolerated the transformation of the mark into a generic name for one or more of the goods or services in respect of which the mark is registered so that in trade circles and in the eyes of the public its significance as a mark has been lost.

(2) In any application under paragraph (a) of subsection (1) the Court may take into account the fact that non-use of the mark was due to circumstances beyond the control of the registered owner. The Court shall not take into account the lack of funds of the registered owner as a ground for non-use of the mark.

(3) The use of a mark—

- (a) in a form differing, in elements which do not alter the distinctive character of the mark, from the form in which it was registered, shall not be a ground for removal of the mark ;
- (b) in connection with one or more of the goods or services belonging to any given class in respect of which the mark is registered, shall suffice to prevent the removal of the mark in respect of all the other goods or services of the same class.

137. Upon a final decision of the Court in respect of removing any registered mark from the register—

Date and effect of removal of mark.

- (1) the Court may, taking into account the date of the events and other circumstances which occasioned the removal of the mark, determine the date on which the registration of the mark shall be deemed to have ceased to have any legal effect ;
- (2) the Registrar of the Court shall communicate the decision of the Court to the Director-General who shall, if the Court decides that the mark be removed, enter in the register a record of such removal and cause the decision of Court to be published in the Gazette.

CHAPTER XXVIII

COLLECTIVE MARKS

138. (1) Subject to the provisions of this Chapter the provisions relating to marks shall apply to collective marks.

Collective marks.

(2) In relation to a collective mark, the reference in section 101 (signs of which a trade mark or service mark may consist) to distinguish goods or services of one enterprise from those of other enterprises shall be construed as a reference to distinguish goods or services of the enterprise which uses the collective mark from those of other enterprises.

(3) Notwithstanding the provisions of section 103 a collective mark may be registered which consists of a sign or indication which may serve, in trade, to indicate the geographical origin of the goods or services :

Provided, however, the owner of such a mark shall not be entitled to prohibit the use of such sign or indication in accordance with honest practices in industrial or commercial matters and in particular, by a person who is entitled to use a geographical name.

Application for
registration of
collective marks.

139. (1) An application for registration of a collective mark shall not be entertained unless in such application the mark is designated as a collective mark and the application is accompanied by a copy of conditions governing the use of the mark duly certified by the applicant.

(2) The conditions governing the use of the mark under subsection (1) shall define the common characteristics or quality of the goods or services which the collective mark shall designate, the conditions in which, and the person by whom it may be used, the exercise of effective control of the use of the mark and proper sanctions against the use of the mark contrary to such conditions. They shall contain further prescribed requirements under this section.

(3) A collective mark shall not be registered unless the conditions governing the use of the mark—

(a) comply with the provisions of subsection (2) and any requirement imposed by any regulation made thereunder ;

(b) are not contrary to public policy or accepted principles of morality.

(4) (a) An authorised user shall, subject to any agreement to the contrary between him and registered owner of the collective mark, be entitled to require the owner to take infringement proceedings in respect of any matter which affects his interests.

(b) If the owner—

(i) refuses to do so ; or

(ii) fails to do so within two months after being called upon to do so,

the authorised user may bring the proceedings in his own name as if he was the owner. The registered owner shall be made party to the action.

(c) In infringement proceedings brought by the owner of a registered collective mark, any loss suffered or likely to be suffered by any authorised user shall be taken into consideration by Court.

(5) The registration of the collective mark may be removed on the following grounds in addition to the grounds specified in section 136 :—

- (i) that the manner in which the mark has been used by the owner has caused it to become liable to mislead the public to understand or think that the mark has state patronage ;
- (ii) that the owner has failed to observe, or to secure the observance of, the conditions governing use of the mark ; or
- (iii) that an amendment of the conditions has been made so that the conditions—
 - (a) no longer comply with subsection (2) and any other condition imposed by regulation made under this Act ; or
 - (b) are contrary to public policy or to the accepted principles of morality.

(6) The registration of a collective mark shall be declared null and void in addition to the grounds of nullity specified in section 134 if it was registered in violation of the provisions of subsections (1), (2) and (3) of section 139.

140. (1) Registration of a collective mark shall be in such Part of the register as the Director-General may decide and a copy of the conditions governing the use of the mark shall be appended to the registration.

Registration and publication of collective marks.

(2) The publication of an application for a collective mark in accordance with subsection (9) of section 111 shall include a summary of the conditions to be appended to the registration.

(3) When a collective mark, is registered under subsection (1) it shall be deemed in all respects to be a registered mark.

(4) The conditions governing the use of a registered collective mark shall be open for public inspection in the same way as the register.

Changes in condition governing the use of collective marks.

141. (1) The registered owner of a collective mark shall notify the Director-General in the prescribed manner of any change or amendments effected in the conditions governing the use of the collective mark.

(2) Any notification of such change or amendment shall be recorded in the register on payment of the prescribed fee. Any such change or amendment in the condition shall be effectual only if they have been recorded.

(3) The Director-General shall cause a summary of such changes and amendments made in the conditions and recorded under subsection (2) to be published in the Gazette.

CHAPTER XXIX

CERTIFICATION MARKS

Certification marks.

142. (1) Subject to the provisions of this Chapter, provisions relating to marks shall apply to certification marks.

(2) In relation to a certification mark the reference in section 101 (signs of which a trade mark or service mark may consist) to distinguish goods or services of one enterprise from those of another enterprise shall be construed as a reference to distinguish goods or services which are certified from those which are not certified.

(3) Notwithstanding the provisions of section 103, a certification mark which consists of a sign or indication which may serve in trade to designate the geographical origin of the goods and services may be registered :

Provided, however, the owner of such mark is not entitled to prohibit the use of such sign or indication in accordance with honest practices in industrial or commercial matters and in particular by a person who is entitled to use a geographical name.

(4) An application for registration of a certification mark shall not be filed unless in the application the mark is designated as a certification mark and is accompanied by a copy of the conditions governing the use of the mark duly certified by the applicant.

(5) The conditions shall indicate the name of the person authorised to use the mark, the characteristics to be certified by the mark, how the owner is to test those characteristics and to supervise the use of the mark, the fees (if any) to be paid in connection with the operation of the mark and the procedures for resolving disputes. They may in addition contain further prescribed requirements under this section.

(6) A certification mark shall not be registered—

(a) if the owner of the certification mark carries on a business involving the supply of goods or services of the kind certified ; and

(b) unless the conditions governing the use of the mark,—

(i) comply with the provisions of subsection (5) and any other requirement imposed by regulations made under that subsection ; and

(ii) are not contrary to public policy or accepted principles of morality.

(7) In infringement proceedings brought by the owner of the registered certification mark any loss suffered, or likely to be suffered, by any authorised user shall be taken into account ; and the Court may give such directions as it thinks fit as to the extent to which the owner is to hold the proceeds of any pecuniary remedy on behalf of such users.

(8) Apart from the grounds of removal of a mark provided for in section 136, the registration of a certification mark may be removed on the ground—

- (a) that the owner has commenced such a business as is mentioned in paragraph (a) of subsection (6) ;
- (b) that the manner in which the mark has been used by the owner has caused it to become liable to mislead the public as to the character of significance of the mark ;
- (c) that the owner has failed to observe, or to secure observance of, the conditions governing the use of the mark ;
- (d) that the owner is no longer competent to certify the goods or services for which the mark is registered ;
- (e) that an amendment of the conditions have been made so that the conditions—
 - (i) no longer comply with the provisions of subsection (5) and any other condition imposed by regulations ;
 - (ii) are contrary to public policy and order or to the accepted principles of morality.

(9) Apart from the grounds of nullity provided in section 134 the registration of a certification mark may be declared null and void if it was registered contrary to the provisions of subsections (3), (4) and (5).

(10) (a) Registration of a certification mark shall be in such part of the register as the Director-General may decide, and a copy of the conditions, governing the use of the mark, shall be appended to such registration.

(b) The publication of an application of a certification mark shall be in accordance with subsection (9) of section 111, which shall include a summary of the conditions to be appended to the registration.

(c) A certification mark registered under subsection (4) shall be deemed for all purposes be a registered mark.

(d) The conditions governing the use of a certification mark shall be open for public inspection in the same manner as the register.

(11) (a) The registered owner of a certification mark shall notify the Director-General in prescribed manner of any changes or amendments effected to the conditions governing the use of the mark.

(b) Any notification of such changes and amendments shall be recorded in the register on the payment of prescribed fee. Any change or amendment of conditions shall come into force only if they have been so recorded.

(c) The Director-General shall cause to be published in the Gazette a summary of the changes or amendments so recorded in the register.

PART VI

CHAPTER XXX

TRADE NAMES

143. A name or designation shall not be admissible as a trade name if, by reason of its nature or the uses to which it may be put, it is contrary to morality or public order or is likely to offend the religious or racial susceptibilities of any community or is likely to mislead trade circles or the public as to the nature of the enterprise identified by that name.

Prohibited trade names.

Protection of
trade name.

144. (1) Notwithstanding the provisions of any written law providing for the registration of a trade name, such name shall be protected, even prior to or without registration, against any unlawful act committed by a third party.

(2) Any subsequent use of a trade name by a third party, whether as a trade name or as a trade mark, service mark, collective mark or certification mark or any such use of similar trade name, trade mark, service mark or collective mark or certification mark likely to mislead the public shall be deemed to be unlawful.

(3) Section 122 of this Act shall apply to trade names.

Assignment and
transmission of
trade names.

145. (1) A trade name may be assigned or transmitted together with the assignment or transmission of the enterprise or part of the enterprise identified by that name.

(2) The provisions of section 123 shall apply, *mutatis mutandis*, to trade names.

PART VII

CHAPTER XXXI

LAYOUT DESIGNS OF INTEGRATED CIRCUITS

Right to
protection.

146. (1) The right to protection of a layout design shall belong to the creator of layout design. Where several persons have jointly created a layout design such persons shall be co-owners of the right to protection.

(2) The right to protection of a layout design made or created in the performance of a contract of employment or in the execution of a work shall, unless the terms of such contract of employment or contract for the execution of such work otherwise provides, belong to the employer or the person who commissioned the work, as the case may be.

147. (1) The protection provided under this Act shall apply to any layout design which is original. For the purposes of this section a layout design is original if —

Originality.

- (a) it has not been produced by the mere reproduction of another layout design or of any substantial part thereof; and
- (b) it is the result of an intellectual effort of a creator and is not common place among creators of layout designs and manufacturers of integrated circuits at the time of the creation of such layout design.

(2) Where a layout design consists of a combination of elements and interconnections that are common place among creators of layout designs or manufacturers of integrated circuits, such layout designs shall be protected only if the combination, taken as a whole, meets the conditions referred to in subsection (1).

148. (1) The protection afforded to a layout design under this Part shall not be dependent on the integrated circuit which incorporates such layout design being incorporated in an article. Subject to the provisions of subsection (2) the right holder of a layout design shall have the exclusive right to do or authorize any person to do any of the following acts :—

Scope of protection.

- (i) to reproduce whether by incorporation in an integrated circuit or otherwise, the protected layout design in its entirety or any part thereof, except the act of reproducing any part that does not comply with the requirement of originality referred to in subsections (1) and (2) of section 147.
- (ii) to import, offer for sale, sell or otherwise distribute for commercial purposes, the protected layout design or an integrated circuit in which the protected layout design is incorporated or an article incorporating such an integrated circuit in so far as it does not contain an unlawfully reproduced layout design.

(2) The scope of the protection of a layout design afforded by this Part, shall not extend to—

- (i) the reproduction of the protected layout design for the purpose of evaluation, analysis, research or non profit teaching or education ;
- (ii) the incorporation in an integrated circuit of a layout design, created on the basis of such analysis, evaluation or research referred to in paragraph (i), if such layout design is itself original within the meaning of subsections (1) and (2) of section 147, or for the performance of any of the acts referred to in subsection (1) of this section in respect of such layout design ;
- (iii) the performance of any of the acts referred to in paragraph (ii) of subsection (1), where the act is performed in respect of a protected layout design, or in respect of an integrated circuit in which such layout design is incorporated, and such layout design or integrated circuit has been put on the market by, or with the consent of, the right holder; or
- (iv) the performance of any act referred to in paragraph (ii) of subsection (1) in respect of an integrated circuit incorporating an unlawfully reproduced layout design or any article incorporating such an integrated circuit, where the person performing or ordering such an act unknowingly performs or orders such an act and has no reasonable grounds of knowing at the time of acquiring the integrated circuit or the article incorporating such an integrated circuit, that it incorporated an unlawfully reproduced layout design :

Provided however, where the person performing or ordering any act under this paragraph, is notified that such layout design is an unlawful reproduction, then such person may, perform or order any act only

with respect to the stock in hand or ordered before he was so notified and shall be liable to pay to the right holder a sum equivalent to a reasonable royalty such as would be payable under a freely negotiated licence in respect of such layout design; or

- (v) protection under this Part shall not be available for any layout design which has been commercially exploited in or outside Sri Lanka for more than two years prior to the commencement of this Act.

149. (1) Protection of a layout design under this Act shall commence—

Commencement and duration of protection.

- (i) on the date of the first commercial exploitation in or outside Sri Lanka of the layout design by, or with the consent of the right holder, provided an application for protection is filed by the right holder with the Director-General within the time specified in subsection (2) of section 150 ; or
- (ii) on the filing date accorded to the application for the registration of the layout design filed by the right holder, if the layout design has not been previously exploited commercially in or out side Sri Lanka.

(2) Protection of a layout design under this Part shall terminate at the end of the tenth calendar year from the date of commencement of such protection.

150. (1) The application for the registration of a layout design shall be in the prescribed form, and shall be accompanied by the prescribed fee and shall be filed in the Office. A separate application shall be filed in respect of each different layout design.

Requirements of the Application.

(2) Any person may apply for registration of a layout design if such layout design has not been commercially exploited, or if exploited, in or outside Sri Lanka the application for registration shall be made before the expiry of a period of two years from the date of such exploitation.

- (3) The application shall—
- (a) contain a request for the registration of the layout design in the Register of Layout Designs and a brief and precise description thereof ;
 - (b) specify the name, address, nationality of the applicant, and if he is resident outside Sri Lanka a postal address for service in Sri Lanka ;
 - (c) be accompanied by a copy of a drawing of the layout design along with information defining the electronic function which the integrated circuit is intended to perform ; however, the application may omit such parts in the copy or drawing that relate to the manner or manufacture of the integrated circuit, provided that the parts submitted are sufficient to allow the identification of the layout design ;
 - (d) specify whether the layout design is exploited in or outside Sri Lanka and the date of its first commercial exploitation, if any ;
 - (e) provide particulars establishing the right to protection under section 146 ;
 - (f) be accompanied by a declaration as to the originality of the layout design ;
 - (g) be accompanied by a power of attorney granted to the agent by the applicant, where the application is made through an agent.

(4) (a) Where the applicant fails to comply with the requirements specified in subsection (3) of this section the Director-General shall, notify the applicant of the same and require him to correct the defect made in the application within a period of two months from the date of such notification.

(b) Where the applicant complies with such requirements specified in paragraph (a) of this subsection, the Director-General shall accord the date of filing as the date of receipt of the application :

Provided however, such application should contain written statement of the need for the registration of the layout design, and information whereby the identity of the applicant can be established and shall be accompanied by a copy of the drawings of the layout design.

(c) Where the applicant fails to submit drawings of a layout design with the original application, but corrects the application for the registration of the layout design within the period specified in paragraph (a), the date of receipt of the corrections shall be deemed to be the date of filing of the application. The Director-General shall by a written communication confirm the filing date of the application to the applicant.

(d) Where the applicant fails, after notification by the Director-General, to correct the application within the period specified in paragraph (a), such application shall be deemed not to have been filed.

151. (1) The Director-General shall maintain a Register of Layout Designs and he shall register or cause to be registered of each protected layout design, in respect of which applications for registration have been accepted.

Registration of layout design in the Register.

(2) Where any application conforms to the requirements of section 150, the Director-General shall register the layout design in the Register of Layout Designs without examination of the originality of the layout design, the applicant's right to protection or the correctness of the facts stated in the application.

(3) The Register of Layout Designs shall contain the number, title, filing date and where indicated in the application under section 150 the date of first commercial exploitation in or outside Sri Lanka of the layout design as well as the name and address of the right holder, details relating to assignment, transfer, license contract and other prescribed particulars.

(4) Any person may refer the Register of Layout Designs and obtain extracts therefrom, subject to the payment of the prescribed fee.

(5) Every registration of a layout design shall be published in the Gazette.

Right to transfer
and rectification
of the Register.

152. (1) Where the essential elements of a layout design has been taken from a layout design of another person without his consent in writing, the second mentioned person may, in writing together with all relevant material necessary to substantiate his claim and the prescribed fee, request the Director-General to transfer the application to him. Where the application has already been registered the second mentioned person may, within one year from the date of publication of such registration write to the Director-General together with all relevant material necessary to substantiate his claim and the prescribed fee, requesting the Director-General to transfer the registration to him and to rectify the entry in the register accordingly.

(2) The Director-General shall forthwith send a copy of such request to the applicant or registered right holder, as the case may be, requiring him to furnish him with a counter claim within a period of two months from the date of such notice in the prescribed manner together with any material if any in his possession to prove his ownership of the layout design in question and the prescribed fee. The applicant or the registered right holder may send the Director-General a counter claim.

(3) Where the registered right holder or the applicant fails to provide any information as required under subsection (2) of this section, within the period specified, the Director-General shall allow the request of the second mentioned person and rectify the entry in the register.

(4) If the applicant or the right holder sends a counter-claim, as provided in subsection (2), the Director-General shall after hearing both parties and taking into consideration the merits of the case, shall make his determination and notify the parties of his determination.

(5) Where after the filing of the application the person to whom the right to protection belongs, gives his consent to the filing of that application, such consent shall, for all purposes, be deemed to be effective from the date of filing of such application.

153. (1) A protected layout design may be assigned or transmitted and such assignment or transmission shall be in writing, signed by or on behalf of the contracting parties.

Changes in the ownership and contractual licenses.

(2) Upon a request in writing signed by or on behalf of the assignor or transferor of the layout design the Director-General shall on payment of the prescribed fee, record in the register such particulars of change of ownership and publish such change. Such change shall have no effect against third parties until such recording is made.

(3) The right holder of layout design may grant a licence to another person or enterprise authorizing it to do any or all of the acts referred to in subsection (1) of section 148. Such license contract shall be in writing and signed by or on behalf of the contracting parties. Such license contract shall upon registration of the layout design be submitted to the Director-General together with prescribed fee, who shall record or cause to be recorded the existence of such license contract in the register. A license contract shall have no effect against third parties until it is so recorded.

154. (1) Any person interested in a layout design registered under section 151, or an appropriate Authority including the Director-General may file an application in the Court, for the cancellation of such registration on the following grounds :—

Cancellation of a Registration of a layout design.

(a) that the layout design is not protected under sections 147 ;

- (b) that the right holder is not entitled to protection under section 146; or
- (c) that the layout design has been commercially exploited in or out side Sri Lanka, before the filing of the application for registration of the layout design, and the application was not filed within the time limit specified in subsection (2) of section 148 and subsection (2) of section 150.

(2) On the establishment of grounds for cancellation of a part of a layout design, the registration applicable to such corresponding part only of the layout design, shall be cancelled.

(3) The Court may on an application made to it in writing by an interested party or any appropriate Authority including the Director-General, and where the registered owner of the layout design and every assignee, licensee or sub-licensee on record shall be made party, make order for the cancellation or partial cancellation of such registration.

(4) Any cancellation of a registration of layout design or part thereof, shall have the effect of making null and void the registration of a layout design or part thereof as the case may be, and as such it shall be effective from the date of commencement of the protection of such layout design.

(5) The Court shall notify the Director-General of its decision and the Director-General shall record such decision and publish a notice to that effect, in the Gazette.

Representation by
an Agent.

155. Where the ordinary residence, or principal, of the applicant place of business, of the applicant is outside Sri Lanka, he shall be represented by an agent registered under section 175 of the Act.

Infringement.

156. (1) Infringement shall consist of the performance of any act in contravention of the provisions of section 148.

(2) The Court may grant an injunction, award damages or grant any other proper remedy —

(a) to a right holder to prevent an infringement or imminent infringement if he makes an application having reason to believe that a layout design has been made infringing the rights protected under section 148 of the Act ; or

(b) to a licensee, where the licensee makes an application to court, in the event of the right holder failing or neglecting to make an application to Court on his being made aware of such infringement by the licensee.

(3) The provisions of Chapter XXXV of this Act shall apply in respect of an infringement and the remedies available to a right holder or a licensee.

(4) Any action under subsection (2) may be initiated only after an application for registration of the layout design being filed with the Director-General.

157. Any person who, knowingly or intentionally contravenes the provisions of section 148, shall be guilty of an offence, and shall on conviction after trial before a Magistrate be liable to a fine not exceeding rupees five hundred thousand or to imprisonment of either description for a term not exceeding six months or to both such fine and imprisonment and in the case of a second or subsequent conviction such fine or term of imprisonment or both such fine and imprisonment may be doubled. The Court may in addition order the seizure, forfeiture and destruction of the layout design, integrated circuits, articles or any material or implement, which have been used for or in the commission of the offence.

Offences.

158. The provisions of sections 125A and 125B of the Customs Ordinance and sections 163 to 174, 177, 180, 187, 191, 195 to 204 of the Act shall apply to and in relation to the layout designs of integrated circuits.

Application of certain provisions of the Act.

Interpretation.

159. In this Part unless the context otherwise requires—

“integrated circuit” means a product, in its final form or an intermediate form, in which the elements, at least one of which is an active element, and some or all of the interconnections are integrally formed in or on a piece of material and which is intended to perform an electronic function ;

“layout design” is synonymous with “topography” and means the three dimensional disposition, however expressed, of the elements, at least one of which is an active element, and of some or all of the interconnections of an integrated circuit, or such a three-dimensional disposition prepared for an integrated circuit intended for manufacture ;

“right holder” means the natural person who, or the legal entity which, is to be regarded as the beneficiary of the protection referred to in section 146.

PART VIII

CHAPTER XXXII

UNFAIR COMPETITION AND UNDISCLOSED INFORMATION

Unfair
competition and
undisclosed
information.

160. (1) (a) Any act or practice carried out or engaged in, in the course of industrial or commercial activities, that is contrary to honest practices shall constitute an act of unfair competition.

(b) The provisions of this section shall apply independently of, and in addition to, other provisions of the Act protecting inventions, industrial designs, marks, trade names, literary, scientific and artistic works and other intellectual property.

(2) (a) Any act or practice carried out or engaged in, in the course of industrial or commercial activities, that causes, or is likely to cause, confusion with respect to another's enterprise or its activities, in particular, the products or services offered by such enterprise, shall constitute an act of unfair competition.

(b) Confusion may, in particular, be caused with respect to —

- (i) a mark, whether registered or not ;
- (ii) a trade name ;
- (iii) a business identifier other than a mark or trade name ;
- (iv) the appearance of a product ;
- (v) the presentation of products or services ;
- (vi) celebrity or a well known fictional character.

(3) (a) Any act or practice carried out or engaged in, in the course of industrial or commercial activities, that damages, or is likely to damage, the goodwill or reputation of another's enterprise shall constitute an act of unfair competition, whether or not such act or practice actually causes confusion.

(b) Damaging another's goodwill or reputation may, in particular, result from the dilution of the goodwill or reputation attached to—

- (i) a mark, whether registered or not ;
- (ii) a trade name ;
- (iii) a business identifier other than a mark or a trade name ;

- (iv) the appearance of product ;
- (v) the presentation of products or services;
- (vi) celebrity or a well-known fictional character.

(c) For the purposes of these provisions, “dilution of goodwill or reputation” means the lessening of the distinctive character or advertising value of a mark, trade name or other business identifier, the appearance of a product or the presentations of products or services or of a celebrity or well known fictional character.

(4) (a) Any act or practice carried out or engaged in, in the course of any industrial or commercial activity, that misleads, or is likely to mislead, the public with respect to an enterprise or its activities, in particular, the products or services offered by such enterprise, shall constitute an act of unfair competition.

(b) Misleading may arise out of advertising or promotion and may, in particular occur with respect to —

- (i) the manufacturing process of a product ;
- (ii) the suitability of a product or service for a particular purpose ;
- (iii) the quality or quantity or other characteristics of products or services ;
- (iv) the geographical indication of products or services ;
- (v) the conditions on which products or services are offered or provided ;
- (vi) the price of products or services or the manner in which it is calculated.

(5) (a) any false or unjustifiable allegation, in the course of industrial or commercial activities, that discredits, or is likely to discredit, an enterprise of another person or the activities of such enterprise, in particular, the products or services offered by such enterprise, shall constitute an act of unfair competition.

(b) Discrediting may arise out of advertising or promotion and may, in particular, occur with respect to—

- (i) the manufacturing process of a product ;
- (ii) the suitability of a product or service for a particular purpose ;
- (iii) the quality or quantity or other characteristics of products or services ;
- (iv) the conditions on which products or services are offered or provided ;
- (v) the price of products or services or the manner in which it is calculated.

(6) (a) Any act or practice, in the course of industrial or commercial activities, that results in the disclosure, acquisition or use by others, of undisclosed information without the consent of the person lawfully in control of that information (in this section referred to as “the rightful holder”) and in a manner contrary to honest commercial practices shall constitute an act of unfair competition.

(b) Disclosure, acquisition or use of undisclosed information by others without the consent of the rightful holder may, in particular, result from—

- (i) industrial or commercial espionage ;
- (ii) breach of contract ;
- (iii) breach of confidence ;
- (iv) inducement to commit any of the acts referred to in sub-paragraphs (i) to (iii) ;

- (v) acquisition of undisclosed information by a third party who knew or was grossly negligent in failing to know, that an act referred to in sub-paragraphs (i) to (iv) was involved in the acquisition.

(c) For the purposes of this Act, information shall be considered “undisclosed information” if—

- (i) it is not, as a body or in the precise configuration and assembly of its components, generally known among, or readily accessible to, persons within the circles that normally deal with the kind of information in question ;
- (ii) it has actual or potential commercial value because it is secret ; and
- (iii) it has been subject to reasonable steps under the circumstances by the rightful holder to keep it secret.

(d) Any act or practice, in the course of industrial or commercial activities, shall be considered an act of unfair competition if it consists of results in—

- (i) an unfair commercial use of secret test or other data, the origination of which involves considerable effort and which have been submitted to appropriate authority for the purposes of obtaining approval of the marketing of pharmaceutical or agricultural or chemical products which utilize new chemical entities ; or
- (ii) the disclosure of such data, except where necessary to protect the public, or unless steps have been taken to ensure that the data is protected against unfair commercial use.

(e) The undisclosed information for the purpose of this Act shall include—

- (i) technical information related to the manufacture of goods or the provision of services ; or

- (ii) business information which includes the internal information which an enterprise has developed so as to be used within the enterprise.

In this section the word “enterprise” has the same meaning as in section 101 of the Act.

(7) Any person or enterprise or association of producers, manufacturers or traders aggrieved by any act or practice referred to in this Part, may institute proceedings in Court to prohibit the continuance of such act or practice and obtain damages for losses suffered as a result of such act or practice. The provisions of Chapter XXXV of this Act relating to infringement shall apply, *mutatis mutandis*, to such proceeding.

(8) (a) Any person, who willfully and without lawful authority, discloses any undisclosed information shall be guilty of an offence under this Act and shall on conviction after trial before a Magistrate be liable to a fine not exceeding five hundred thousand rupees or to imprisonment for a term not exceeding six months or to both such fine and imprisonment.

(b) The provisions of Chapter XXXVIII of the Act shall apply, *mutatis mutandis*, to the offence specified under this subsection.

(9) The rights conferred by the provisions of subsection (6) shall be in addition to, and not in derogation of, any common law rights.

PART IX

CHAPTER XXXIII

GEOGRAPHICAL INDICATIONS

161. (1) Any interested party shall be entitled to prevent—

- (i) the use of any means in the designation or presentation of goods that indicates or suggests that the goods including an agricultural product, food, wine or spirit in question originates in a

Protection of geographical indications.

geographical area other than the true place of origin in a manner which misleads the public as to the geographical origin of goods ; or

- (ii) any use of a geographical indication which constitutes an act of unfair competition within the meaning of section 160 ;
- (iii) the use of a geographical indication identifying goods including an agricultural product, food, wine or spirit not originating in the place indicated by the geographical indication in question or identifying goods not originating in the place indicated by the geographical indication in question, even where the true origin of the goods is indicated or the geographical indication is used in translation or accompanied by expression such as kind, type, style or imitation or the like.

(2) The protection accorded to geographical indications under sections 103, 160 and 161 shall be applicable against a geographical indication which, although literally true as to the territory, region or locality in which the goods originate, falsely represents to the public that the goods originate in another territory.

(3) In the case of homonymous geographical indications for goods including an agricultural product, food, wine or spirit, protection shall be accorded to each indication, subject to the provisions of subsection (2) of this section. The Minister, in case of permitted concurrent use of such indications, shall determine by prescribed practical conditions under which the homonymous indications in question will be differentiated from each other, taking into consideration the need to ensure equitable treatment of the producers concerned and the protection of consumers from false or deceptive indications.

(4) The Court shall have power and jurisdiction to grant an injunction and any other relief deemed appropriate to prevent any such use as is referred to in this section. The provisions of Chapter XXXV of the Act shall, *mutatis mutandis*, apply to such proceedings.

(5) For the purposes of this section “geographical indications” shall have the same meaning as in section 101.

PART X

CHAPTER XXXIV

CONSTITUTION AND POWERS OF ADVISORY COMMISSION

162. (1) The Minister may constitute an Advisory Commission (hereinafter referred to as the “Commission”) for the purpose of advising him on any matter referred to him in relation to the law relating to Copyright, Industrial Designs, Marks, Patents and Unfair Competition and any other area or subject of Intellectual Property.

Appointments &
of Advisory
Commission.

(2) The Commission constituted under subsection (1) shall consist of—

- (a) not less than five and not more than ten members appointed by the Minister from among persons who have shown capacity in law or commerce or related fields, (hereinafter referred to as an “*appointed member*”) ; and
- (b) the Director-General who shall be an *ex-officio* member and who shall function as the Secretary to the Commission ;

(3) (a) Subject to the provisions of subsection (4), the term of office of an appointed member of the Commission shall be three years :

Provided that a member appointed in place of a member who resigns or is removed or otherwise vacates office, shall hold office for the unexpired portion of the part of term of office of the member whom he succeeds ;

(b) An appointed member of the Commission who vacates office by effluxion of time shall be eligible for re-appointment.

(4) (a) An appointed member of the Commission may resign from office by letter to that effect addressed to the Minister and such resignation shall take effect on such resignation being accepted by the Minister in writing.

(b) The Minister may at any time remove an appointed member from office, assigning any reason therefor.

(c) Where an appointed member is temporarily unable to discharge the duties of his office on account of illness, absence from Sri Lanka or any other cause, the Minister may appoint another person to act as a member in his place.

(5) (a) The Minister shall appoint a Chairman of the Commission (in this Part referred to as the “Chairman”) from among the appointed members of the Commission ;

(b) If the Chairman is by reason of illness, other infirmity or absence from Sri Lanka, temporarily unable to perform the duties of his office, the Minister may appoint another appointed member to act in his place.

(c) The Minister may at any time remove the Chairman from office, assigning any reason therefor ;

(d) The Chairman may resign from the office of Chairman by a letter to that effect addressed to the Minister in writing and such resignation shall take effect on such resignation being accepted by the Minister.

(e) Subject to the provisions of paragraphs (c) and (d), the term of office of the Chairman shall be his period of membership of the Commission.

(6) There may be appointed such officers and servants as may be necessary to assist the Commission in performing its duties under this Part.

(7) The members of the Commission may be paid such remuneration out of the Fund as may be determined by the Minister in consultation with the Minister in charge of the subject of Finance.

(8) It shall be the duty of the Commission –

- (a) to inquire into and report to the Minister, on any matter or question relating to the law of Copyright, Industrial Designs, Trade Marks, Patents and Unfair Competition or any other matter relating to Intellectual Property as may be referred to it by the Minister from time to time ;
- (b) to review the law relating to, and applicable to, Copyright, Industrial Designs, Trade Marks, Patents and Unfair Competition or any other matter relating to intellectual property from time to time and to make proposals to the Minister for the alteration, modification or addition to such law ;
- (c) in making the report or proposals referred to in paragraph (a) or (b), to consult and take into consideration where the Commission deems it necessary to do so, the views of trade chambers, professional organizations, related institutions, government departments and the general public.

(9) The Minister may give special or general directions in writing to the Commission, as to the performance of its duties and the exercise of the powers, and the Commission shall give effect to such directions.

PART XI

CHAPTER XXXV

APPLICATIONS TO AND PROCEEDINGS BEFORE, THE
DIRECTOR-GENERAL AND COURT

Correction and
rectification of
register.

163. (1) The Director-General may, on application made in the prescribed manner by or on behalf of the registered owner of an industrial design, patent, trade mark or any other registration provided for under the Act, correct any error or make any change—

- (a) in the name, address or description of the registered owner of any Industrial Design, Patent or Mark or any other registration provided for under the Act ;
- (b) concerning any other particulars relating to the registration of an Industrial Design, Patent or Mark or any other registration as may be prescribed.

(2) Subject and without prejudice to other provisions of the Act—

- (a) the Court may on the application of any person aggrieved by the non-insertion in or omission from any register, of any entry, or by any entry made in any register without sufficient cause, or by any entry wrongly remaining on any register, or by any error or defect in any entry in any register, make such order for making, expunging, or varying such entry, as it may think fit ;
- (b) the Court may in any proceeding under this section decide any question that may be necessary or expedient to decide in connection with the rectification of any register ;

- (c) in case of fraud in the registration, assignment or transmission of any registered Industrial Design, Patent or Mark, or any other registration provided for under the Act, the Director-General himself may apply to the Court under the provisions of this section.

(3) In any proceedings under this Act in which the relief sought includes correction, alteration or rectification of any register, the Director-General shall have the right to appear and be heard, and shall appear if so directed by the Court. Unless otherwise directed by the Court, the Director-General in lieu of appearing and being heard may submit to the Court a statement in writing signed by him, giving particulars of the proceedings before him in relation to the matter in issue or of the grounds of any decision given by him affecting the same or of the practice of the office in like cases, or of such other matters relevant to the issue, and within his knowledge as such Director-General shall think fit, and such statement shall be deemed to form part of the evidence in the proceedings.

(4) The Court, in dealing with any question of the correction, alteration or rectification of any register shall have power to review any decision of the Director-General relating to the entry in question or the correction, alteration or rectification sought to be made.

164. (1) Where the Director-General is satisfied that any volume of any register kept under this Act has been so damaged as to render that volume incapable of being mended, he may cause a copy thereof to be made and authenticated in such manner as he may direct.

Power to make copies of damaged volumes of any register, to prepare and insert reconstructed folios.

(2) Any copy made and authenticated under the provisions of subsection (1) shall replace the volume of which it is a copy, and shall for all purposes be deemed to have the same legal force and effect as the volume which such copy replaces.

(3) The Director-General shall cause every damaged volume of which a copy has been made under the provisions of subsection (1) to be preserved as long as it is reasonably practicable for any reference which may be necessary.

(4) Where the Director-General, after due investigation, is satisfied that any folio of any volume of any register has been lost and cannot be recovered or that any such folio has been permanently mutilated or so obliterated or damaged as to render the entries or any material part of the entries therein illegible, he may cause a reconstructed folio to be prepared.

(5) No folio shall be reconstructed as provided in subsection (4) except in accordance with the prescribed procedure, providing—

- (a) for evidence to be admitted and used by the Director-General in ascertaining the particulars originally contained in the lost or mutilated or damaged folio ;
- (b) for the giving of notice by the Director-General of the preparation of the reconstructed folio ;
- (c) for the lodging of objections by any person affected by any of the particulars contained in the folio to be reconstructed ; and
- (d) for the holding of an inquiry by the Director-General into any such objections.

(6) Where any folio has been reconstructed by the Director-General in accordance with the preceding provisions of this section, the Director-General shall authenticate the reconstructed folio in the prescribed manner and shall thereafter cause the reconstructed folio to be inserted in the appropriate volume of the register in the place formerly occupied by the lost folio or in place of the mutilated or damaged folio, or in a copy of a volume prepared under the provisions of this section, as the case may be, and the reconstructed folio, when so authenticated and inserted, shall for all purposes be deemed to have the same legal force and effect as the folio which such reconstructed folio replaces.

(7) The Director-General may, after such inquiry as he may deem necessary, correct any clerical error or omission which may be discovered in any entry in any register or in any certificate kept or issued under the provisions of this Act and for that purpose may recall any such certificate and amend the same or issue a fresh certificate in its place.

165. A certificate purporting to be under the hand of the Director-General as to any entry, matter, or thing which he is authorized by this Act or regulations made thereunder to make or do, shall be, *prima facie*, evidence of the entry having been made, and of the contents thereof, and of the matter or thing having been done or not done.

Certificate of Director-General to be evidence.

166. Printed, mechanically produced, typed or written copies or extracts, certified by the Director-General, of or from any document, register, or other book filed or kept under this Act in the office shall be admitted in evidence in any Court of Sri Lanka, without further proof or production of the originals.

Certified copies to be evidence.

167. (1) In any proceeding under this Act before the Court, the evidence shall be given by affidavit in the absence of directions to the contrary. However in any case in which the Court shall think it right so to do, the Court may take evidence, *viva voce*, in lieu of or in addition to evidence by affidavit.

Mode of giving evidence.

(2) The provisions of subsection (1) shall, *mutatis mutandis*, apply in respect of the giving of evidence at an inquiry before the Director-General.

(3) In case any part of the evidence is taken *viva voce*, the Director-General may exercise the powers conferred on a Commission appointed under the provisions of the Commissions of Inquiry Act for compelling the attendance of witnesses and the production of documents and for administering oaths to all persons who shall be examined before him.

Exercise of discretionary power by Director-General.

168. Where any discretionary or other power is given to the Director-General by this Act or any regulation made thereunder, he shall not exercise that power adversely in respect of the applicant for registration or the registered owner of an Industrial Design, Patent or Mark or any other matter provided under this Act without (if duly required so to do within the prescribed time) giving such applicant or registered owner an opportunity of being heard.

Director-General may seek assistance of Attorney-General.

169. The Director-General may, in any case of doubt or difficulty arising in the administration of any of the provisions of this Act, seek the assistance of the Attorney-General.

Infringement and the remedies.

170. (1) Where a person to whom any recognised rights granted under this Act, proves to the satisfaction of the Court that any person is threatening to infringe or has infringed his rights or is performing acts which makes it likely to infringe a right under this Act, will occur, the Court may grant an injunction restraining any such person from commencing or continuing such infringement or performing such acts and may order damages and such other relief as the Court may deem just and equitable. The injunction may be granted along with an award of damages and shall not be denied only for the reason that the applicant is entitled to damages.

(2) The defendant may in the proceedings referred to in subsection (1) request the Court to declare the registration of an Industrial Design, Patent, Mark or any other registration provided for under the Act, as the case may be, or any part of it, null and void, in which event the provisions of the section relating to the nullity of such registration shall apply as appropriate.

(3) (a) The court shall have the power to order—

- (i) the infringer to pay the right holder such damages as are adequate to compensate him for the loss suffered by him, by reason of such infringement, in addition to the recovery of any profits ;

- (ii) the infringing goods to be disposed of outside the channels of commerce or to be destroyed without the payment of any compensation ; and
- (iii) subject to the protection of confidential information, the tendering of any evidence by the opposing party which evidence is relevant to the substantiation of the claim and is in the control of the opposing party, in cases where a party has presented reasonably available evidence in support of the claim and has specified that evidence relevant to the substantiation of such claim lies in the control of the opposing party.

(b) The court may make any order specified in subsection (1) in respect of materials and implements used in the creation of the infringing goods.

(4) In making such orders the need for maintaining a balance between the seriousness of the infringement and the remedies ordered, as well as the interests of third parties shall be taken into consideration. In regard to counterfeit trade mark goods, the simple removal of the trade mark unlawfully affixed shall not other than in exceptional cases, be sufficient, to permit the release of the goods into the channels of commerce.

(5) The Court may, other than in an instance where it would not be in proportion to the seriousness of the infringement, order the infringer to inform the right holder of the identity of the persons involved in the production and distribution of the infringing goods or services and of channels of distribution used by them.

(6) The Court shall have power to order interim measures relating to protection, *ex-parte*, where appropriate, in particular where any delay is likely to cause irreparable harm to the right holder or where there is a demonstrable risk of evidence being destroyed.

(7) Where interim measures have been ordered *ex-parte* the parties affected shall be given notice and shall on receipt of such notice be entitled to be heard as to whether the interim measures ordered should be modified or revoked.

(8) Where the interim measures are modified or revoked or it is subsequently found that there has been no infringement of a protected right, the Court shall have the power to order the applicant, upon the request of the defendant to pay appropriate compensation for any injury caused.

(9) The Court may require the applicant to provide security or other equivalent assurance sufficient to protect the defendant and to prevent abuse of any interim measures referred to in the preceding provisions of this section.

(10) Any owner of the rights protected under this Act may, notwithstanding any provision in the Act relating to the award of damages, elect at any time before final judgment to recover, instead of proved actual damages, an award of statutory damages for any infringement involved in the action of a sum not less than rupees fifty thousand and not more than rupees one million as the court may consider appropriate and just.

(11) No suit or prosecution shall lie against any official for any act which is done in good faith and in pursuance of any provisions of this Act.

Infringement proceedings by or at the request of licensee.

171. In the absence of any provision to the contrary in a licence contract relating to an Industrial Design, Patent or Mark or any other matter provided for by the Act, the licensee may—

- (a) in respect of the threatened infringement, infringement or acts referred to in section 170 request the registered owner of the Industrial Design, Patent or Mark or any other matter provided for by the Act, to apply for an injunction :

Provided that the licensee shall indicate the threatened infringement, infringement or acts being performed in relation to such infringement and specify the relief sought under the Act ; and

- (b) if the owner of the said Industrial Design, Patent or Mark or any other matter provided for by this Act refuses or fails to apply for an injunction within three months from the receipt of the said request, apply for an injunction in his own name, with notice to the registered owner who may join in the proceedings :

Provided that the Court may, on the application of the licensee, prior to the expiry of the period of three months, specified in paragraph (b) of this section grant an injunction if he proves that immediate action is necessary to avoid substantial damage.

172. (1) The Court may on the application of any person showing a legitimate interest to which the registered owner of the Industrial Design, Patent or Mark, or any other matter provided for under the Act as the case may be, shall be made party, declare that the threatened performance or performance of a specific act does not constitute a threatened infringement or infringement of the said Industrial Design, Patent or Mark or any other matter provided for under the Act.

Declaration of
non-infringement.

(2) The registered owner of the industrial design, patent or Mark or any other register provided for under the Act, as the case may be, shall give notice of the said application to any assignee or licensee, who shall be entitled to join in the proceedings in the absence of any provision to the contrary in any agreement with the registered owner.

(3) The proceedings for a declaration of non-infringement may be instituted concurrently with proceedings to declare the registration of an Industrial Design, Patent or Mark or any other matter provided for by the Act be null and void :

Provided that the matters in issue in the proceedings for a declaration of non-infringement are not already the subject of infringement proceedings.

(4) The provisions of the Judicature Act, No. 2 of 1978, and the Civil Procedure Code shall apply to every application for an injunction made to the Court under this Act.

Appeals.

173. (1) Any person aggrieved by any decision made by the Director-General under any provision of the Act may appeal therefrom to the Court within a period of six months from the date of such decision.

(2) Such person may prefer an appeal to the Court by way of a petition of appeal with a certified copy of the decision appealed from, accompanied by copies of all relevant documents and affidavits from the file of the Intellectual Property Office. A copy of the petition of appeal and the accompanying documents and the affidavits shall be served on the Director-General and other respondents named in the petition of appeal. Proof of such service shall be furnished with the petition of appeal to the Court. The respondents may file a statement of objections.

(3) Court may call for the original file from the Director-General and may receive and admit new evidence by way of affidavit and documents, additional to, or supplementary of, the evidence already given before the Director-General in respect of the matter issue as the Court may require.

(4) On any such appeal, the Court may affirm, reverse or vary the decision of the Director-General or may issue such directions to the Director-General, or order a further hearing by the Director-General, as the court may require.

(5) Any person who is dissatisfied with any Order made by the Court under subsection (4) to which such person is a party may prefer an appeal to the Supreme Court against such Order for the correction of any error in fact or in law, with the leave of the Supreme Court first had and obtained.

(6) Every appeal to the Supreme Court under subsection (5) shall be made as nearly as may be in accordance with the procedure prescribed by the rules of the Supreme Court with respect to special leave to appeal to the Supreme Court.

174. (1) In all proceedings before the Director-General under this Act, the Director-General shall have power to award any party such costs as he may consider reasonable, and to direct to whom and to what parties they are to be paid, and such order may be filed in Court, and thereupon such order may be enforced as if it were an order of the Court.

Costs of proceedings before Director-General and Court.

(2) In any proceedings before a Court under this Act, the Director-General shall not be ordered to pay costs. The Court may however in its descretion Order the payment of costs to the Director-General.

CHAPTER XXXVI

REGISTERED AGENTS

175. (1) An Agent referred to in this Act means an agent registered under the provisions of the Act or in accordance with any regulation made thereunder.

Registered agents.

(2) Any person registered as an agent under this Act shall have the authority and be competent to act as an agent under this Act.

(3) A person may be admitted and registered as an agent if he—

- (a) is a citizen of Sri Lanka and is ordinarily resident in Sri Lanka ; and
- (b) (i) is an Attorney-At-Law of the Supreme Court of Sri Lanka ; or
 - (ii) is a person possessing the qualifications prescribed for an agent ; and
- (c) pays the prescribed fee.

(4) A corporate body or a firm may act as an agent if the majority of the Directors of such corporate body or if the majority of the partners of the firm, as the case may be, are registered agents.

(5) The registration of an agent under this Act shall be valid for a period of three years and shall be renewable, subject to the payment of a prescribed fee, for a consecutive period of three years provided, however, that a period of grace of six months shall be allowed for renewal upon payment of such surcharge as may be prescribed.

(6) Notwithstanding anything in the provisions of subsection (2), any duly appointed agent, irrespective of not being registered under this Chapter, may represent his clients, for a period of two years from the date on which the provisions of this Chapter comes into operation.

(7) The power of attorney referred to in this Act means a power of attorney duly executed or a letter of authorisation duly signed by the principal.

CHAPTER XXXVII

FUND

Fund.

176. (1) For the purposes of this Act there shall be established a Fund which shall be maintained in such manner as the Secretary to the Ministry of the Minister in charge of the subject of Trade in consultation with the Director-General may direct.

(2) There shall be paid into the Fund two-thirds of every fee or charge, levied or recoverable under this Act or any regulation made thereunder.

(3) There shall be paid out of the Fund referred to in subsection (1) all sums of money required to defray any expenditure incurred by the Director-General in the exercise, discharge and performance of his powers, functions and

duties under this Act and all such sums of money as are required to be paid out of such Fund by or under this Act or any regulation made thereunder.

(4) The balance one-third of the money paid into the Fund under subsection (2), of each and every such fee or charge levied or recoverable under this Act or any regulation made thereunder shall be credited to the Consolidated Fund.

(5) The Secretary to the Ministry of the Minister in charge of the subject of Trade shall as soon as possible after the end of each calendar year prepare a report on the administration of the Fund and shall cause to be maintained a full and appropriate account of the Fund in respect of each calendar year.

(6) The Auditor-General shall audit the accounts of the Fund in terms of Article 154 of the Constitution.

(7) The financial year of the Fund shall be the calendar year.

CHAPTER XXXVIII

OFFENCES AND PENALTIES

177. Any person who makes or causes to be made a false entry in any of the registers kept under this Act, or a writing falsely purporting to be a copy of an entry in any such register, or produces, or tenders, or causes to be produced or tendered in evidence any such writing, knowing the entry or writing to be false shall be guilty of an offence and shall on conviction after trial before a Magistrate be liable to a fine not exceeding rupees five hundred thousand or to imprisonment for a term not exceeding seven years.

Falsification of entries in any register.

178. (1) Any person who wilfully infringes any of the rights protected under Part II of this Act shall be guilty of an offence and shall be liable on conviction after trial before a Magistrate to a fine not exceeding rupees five hundred

Infringement of Copyright.

thousand or to imprisonment for a term not exceeding six months or to both such fine and such imprisonment, and in the case of a second or subsequent conviction such fine or term of imprisonment or both such fine and imprisonment may be doubled.

(2) Any person knowing or having reason to believe that copies have been made in infringement of the rights protected under Part II of the Act, sells, displays for sale, or has in his possession for sale or rental or for any other purpose of trade any such copies, shall be guilty of an offence and shall be liable on conviction by a Magistrate for a fine not exceeding rupees five hundred thousand or to imprisonment for a term not exceeding six months or to both such fine and such imprisonment, and in the case of a second or subsequent conviction, to double the amount of a such fine or term of imprisonment or both.

(3) Any person knowingly or having reasons to believe that he is in possession or has access to a computer program infringing the rights of another person, and wilfully makes use of such program for commercial gain, shall be guilty of an offence and shall be liable on conviction by a Magistrate for a fine not exceeding rupees five hundred thousand or to imprisonment for a period of six months or to both such fine and imprisonment.

(4) The Magistrate may, whether the alleged offender is convicted or not, order that all copies of the work and all implements used for the infringement, or all plates in the possession of the alleged offender, which appear to him to be infringing copies, or plates or implements used for the purpose of making infringing copies, shall be destroyed or delivered up to the owner of the right, or otherwise dealt with in such manner as the Magistrate may think fit.

Infringement of
Industrial
Designs.

179. Any person who wilfully infringes the rights of any registered owner, assignee or licensee of an Industrial Design shall be guilty of an offence and shall be liable on conviction after trial before a Magistrate to a fine not

exceeding five hundred thousand rupees or to imprisonment for a term not exceeding six months or to both such fine and such imprisonment, and in the case of a second or subsequent conviction to double the amount of such fine or term of imprisonment or both.

180. (1) Any person who, for industrial or commercial purposes, makes a representation —

False representations regarding industrial Designs.

- (a) with respect to an Industrial Design not being a registered Industrial Design to the effect that it is a registered Industrial Design ;
- (b) to the effect that a registered Industrial Design is registered in respect of any product, regarding which registration has not been carried out ;
- (c) to the effect that the registration of an Industrial Design gives an exclusive right to the use thereof in any circumstances in which, having regard to limitations recorded in the register, the registration does not give that right,

shall be guilty of an offence, and shall on conviction after trial before a Magistrate be liable to a fine not exceeding five hundred thousand rupees or to imprisonment for a term not exceeding six months or to both such fine and such imprisonment.

(2) A person shall be deemed to represent that an Industrial Design is registered if he uses in connection with the Industrial Design the word “registered”, or any word or words expressing or implying that registration has been obtained for the Industrial Design.

181. Any person who wilfully infringes the rights of any registered owner, assignee or licensee of a patent shall be guilty of an offence, and shall be liable on conviction after trial before a Magistrate to a fine not exceeding five hundred thousand rupees or to imprisonment for a term not exceeding six months or to both such fine and such imprisonment, and in the case

Infringement of Patents.

of a second or subsequent conviction to double the amount of such fine or term of imprisonment or both.

False representations regarding Patents.

182. (1) Any person who, for industrial or commercial purposes, makes a representation –

- (a) with respect to a patent not being a registered patent to the effect that it is a registered Patent ;
- (b) to the effect that a registered Patent is registered in respect of any product or process regarding which registration has not been carried out ; or
- (c) to the effect that the registration of a Patent gives an exclusive right to the use thereof in any circumstances in which, having regard to limitations recorded in the register, the registration does not give that right,

shall be guilty of an offence, and shall be liable on conviction after trial before a Magistrate to a fine not exceeding five hundred thousand rupees or to imprisonment for a term not exceeding six months or to both such fine and such imprisonment.

(2) A person shall be deemed to represent a Patent as registered if he uses in connection with the Patent the word “registered”, or any word or words expressing or implying that registration has been obtained for the Patent.

Unlawful disclosure of information relating to Patents.

183. Any person who being or having been employed in or at the office, communicates any information relating to Patents or matters connected therewith obtained by him during the course of his employment in or at the office to any person not entitled or authorized to receive such information, or discloses such information to the public or makes any other unlawful use of such information shall be guilty of an offence, and shall on conviction after trial before a Magistrate be liable to a fine not exceeding five hundred thousand rupees or to imprisonment for a term not exceeding twelve months or to both such fine and such imprisonment.

184. Any person who wilfully infringes the rights of any registered owner, assignee or licensee of a Mark, shall be guilty of an offence and shall on conviction after trial before a Magistrate be liable to a fine not exceeding five hundred thousand rupees or to imprisonment for a term not exceeding six months or to both such fine and such imprisonment and in the case of a second or subsequent conviction to double the amount of such fine or term of imprisonment or both such fine and imprisonment.

Infringement of Marks.

185. (1) Any person who, for industrial or commercial purposes, makes a representation—

False representations regarding marks.

- (a) with respect to a Mark not being a registered Mark to the effect that it is a registered Mark ;
- (b) to the effect that a registered mark is registered in respect of any goods or services regarding which registration has not been carried out ; or
- (c) to the effect that the registration of a mark gives an exclusive right to the use thereof in any circumstances, in which having regard to limitations recorded in the register, the registration does not give that right,

shall be guilty of an offence and shall on conviction after trial before a Magistrate be liable to a fine not exceeding five hundred thousand rupees or to imprisonment for a term not exceeding six months or to both such fine and imprisonment.

(2) A person shall be deemed to represent a Mark as registered if he uses in connection with the Mark the word “registered”, or any word or sign expressing or implying that registration has been obtained for the mark.

186. (1) Any person who—

Other offences as to marks and trade descriptions.

- (a) forges any Mark ; or
- (b) falsely applies to goods any Mark or Marks so nearly resembling a registered Mark as to be likely to mislead ; or

- (c) makes any die, seal block, machine, or other instrument for the purpose of forging, or to be used for forging, a Mark ; or
- (d) applies any false trade description to goods ; or
- (e) disposes of, or has in his possession, any die, seal block, machine, or other instrument for the purpose of forging a Mark ; or
- (f) causes any of the things referred to in this subsection to be done,

shall, subject to the provisions of this Part, and unless he proves that he acted without intent to defraud, be guilty of an offence.

(2) Any person who sells or exposes for sale, or has in his possession for sale, or any purpose of trade or manufacture, any goods or things to which any forged Mark or false trade description is applied, or to which any Mark so nearly resembling a registered Mark so as to be likely to mislead, is falsely applied, as the case may be, shall, unless he proves—

- (a) that having taken all reasonable precautions against committing an offence he had at the time of the commission of the alleged offence no reason to suspect the genuineness of the Mark, or trade description ; and
- (b) that on demand made by or on behalf of the prosecutor he gave all the information in his power with respect to the persons from whom he obtained such goods or things ; or
- (c) that otherwise he had acted innocently,

be guilty of an offence.

(3) Any person who imports any piece-goods ordinarily sold by length or by the piece, manufactured outside Sri Lanka, or who sells or exposes for, or has in his possession for sale or any purpose of trade, any piece-goods ordinarily

sold by length or by piece, whether manufactured within or outside the territory of Sri Lanka, which do not have conspicuously stamped in English numerals on each piece, the length thereof in standard metres, or in standard metres and a fraction of such a metre, according to the real length of the piece, shall be guilty of an offence :

Provided that nothing contained in this subsection shall apply to any piece-goods manufactured within the limits of Sri Lanka by hand labour only.

(4) Any person found guilty of an offence under this section shall on conviction after trial before a Magistrate be liable to a fine not exceeding rupees five hundred thousand or to imprisonment for a term not exceeding two years or to both such fine and such imprisonment, and in the case of a second or subsequent conviction such fine or term of imprisonment or both such fine and imprisonment may be doubled.

(5) The Magistrate may, whether the alleged offender is convicted or not, order that every chattel, article, instrument or thing by means of or in relation to which the offence has or might have been committed shall be destroyed or declared forfeit to the State or otherwise dealt with as he may think fit.

187. Where an offence under this Act has been committed by a body corporate, every person who at the time of the commission of the offence was a Director-General, Manager, Secretary or other similar officer of that body shall be deemed to be guilty of such offence, unless he proves that the offence was committed without his consent or connivance and that he exercised all due diligence to prevent the commission of the offence.

Offences by
bodies corporate.

188. For the purposes of this Part, the definitions contained in section 101 shall apply, unless the context otherwise requires.

Interpretation.

False name or initials.

189. (1) The provisions of this Part respecting the application of a false trade description to goods, or respecting goods to which a false trade description is applied, shall extend to the application to goods—

- (a) of any such figures, words, marks or arrangement or combination thereof, whether including a registered Mark or not, as are likely to lead persons to believe that the goods are the manufacture or merchandise of some person other than the person whose manufacture or merchandise they really are ;
- (b) of any false name or initials of a person and to goods with the false name or initials of a person applied, in like manner as if such name or initials were a trade description.

(2) For the purposes of this Part the expression “false name or initials” means, as applied to any goods, any name or initials of a person which—

- (i) are not a Mark, or part of a Mark ; and
- (ii) are identical with, or are a colourable imitation of, the name or initials of a person carrying on business in connection with goods of the same description, and not having been authorized the use of such name or initials ; and
- (iii) are either those of a fictitious person or of some person not, *bona fide*, carrying on business in connection with such goods.

(3) A trade description which denotes or implies that in any goods to which it is applied which contains more metres or standard metres than contained therein, is a false trade description.

190. A person shall be deemed to forge a Mark who either— Forging marks.

- (a) without the assent of the owner of the Mark make that Mark, or a Mark so nearly resembling that mark as to be likely to mislead ; or
- (b) falsifies any genuine Mark, whether by alteration, addition, effacement or otherwise,

and any Mark so made or falsified is in this Part referred to as a forged Mark :

Provided that in any prosecution for forging a Mark the burden of proving the assent of the owner shall lie on the accused.

191. Any person who—

False declaration to be an offence.

- (a) Makes a false declaration to the Director-General ;
- (b) Makes a false declaration in respect of geographical indication inclusive of Ceylon Tea and Ceylon Cinnamon,

shall be guilty of an offence and shall be liable on conviction by a Magistrate to a fine not exceeding five hundred thousand rupees.

192. (1) Any person shall be deemed to apply a Mark or trade description to goods who—

Applying Marks and descriptions.

- (a) applies it to the goods itself ; or
- (b) applies it to any covering, label, reel or other thing in or with which the goods are sold or exposed, or had in possession for any purpose of sale, trade, or manufacture ; or
- (c) places, encloses, or annexes any goods which are sold or exposed, or had in possession for the purpose of sale, trade, or manufacture, in, with, or to any covering, label, reel, or other thing to which a mark or trade description has been applied ; or

(d) uses a Mark, or trade description in any manner likely to lead to the belief that the goods in connection with which it is used are designated or described by that Mark, or trade description.

(2) The expression “covering” includes any stopper, cask, bottle, vessel, box, cover capsule, case, frame, or wrapper ; and the expression “label” includes any band or ticket.

(3) A Mark or trade description shall be deemed to be applied whether it is woven, impressed, stamped, branded, or otherwise worked into or annexed, or affixed to the goods, or any covering, label, reel, or other thing.

(4) A person shall be deemed to falsely apply to goods a mark who, without the assent of the owner of a Mark, applies such Mark or any Mark so nearly resembling it as to be likely to mislead, but in any prosecution for falsely applying a Mark to goods the burden of proving the assent of the owner shall lie on the accused.

Exemption certain persons employed in ordinary course of business.

193. Where a person is charged with of making any die, stamp block, machine, or other instrument for the purpose of forging or being used for forging, a Mark, or with falsely applying to goods any Mark or any Mark so nearly resembling a mark as to be likely to mislead, or with applying to goods any false trade description or causing any of the things in this section mentioned to be done, and such person proves—

(a) that in the ordinary course of his business he is employed, on behalf of other persons, to make dies, stamps blocks, machines, or other instruments for making, or to be used in making, Marks, or as the case may be, to apply Marks or descriptions to goods and that in the case which is the subject of the charge he was so employed by some person resident in Sri Lanka, and was not interested in the goods by way of profit or commission dependent on the sale of such goods ; and

- (b) that he took reasonable precautions against committing the offence charged with ; and
- (c) that he had, at the time of the commission of the alleged offence, no reason to suspect the genuineness of the Mark or trade description ; and
- (d) that he gave to the prosecutor all the information in his power with respect to the person on whose behalf the Mark or description was applied,

he shall be discharged from the prosecution, but shall be liable to pay the costs incurred by the prosecutor unless he gives due notice to the prosecutor regarding his intention to rely on defence specified in this section.

194. In any indictment, charge, proceeding, or document in which any mark or forged mark is required to be mentioned, it shall be sufficient, without further description and without any copy or facsimile, to state that Mark or forged Mark to be a Mark or forged Mark.

Mark how described in pleading.

195. In any prosecution for and offence under this Part—

Rules as to evidence.

- (a) an accused, and his or her spouse as the case may be, may, if the accused thinks fit, be called as a witness, and if called, shall be sworn and examined and may be cross-examined and re-examined in like manner as any other witness ;
- (b) in the case of imported goods evidence of the port of shipment shall be, *prima facie*, evidence of the place or country in which the goods were made or produced.

196. Any person who, being within Sri Lanka, abets the commission out side Sri Lanka of any act which, if committed within Sri Lanka, would under this Part be an offence, shall be deemed to be guilty of that offence, and be liable to be indicted, proceeded against, tried and convicted in any district or place in Sri Lanka in which he may be as if the offence had been committed therein.

Punishment of accessories.

For the purpose of this section “abet” shall have the same meaning as in section 101 of the Penal Code.

Search warrant.

197. (1) (a) Upon receipt of information of an offence being committed under this Part, a Magistrate may issue either a summons requiring the person alleged to have committed such offence to appear in court and show cause or where such person fails to appear issue a warrant for the arrest of such person ;

(b) The Magistrate may upon being satisfied by information on oath that there are reasonable grounds to believe that any goods or things by means of, or in relation to, which such alleged offence has been committed are in any house or premises of the person charged on the basis of such information, or in his possession or under his control, in any place, such Magistrate may issue a warrant under his hand ;

(c) It shall be lawful for any police officer, or other person named or referred to in the warrant, to enter such house, premises, or place at any reasonable time of the day, and to search therefore and seize such goods or things ; and any goods or things seized under any such warrant shall be brought before the Magistrate’s Court for the purpose of determining whether such goods are liable to forfeiture under this Part.

(2) (a) If the owner of any goods or things which, if the owner thereof had been convicted, would be liable to forfeiture under this Part, is unknown or cannot be found, any information or complaint may be led for the purpose only of enforcing such forfeiture, and a Magistrate may cause notice to be published requiring reasons to be shown to the contrary at the time and place named in the notice, as to why such goods or things should not be forfeited.

(b) If the owner or any person on his behalf, or other person interested in the goods or things, fails to show sufficient cause to the contrary at the time and place named in the notice, Magistrate may order such goods or things or any of them to be forfeited. Every such order shall be subject to an appeal.

(3) Any goods or things forfeited under this section, or under any other provisions of this Part, may be destroyed or otherwise disposed of, in such manner as the Magistrate who ordered the forfeiture may direct, and the Magistrate out of any proceeds which may be realized by the disposition of such goods (all marks and trade descriptions being first obliterated), may make an award to an innocent party for any loss he may have sustained in dealing with such goods.

198. In any prosecution under this Part the Court may order costs to be paid to the accused by the prosecutor or to the prosecutor by the accused, having regard to the information given by, and the conduct of, the accused and prosecutor respectively, and the sum so awarded as costs shall be recoverable as if it were a fine.

Costs of defence and of prosecution.

199. Where, at the commencement of this Act, a trade description is lawfully and generally applied to goods of a particular class, or manufactured by a particular method, to indicate the particular class or method of manufacture of such goods, the provisions of this Part with respect to false trade descriptions shall not apply to such trade description when so applied :

Provisions as to false description not to apply in certain cases.

Provided that where such trade description includes the name of a place or country, which is likely to mislead as to the place or country where the goods to which it is applied were actually made or produced, and the goods are not actually

made or produced in that place or country, the provisions of this section shall not apply unless there is added to the trade description, immediately before or after the name of that place or country, in an equally conspicuous manner, the name of the place or country in which the goods were actually made or produced, with a statement that they were made or produced there.

Savings.

200. (1) The Provisions of this Part shall not exempt any person from any action, suit, or other proceeding which might, but for the provisions of this Part, be brought against him.

(2) Nothing in this Part shall entitle any person to refuse to make a complete discovery, or to answer any question or interrogatory in any action, but such discovery or answer shall not be admissible in evidence against such person in any prosecution for an offence under this Part.

(3) Nothing in this Part shall be construed so as to make any servant of a master resident in Sri Lanka liable to a suit or prosecution due to disclosure of information regarding the servant of a master, when required by or on behalf of the prosecutor who, *bona fide*, acts in compliance with the instructions of such master.

Cognizable and bailable offences.

201. All offences under this Part shall be cognizable and bailable, within the meaning of the Code of Criminal Procedure Act, No. 15 of 1979. The provisions of the Code of Criminal Procedure Act shall apply to any offence committed under this Part.

Limitation of prosecution.

202. No prosecution for an offence under this Act shall be commenced after the expiration of three years after the commission of the offence charged or two years after the discovery thereof by the prosecutor, whichever expiration first occurs.

203. On the sale, or in the contract for the sale, of any goods to which a Mark, or trade description has been applied, the vendor shall be deemed to warrant that the Mark is a genuine Mark, and not forged or falsely applied, or that the trade description is not a false trade description within the meaning of this Part, unless the contrary is expressed in writing signed by or on behalf of the vendor and delivered at the time of the sale or contract to, and accepted by, the vendee.

Implied warranty on sale of marked goods.

CHAPTER XXXIX

REGULATIONS

204. (1) The Minister may from time to time make regulations for the purpose of carrying out or giving effect to the principles and provisions of this Act and in particular in respect of any matter required under this Act to be prescribed.

Regulations.

(2) Without prejudice to the generality of the powers conferred by subsection (1) the Minister may make regulations in respect of any or all of the following matters :—

- (a) the procedure of registration ;
- (b) the classification of goods and services for the purposes of registration ;
- (c) the fees payable in respect of registration and other matters ;
- (d) the forms to be used for any purpose under the Act ;
- (e) the setting up of organizations to administer rights specified in Part II on behalf of the owners of such rights and the conditions under which such organizations are required to work ;
- (f) the admission, registration, cancellation, removal and any other matter relating to agents specified in Chapter XXXVI of the Act ;
- (g) The manner of the administration of the Patent Co-operation Treaty in Sri Lanka ;

(h) all matters which under this Act have been placed under the direction or control of the Director-General.

(3) Every regulation made by the Minister shall be published in the Gazette and shall come into operation on the date of such publication or on such later date as may be specified therein.

(4) Every regulation made by the Minister shall as soon as convenient after its publication in the Gazette be brought before the Parliament for approval. Any such regulation which is not so approved shall be deemed to be rescinded as from the date of its disapproval, but without prejudice to anything previously done thereunder.

(5) Notification of the date on which any regulation made by the Minister is so deemed to be rescinded shall be published in the Gazette.

CHAPTER XL

AMENDMENT OF HIGH COURT OF THE PROVINCES (SPECIAL PROVISIONS) ACT, No. 10 OF 1996

Amendment of
Act No. 10 of
1996.

205. High Court of the Provinces (Special Provisions) Act, No. 10 of 1996 is hereby amended as follows :—

(1) by the repeal of item 3 of the First Schedule to that Act and substitution thereof of the following :—

“All proceedings required to be taken under the Intellectual Property Act, No. 36 of 2003 in the High Court established under Article 154 P of the Constitution”.

(2) by the repeal of item 2 of the Second Schedule to the Act.

CHAPTER XLI

AMENDMENT OF THE CUSTOMS ORDINANCE

206. Section 101 of the Customs Ordinance (Chapter 235) is hereby amended by the insertion immediately after paragraph (e) of that section of the following new paragraph :—

Amendment of section 101 of the Customs Ordinance. (Chapter 235)

“(ee) for prohibiting of importation and exportation of counterfeit trade mark goods or pirated copyright goods or any other goods in contravention of the provisions of the Intellectual Property Act, No. 36 of 2003”.

207. The Customs Ordinance hereinafter referred to as “the Ordinance ”is hereby amended in Part XIII of that Ordinance by the insertion immediately after section 125 thereof of the following new sections :—

Insertion of new sections in the Customs Ordinance.

“Inclusion of prohibited goods in Schedule B of Customs Ordinance.

125A. (1) The importation of counterfeit trade mark goods or pirated copyright goods or any other goods in contravention of the provisions of the Intellectual Property Act, No. 36 of 2003 (hereinafter referred to as the “Act”) shall be prohibited and such goods shall be included among the goods the importation of which, are prohibited under section 43 of the Ordinance and included in Schedule B of the Ordinance as prohibited goods.

(2) The exportation of the goods referred to in subsection (1) of this section shall be prohibited and such goods shall be included among the goods the exportation of which, are prohibited as if they were referred to in section 44 of the Ordinance and included in Schedule B of the Ordinance as prohibited goods.

(3) Notwithstanding anything to the contrary in any other law, prohibited goods referred to in subsections (1) and (2) of this section, shall be disposed of outside the channels of commerce

or if such disposal damages the interests of the owner of any right protected under the Act, be destroyed.

(4) “Counterfeit trade mark goods” mean any goods including packaging, bearing without authorization a trade mark which is identical to a trade mark validly registered in respect of such goods or which cannot be distinguished in its essential aspects from such a trade mark, and which thereby infringes the rights of the owner of the trade mark recognised by the Act.

(5) “Pirated copyright goods” mean any goods which are made without the consent of the copyright holder or person duly authorised by the copyright holder in the country of production and which are made directly or indirectly from an article where the making of that copy would have constituted an infringement of a copyright or a related right by the Act.

Suspension of certain goods by Customs Authorities.

125B. (1) A right holder, who has valid grounds to believe that the importation of counterfeit trade mark or pirated copyright goods or of any other goods in contravention of the right holder’s rights under the Act is taking place, may make an application in writing to the Director-General, of customs requiring him to suspend of the release of such goods into free circulation.

(2) A right holder who makes an application under subsection (1) shall provide adequate evidence to satisfy the Director-General of Customs that there is a, *prima facie*, case of infringement of the right holder’s rights under the Act and supply a sufficiently detailed description of the goods to make them readily recognisable by any officer of the Customs.

(3) (a) The Director-General of customs shall have the power to require an applicant to provide a security or equivalent assurance sufficient to protect the defendant and to prevent any abuse ;

(b) Where pursuant to an application made under subsection (1), the Director-General of customs suspends the release of any goods into free circulation, he shall forthwith cause the importer and the applicant to be promptly notified the the suspension.

(4) If the Director-General of customs fails to receive any notice regarding the institution of proceedings in respect of the of release of any goods suspended under subsection (3), within a period not exceeding ten working days after the applicant has been informed of the suspension as provided for in subsection (3), he shall cause the goods to be released, provided all other conditions for importation or exportation have been complied with.

(5) Where pursuant to an application made under subsection (1), the Director-General of customs has suspended the release of any goods into free circulation and the period referred to in subsection (4) has expired without the granting of any provisional relief by a Court, and provided that all other conditions for importation have been complied with, the owner, importer or consignee of such goods shall be entitled to have such goods released.

(6) Notwithstanding anything contained in the preceding provisions of this section, where the suspension of the release of any goods is carried out or continued in accordance with an

order of court, the provisions of subsection 4 of section 170 of Intellectual Property Act, No. 36 of 2003, shall apply.

(7) The court shall have the power to order the applicant to pay the importer, the consignee and the owner of the goods, appropriate compensation for any harm caused to them through the wrongful detention of goods or through the detention of goods released pursuant to the preceding provisions of this section.

(8) Without prejudice to the protection of confidential information, the Court shall have power to give the right holder sufficient opportunity to have any goods detained by the customs authorities inspected in order to substantiate the right holder's claims. The Court shall in addition have power to give the importer an equivalent opportunity to have any such goods inspected.

(9) Without prejudice to other rights of action open to the right holder and the defendant, the Court shall have the power to order the destruction or disposal of any infringing goods in accordance with the principals set out in section 170 of Intellectual Property Act, No. 36 of 2003. In regard to counterfeit trade mark goods, the Court shall not other than in exceptional circumstances allow the re-exportation of the infringing goods in an unrelated state or subject them to a different customs procedure.

(10) The provisions of sections 125A and 125B shall not apply to small quantities of goods of a non-commercial nature contained in a traveller's personal luggage or forwarded in small consignments.

(11) In this section, the expressions “counterfeit trade mark goods” and “pirated copyright goods” shall have the same meanings as are assigned to them in section 125A.”.

CHAPTER XLII

REPEALS AND SAVINGS

208. (1) The Code of Intellectual Property Act, No. 52 of 1979 (hereinafter referred to as the “Code”) is hereby repealed.

Repeals and savings.

(2) Notwithstanding the repeal of the Code the National Intellectual Property Office of Sri Lanka established under the Code, and the officials appointed under the Code shall continue and shall be deemed to have been established and appointed respectively under this Act.

(3) Notwithstanding the repeal of the Code every regulation made thereunder as in force on the date of commencement of this Act, in so far as such regulation is not inconsistent, with the provisions of this Act shall be deemed to be made under this Act, and such regulations may be amended, rescinded or altered by regulations made under this Act.

(4) Notwithstanding the repeal of the Code—

(a) Every application for registration of an Industrial Design, Patent or Mark made to the Director-General under the provision of the code and pending on the date immediately preceding the date of commencement of this Act, shall be deemed to be an application made to the Director-General under Part III, IV or V respectively of this Act, and shall be dealt with in accordance with the provisions of this Act ;

- (b) any right specified in Part II of this Act, which was granted on the date of coming into operation of the repealed Code shall for all purposes except for the purpose of imposing punishment, continue to be valid and effectual as if herein granted provided that the term of protection previously granted has not expired under the Code or under the laws of the country of origin of such work, performance, sound recording or broadcast that are to be protected under any international treaty to which Sri Lanka is a party ;
- (c) every action, proceeding or other matter relating to Copyright, Industrial Desingns, Patents, Marks and unfair competition pending on the day immediately preceeding the date of the commencement of this Act, shall be deemed to have been instituted under the provision of this Act and shall be continued and proceeded with under the provisions of this Act ;
- (d) nothing in Part III, IV, V or VI of this Act shall affect any order or requirement made, table of fees or certificates issued, notice, decision, determination, direction or approval given, application made, or thing done, under the Code, and every such order, requirement, table of fees, certificate, notice, decision, determination, direction, approval, application or thing shall, if in force on the date immediately preceding the date of commencement of this Act, shall be deemed to have been made under the provisions of this Act and shall continue in force and shall, so far as it could have been made, issued, given or done under this Act have effect as if made, issued, given or done under the corresponding provisions of this Act ;
- (e) all contracts, leases and agreements subsisting on the day immediately preceding the date of commencement of this Act shall be deemed for all purposes to be contracts, leases or agreements made or entered into by or with or for the office, under the provisions of this Act.

- (f) all interests, rights, obligations, debts and liabilities of the office subsisting on the day immediately preceding the date of commencement of this Act, shall be deemed to be the interest, rights, obligations, debts and to liabilities of the office, under the provisions of this Act.

209. The validity of the original entry of a Design on the register of Designs existing on the day immediately preceding the date of commencement of this Act or any register of Designs which was kept under any previous law and was incorporated with and declared to form Part of the Register of Designs, shall be deemed to have been registered under Part III of this Act. Every such Design shall however retain its original date.

Saving of
Designs.

210. The validity of the original entry of a Patent on the register of Patents existing on the day immediately preceding the date of commencement of this Act or any Register of Patents which was kept under the previous laws and was incorporated with and declared to form Part of the Register of Patent shall be deemed to have been registered under Part IV of this Act. Every such Patent shall however retain its Original date.

Savings of
Patents.

211. (a) The validity of the original entry of a Mark on the Register of Marks existing on the day immediately preceding the date of commencement of this Act or any register of Marks which was kept under any previous law and was incorporated with and declared to form Part of the Register of Marks shall be deemed to have been registered under Part V of this Act. Every such Mark shall however retain its original date.

Savings of Marks.

(b) No mark which was on the Register on the day immediately after the date of commencement of the Code and which under the Code was then a registrable mark shall be removed from the Register on the ground that it was not registrable under the law in force at the date of its registration.

(c) No mark which was on the Register on the day immediately preceding the date of commencement of the Act and which under Part V is a registrable mark shall be removed from the register on the ground that it was not registrable, under the law in force at the date of its registration.

(d) Nothing in Part V shall—

- (i) invalidate the original registration of a mark which had validity on the register immediately before the date of commencement of this Act ; or
- (ii) subject any person to any liability in respect to any act or thing done before the date of commencement of this Act, to which he would not have been subject under the law in force at the time such act or thing was done.

CHAPTER XLIII

INTERPRETATION

Interpretation.

212. In this Act unless the context otherwise requires—

“Central Bank of Sri Lanka” means the Central Bank of Sri Lanka established under the Monetary Law Act (Chapter 422) ;

“convention country” means any country that has acceded to or ratified or that may hereafter accede to or ratify the Paris Convention for the protection of Industrial Property, as well as all members of the World Trade Organisation or States that may here after become members of the World Trade Organisation, and includes any country which has

entered into or which may hereafter enter into any treaty, convention or arrangement with Sri Lanka creating reciprocal rights and obligations between such country and Sri Lanka in regard to Industrial Designs, Patents and Marks and any other matter provided for by the Act and the registration thereof ;

“convention” means the Paris Convention for the protection of Industrial Property, World Trade Organisation or any other international or regional convention, treaty or arrangement to which Sri Lanka is party creating reciprocal rights and obligations between such country and Sri Lanka in regard to Industrial Designs, Patents. Marks and any other matter provided for by the Act and the registration there of ;

“Court” means a High Court established under Article 154P of the Constitution for a Province empowered with civil jurisdiction by Order published in the Gazette under section 2 of the High Court of Provinces (Special Provisions) Act, No. 10 of 1996 when the party or parties defendant to such action resides or reside or the cause of action has arisen or the contract sought to be enforced was made within the Province for which such High Court is established, or where no such High Court is established for any Province or vested with such civil jurisdiction the High Court established for the Western Province ;

“Transgenic” means an organism that expresses a characteristic not attainable normally by the species under natural circumstances, but which has been added by means of direct human intervention in its genetic composition.”.

213. In the event of any inconsistency between the Sinhala and Tamil texts of this Act, the Sinhala text shall prevail.

Sinhala text to prevail in case of inconsistency.

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