### To my Father

We started with comics, then magazines, books, encyclopaedias, more

books and finally three theses...this shall not be the last...

**CRANFIELD UNIVERSITY** 

DAHLINA DAUT MOHMUD

#### **E-TRANSFORMATION IN THE PUBLISHING INDUSTRY**

SCHOOL OF APPLIED SCIENCES

PhD THESIS

#### **CRANFIELD UNIVERSITY**

#### SCHOOL OF APPLIED SCIENCES

#### PhD THESIS

#### Academic Year 2003-2006

#### DAHLINA DAUT MOHMUD

#### E-TRANSFORMATION IN THE PUBLISHING INDUSTRY

Supervisor: Prof. Peter Sackett

December 2006

#### This thesis is submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy

© Cranfield University 2006. All rights reserved. No part of this publication may be reproduced without the written permission of the copyright owner.

#### Abstract

This thesis presents the findings and conclusions of research that was undertaken with the purpose of understanding the issues and challenges of e-transformation in the publishing industry, particularly the editorial phase, and in a government controlled environment of Malaysia.

The research followed an exploratory inquiry and a case study approach, was conducted in a publishing house in Kuala Lumpur. This study was based upon data collected through in depth interview with 18 editors, documentary research (manuals, house styles, General Orders of the Government of Malaysia, forms, correspondence, other in house documents, speeches and local news), physical artefacts (132 edited manuscripts involving 33 editors), archival records (project files spanning 2 years of published works) and literature research. 10 major issues were identified and grouped into 4 categories, 4 major issues from previous failed systems identified, 9 major impacts categorised into 3 different categories were identified and 7 recommendations from the editors were identified for future systems. Focusing on these issues and impacts, several measures were recommended that would improve e-transformation in the company. Guidelines were developed to streamline the transformation and a new workflow proposed towards efficiency in a new medium. Disruption is also identified in the process of transformation.

The research concludes by describing the phenomena of transformation in the editorial phase, that there are issues, impacts, disruption and unsettling points before, during and after transformation that would need to be thoroughly investigated, understood and addressed, to successfully transform the editorial phase. The research contributes to both theory and practice. It also proposed a conceptual model to understand the transformation particularly in a public sector; it developed a guideline for effective transformation and developed a workflow for the editorial phase.

#### Acknowledgement

So many have crossed my path here, too many to name but I will try to include everyone who has contributed worldly to see me through the PhD.

I have been very ambitious since I was small. My late father wanted me to become a Doctor and since I could speak, I will tell everybody that I want to become a doctor when I grow up. Grew up I did, but I am neither rich nor brainy to pursue such big ambition. I am not even born to be patient, what's more to undertake such huge task that requires that, day in, day out for 4 long years. Moreover, I was just an ordinary officer in a government agency, always branded slow and complacent by the privates. But there it nurtures healthy living environment and a passion in the work. *Alhamdulillah*, luck was on my side. In 2001, for months my home were the hospitals, and I was travelling 150 miles to and fro to Teluk Intan from Kuala Lumpur, where my comatose father was hospitalised and at the same time living with manuscripts and dictionaries next to my husband's hospital bed in Kuala Lumpur. 2 months after my father passed away, in those dreaded days, I was given the chance in a million, while taking care of my ill husband in the hospital. It brought a new comfort and light into our lives.

When I first set foot in the UK, my 4 children were still small, my eldest was 7, the girls each 6 and 4 and my youngest son only 4 months old. Through thick and thin, we slogged through, no bed of roses, no silver lining, only hardship and living poor. Nonetheless, amidst all these, we created our very own happiness and contentment of being together and of enjoying what the Lord has bestowed upon us.

To my husband, Ismail Mohamed Ibrahim, who sacrificed his whole life for this quest, no words in this world could pen what I feel. His love, devotion, dedication, support and much more is incomparable to anyone and anything on the earth through my eyes. My children, Ariff, Aniss, Arissa and Amierullah, their sacrifices...what can you say, except, forgive me for not being there most of the time, and thank you for being there all the time. To my mother, Maliyah Mohd Yusoff, my mother in law, Ramelah Muit, my dear uncle Daud Mattan and aunt, Fatimah Mohd Yusoff, my brothers and sisters, my in-laws, cousins, nephews, nieces, and all my family back home, thank you so much for being there for me through these difficult times. To my families here in the UK, the Malaysians, the Changs, thank you for everything you have given to our lives, they are all very much appreciated.

I am very much indebted to my sponsor, Dewan Bahasa dan Pustaka Malaysia, who has given me this chance, who believed in me and who was always eager to have me back. I am proud to be one of them and I am proud to serve back. Special thanks to Mdm. Rohani Rustam who has given great encouragement. Thank you to my bosses, colleagues and friends there, for those who helped me through, special thanks to my dearest friends, who have only words of comfort and encouragement, Mdm. Sa'odah Abdullah, Faikha A Kadir, Rafeedah Rahim, Noorlinah and Salwa and all my brilliant interviewees.

To my supervisor, Prof. Peter J. Sackett, thank you very much for all the constructive comments, the counsels, the push, the drag, the arguments, the laughs, the tears, the support and the friendship. Without all these, I will never be who I am today.

To my friends in Enterprise Integration, in SAS and in Cranfield, thank you for being there in those good and difficult moments. Many thanks too to the two pretty girls, Marini and Btissame for adding colour, comfort and strength to this life.

And, to my Dad, Daut Mohmud Sulaiman Lubis, I dedicate this thesis to you with all my love written on every character. Time passed quickly, it has been 6 years since the day you left us on 29 February 2001, the day I watched the last of your breath on that hospital bed. You will always be there Dad, and I will always be your girl and your Doctor.

#### Dahlina Daut Mohmud Lubis

#### **The Author**

Dahlina Daut Mohmud started her early years by joining a local village school, where her mother taught the Islamic religion. In 1971, she joined the all girls Convent Primary School of Teluk Intan, proceeded to the Convent Secondary School and later joined the Sekolah Menengah Tuanku Syed Putra, Perlis, a science boarding school. After completing the Malaysian Certificate of Education, she joined the National University of Malaysia and graduated in 1989 with a BSc. (Hons.) in Microbiology. By 1990, she became an editor at The Institute of Language and Literary Planning, Malaysia, overseeing the publication of translated medical and science books for higher learning. In 1991, she received The Diploma in Translation and awarded the best student. She was Head of Translation Services with The Malaysian Translators' Association for 5 years until 2001. Since then, she has been an editor in the Translation Division, Social Sciences and Textbooks Division. She was seconded to the Multimedia Unit to help set up the first online publishing and in 2001 was awarded a scholarship to do her Masters Degree in Multimedia Computing at the University of Central Lancashire, UK, prior to the PhD programme at Cranfield University.

Nonetheless, her proudest and most enjoyable moments were in the outdoor. She was a 100 and 400 meter sprinter in her school days, a centre forward for the girls' hockey team and the midfielder in the softball (equivalent to baseball) team. She was an Outdoor Recreation Coach under the Ministry of Youth and Sports, specialising in abseiling, mountain climbing and jungle trekking and has conquered several of the highest peaks in Peninsular Malaysia. In 1991, she also became one of the first women to canoe around Singapore.

#### Preface

This research should serve as a foundation of respect towards editors and all human beings. It was intended to capture the hearts of editors, read their mind and share their grief and annoyance as well as their passion, thus construed as a platform for better professional deliverance in the social and business encounters. Incidental thereto, it did capture the unlikeliness of passionate editors, hence manifesting the darker side of the editorial phase shrouded in government and political turmoil. Subsequently, it conceals the best intentions of human being, where it did not intend to infiltrate in the first place. Set forth against this backdrop, it is hope that this research should not be taken as an act of subversive retaliation, but an early warning and a signal of internal conflicts that should be rectify without prejudice for a better future. This research is an honest account to unveil the mysteries of the editorial phase. It has been conducted based on information and in any way possible depart from being bias.

Author

## **Papers Published/Presented**

- 1. **Daut Mohmud, D. and Sackett, P. (2004)** *Shifting into E-Business; Is the Publishing Industry Lagging Behind?* [Online], Electronic Book Web, Posted January 2004. <u>http://ebookweb/</u>
- 2. **Daut Mohmud, D. and Sackett, P. (2004)** *The KaryaNet; Malaysia's EBook Portal: The Development of Knowledge Online,* Presented at *The Eleventh International Literacy and Education Research Network Conference on Learning,* Havana, Cuba. 27-30 June 2004.
- 3. **Daut Mohmud, D. and Sackett, P. (2006)** *Malaysia's Government Publishing House: A Quest for Increased Performance through Technology. The International Journal of Management Research and Practice: Public Administration and Development, 27, 27-38, John Wiley* and Sons.

## **Table of Contents**

			Page
Chapt	ter 1 I	ntroduction	1
1.1	The Pub	lishing Industry	1
1.2	Research	h Rationale	4
1.3	Electron	ic Publishing	5
1.3.	1 Term	ninologies	6
1.3.	.2 Back	ground	7
1.4	The Edit	torial Phase	10
1.4.	.1 Evol	lution of Scholarship	10
1.4.	.2 The I	Role of Modern Editors	15
1.4.	3 Adm	inistration in the Editorial Processes	15
1.5 ′	The Pub	lishing Business Models	16
1.5.	1 Paid	Access Model	16
	1.5.1.1	Subscription model	16
	1.5.1.2	Content services	16
	1.5.1.3	Person-to-person networking services	16
	1.5.1.4	Trust services	16
	1.5.1.5	Pay per view model/Pay to download	16
	1.5.1.6	Online syndication model	17
	1.5.1.7	Content and commerce model	17
	1.5.1.8	Peer review-authors pay	17
	1.5.1.9	Author-pays model	18
	1.5.1.10	Self-terminating model	18
	1.5.1.11	The Bookface model	18
	1.5.1.12	The e-matter model	19
	1.5.1.13	iPublish model	19
	1.5.1.14	The Guild publishing model	20
1.5	5.2 Con	ntent Based Publishing	21
1	.5.2.1	Content-based publishing	21
1	.5.2.2	Proprietary content	22

1.5.2.3 The digital library	22
1.5.2.4 Content franchise	22
1.5.2.3 Recombinant publishing	22
1.6 Disruptive Innovation	23
1.7 Research Context	23
1.7.1 The Case Company	23
1.7.2 DBPs' Charter	24
1.7.3 Organisational Structure	25
1.7.4 Objectives of DBP	26
1.7.5 Its' Publishing Operations Structure	27
1.8 Research Framework	28
1.9 Thesis Structure	29
1.9.1 Chapter 1: Introduction	29
1.9.2 Chapter 2: Literature Review	29
1.9.3 Chapter 3: Methodology	29
1.9.4 Chapter 4: Research Findings – Preliminary Study	29
1.9.5 Chapter 5: Research Findings – Focused Study	29
1.9.6 Chapter 6: Data Analysis	30
1.9.7 Chapter 7: Discussions and Conclusions	30
Chapter 2 Literature Review	32
2.1 Introduction	32
2.2 E-Transformation Literature	32
2.2.1 Background	32
2.2.2 Perspectives from the Publishing Industry	39
2.2.3 Issues in E-Transformation	42
2.2.3.1 Managing contents	42
2.2.3.2 Transformation in the publishing industry	43
<i>2.2.3.3 Transformation in the public sector</i>	46
2.2.3.4 Disruptive innovation	54
2.2.4 Summary of E-Transformation Literature	55
2.3 The Publishing Industry Literature	56
2.3.1 The Conventional Processes	56

2.3.2 Other Issues in the Publishing Industry	58
2.3.3 E-Publishing Business Models	59
2.3.4 Free Access Model	59
2.3.5 E-Publishing Issues	60
2.3.6 Researches in the Publishing Industry	62
2.4 The Editorial Phase Literature	68
2.4.1 The Role of Editors	68
2.4.2 Challenges in System Implementation in the Process of Editing	72
2.4.3 Proofreaders	73
2.4.4 The Editorial Phase	74
2.4.5 Production Schedule	76
2.4.6 Administration in the Editorial Processes	77
2.4.7 The Online Editing	78
2.4.7.1 The silent model	78
2.4.7.2 The comment model	78
2.4.7.3 The edit trace model	79
2.4.7.4 Traditional model adapted for the computer	79
2.5 Summary	79
Chapter 3 Methodology	82
3.1 Introduction	82
3.2 Research Philosophy	82
3.2.1 Positivism versus Phenomenological	83
3.2.1.1 Positivism	83
3.2.1.2 Phenomenological	83
3.3 Research Purpose	84
3.4 Research Strategy	85
3.4.1 Case Study	85
3.4.2 Units of Analysis	87
3.4.3 Case Study Design	87
3.4.4 Selection of Case	88
3.4.5 Research Strategy Selection	89
3.5 Data Collection Methods	90

3.5.1 Interview	90
3.5.2 Sample	94
3.5.3 Focus Group	95
3.5.4 Selection of Interviewees	95
3.5.5 Documentation and Archival Records	96
3.5.6 Physical Artefacts	97
3.6 Data Analysis Methods	97
3.6.1 Coding and Sorting	100
3.7 Overcoming Bias	100
3.8 Research Quality	102
3.9 Conclusions	104
Chapter 4 Preliminary Case Study Evidence	105
4.1 Introduction	105
4.2 Background Investigation	105
4.2.1 The Infrastructure	105
4.2.1.1 The KaryaNet	105
4.2.1.2 The SPMP	106
<i>4.2.1.3 The administrative structure</i>	106
4.2.2 The Editorial Phase	107
4.2.3 The Organisation	107
4.3 Literature Review Approach	107
4.4 Focus Group Approach	107
4.5 Research Strategy	107
4.5.1 Methods of Analysis	107
4.5.2 Key Themes	108
4.5.3 Grouping of Themes	109
4.5.4 Discussion of Key Themes	111
4.6 Focusing of Themes	116

4.6.1 The Main Issues in the Transformation are Human Factors, Lack of Confidence in the System and Management, Distrustful of the Management Intentions, No Expertise in Certain Areas of Transformation, Insufficient Information Regarding the Transformation and the System and the Most Problematic Area is the Textbook Production	116
4.6.1.1 Human factors	116
4.6.1.2 Lack of confidence in the system and the management; distrustful of the management intentions, no expertise in certain areas of transformation, insufficient information regarding the transformation and the system	117
4.6.1.3 Transformation of the Textbook Division	117
4.6.2 The Implications on Knowledge Intensive Products are Reflected on the Standard and Quality of the Product	117
4.6.3 The Implications on the Editorial Processes are Reflected by the Work Procedure, Work Schedule and Communication in the Flow	118
4.6.4 Editors have Bad Experience and Dissatisfied with the Implementation of SPMP; Editors were Dissatisfied by the Way the Company Addresses the Issues on SPMP and Contracts Signed; the Implication on Editors are Reflected in their Responsibilities, Workload, Commitment and Training	118
4.6.5 The Future Systems Should Take into Consideration Aspects of Transparency, Human Factors, Contractors, Workload and Authority	119
4.7 Developing the Conceptual Model	119
4.8 Conclusion on Focus Study Propositions	122
Chapter 5 Research Findings: Focus Study Evidence	123
5.1 Findings from Preliminary Study	123
5.1.1 Revisiting the High Level Understanding of E- Transformation	123
5.2 Focus Study Research Propositions	124
5.3 Focus Group Interview	124

5.	3.1 Ir	nterviewees	124
5.	3.2 M	lethods of Analysis	127
5.	3.3 Ai	nalysis of the Flow of Data	129
5.4	Addr	essing the Propositions	130
5.	H E W	roposition 1: To Further Explore and Understand the ITEC Issues (Human Factors, Information, Trust, xpertise and Diffidence) In E-Transformation and Vhat Transpired it and How These Issues Affect the ransformation of the Editorial Phase	130
	5.4.1	1 Automation related issues	131
		i. Negative perception and scepticism	132
	5.4.1	2 The issues on management	135
		i. Issues on management	135
		ii. Issues on authority	137
		iii. Issues on government	137
	5.4.1	3 Issues related to human factors	138
		i. Human factors	138
		ii. Diffidence	140
		iii. Distrustfulness	140
		iv. Indifference	141
	5.4.1	4 System development issues	142
		i. System development issues	142
		ii. Computing Division	142
		iii. Contracts	143
		iv. Contractors	143
5.	Ir (S Se W	roposition 2: To Explore and Understand the nplications of E-Transformation on the Product Standard, Quality), Process (Work Procedure, Work chedule,) and the Editors (Responsibilities, Vorkload, Commitment, Training and ommunication) in the Editorial Phase	146
	5.4.2	.1 Understanding issues in quality	146
		i. Issues in quality	147
		ii. Issues in standard	147

5.4.2.2	Un	derstanding the work issues	148
	i.	Issues in work culture	148
	ii.	Issues in work procedure: The manual on work procedure	149
	iii.	<i>Issues in work schedule</i> The Organisations' Scenario – Administrative	149
	iv.	Issues in workload	154
5.4.2.3	Un	derstanding the issues on editors	155
	i.	Issues on creative work	157
	ii.	Issues on editing	158
	iii.	Issues on e-publishing	159
Impi SPM (Tra	leme 'P, M nspc	ion 3: To Explore and Understand System ntation Issues (Editor's Experience with lanagement) and Future System urency, Human Factors, Contractors, d, Authority)	160
5.4.3.1	The	e SPMP issues	160
	i.	The SPMP- overview	160
	ii.	SPMP system guidelines	162
	iii.	Using the manual	162
	iv.	System organisation and function	162
	υ.	The SPMP issues	163
5.3.3.2	Exp	perience issues	164
	i.	Dissatisfaction	164
	ii.	Frustration	165
	iii.	Incompetence	165
	iv.	Unreliable	166
5.3.3.3	Fut	ture systems	166
	i.	Awareness	166
	ii.	Commitment	167
	iii.	Communication	167
	iv.	Expertise	168

v. Security	168
vi. Technology	169
vii. Training	170
5.4 Conclusion	170
Chapter 6 Data Analysis	172
6.1 Revisiting the Conceptual Model	172
6.1.1 Operationalising the Business Model	175
6.2 Association of Variables	177
6.3 Past Experiences with SPMP and its' Effect on Transformation	181
6.3.1 Performance of DBP after SPMP	185
6.4 Addressing Research Objective 1; Research Question 1 What are the issues in e-transformation in the editorial phase?	185
6.4.1 Management Issues	188
6.4.1.1 Ministry effect – top level	190
6.4.1.2 Department effect – (from the Head of Divisions)- lower level	191
6.4.2 Human Factors	192
6.4.3 Perceptions Issues	193
6.4.4 System Development Issues	194
6.4.4.1 Contract and contractors	195
6.4.4.2 Computer Division	195
6.4.4.3 Changes in role	196
6.4.4.4 Technology transfer	196
6.4.5 Conclusion	197

6.5	Ad	ldressing Research Objective 1; Research Question 2	197
		hat are the changes in e-transformation of the owledge intensive phase?	
6.	5.1	Changes in Architectures	197
	6.5	5.1.1 Changes in management structure	197
	6.5	5.1.2 Changes in process structure	198
	6.5	5.1.3 Changes in system structure	199
6.	5.2	Changes in Industry Standards	203
6.	5.3	Integration and Disintegration of Elements	204
6.	5.4	Linkages between Various Elements Across Super System	205
6.	5.5	Substitutions within the Subsystem	205
6.	5.6	Disruption of Workforce	206
6.	5.7	Conclusion	206
6.6	Ad	ldressing Research Objective 1; Research Question 3	207
		hat are the implications on the quality and standard in owledge intensive products?	
6.	6.1	Effects of Transformation on Quality and Standard	208
6.	6.2	Relationship between System Development and Standard and Quality	210
6.	6.3	Conclusion	210
6.7	Ad	ldressing Research Objective 1; Research Question 4	211
		ill e-transformation change the work-related aspects of itors?	
6.	7.1	Effects of Transformation on Work Related Issues	212
6.	7.2	Relationship between Human Factors and Work Related Issues	212
	6.;	7.2.1 Relationship between diffidence, distrustful and indifferent and work culture	212

6.7.2.2	Relationship between diffidence and work procedure	213
6.7.3 Rela	ationship between Human Factors and Workload	214
6.7.3.1	Relationship between diffidence and workload	214
6.7.4 Rela	ationship between Management and Work Related	214
6.7.4.1	Relationship between management and work culture, work procedure and workload	215
, -	ationship between System Development and Work ated	216
6.7.5.1	Relationship between contract and work culture and work procedure	216
6.7.5.2	Relationship between contractors and work culture, work procedure and workload	217
6.7.5.3	Relationship between perceptions and work related issues	217
6.7.5.4	Relationship between negative perceptions and work culture and work procedure	218
6.7.5.5	Relationship between sceptical and work culture and work procedure	218
6.7.5.6	Relationship between sceptical and workload	220
•	ationship between Standard and Quality and rk Related Issues	220
6.7.6.1	Relationship between quality and work procedure	220
6.7.7 Con	clusion	220
6.8 Address	sing Research Objective 1; Research Question 5	221
	re the issues and implications surrounding neering of the editorial processes?	
6.8.1 Edi	ting	221
6.8.1.1	Relationship among variables	222

	i.	T1C1 and T1CT1 (Text 1 Conventional Error and Text 1 Conventional Time)	222
	ii.	T1E1 and T1ET1	223
	iii.	<i>T</i> 2 <i>C</i> 2 and <i>T</i> 2 <i>CT</i> 2	223
	iv.	T1E2 and T2ET2	224
6.8.1.2	Exp	loring differences between groups	225
	i.	Group 1:T1C1 and T1E1	225
	ii.	Group 2:T2C2 and T2E2	226
	iii.	Group 3:T1CT1 and T1ET1	227
	iv.	Group 4:T2CT2 and T2ET2	228
6.8.2 Cree	ative	Disruption	229
6.8.2.1	Mai	nn-Whitney Test 1	229
6.8.2.2	Mai	nn-Whitney Test 2	230
6.8.2.3	Mai	nn-Whitney Test 3	230
6.8.2.4	Mai	nn-Whitney Test 4	231
6.8.2.5	Mai	nn-Whitney Test 5	232
6.8.3 Cor	rrelat	tion of Statistical Data onto Model	233
6.8.4 Con	clusi	on	<b>2</b> 34
6.9 Issues a	and I	mplications on the Editors	234
6.9.1 Rela	ation	ship between Human Factors and Editors	235
6.9.1.1	Rela	ationship between diffidence and editors	236
6.9.1.2	Rela	ationship between distrustful and editors	236
6.9.1.3	Rela	ationship between indifference and editors	237
6.9.2 Rela	ations	ship between Management and Editors	237
6.9.2.1	Rela	ationship between management and editors	237

6.9.2.2 Relationship between authority and editors	238	
6.9.2.3 Relationship between government and editors	238	
6.9.3 Relationship between System Development and Editors	239	
6.9.3.1 Relationship between Computer Division and editors	239	
6.9.3.2 Relationship between contractors and editors	239	
6.10 Addressing Research Objective 2; Research Question 6	240	
How Should Future Systems Works?		
6.10.1 Relationship between Future System and Work Related	241	
6.10.2 Relationship between Future System and Standard and Quality	244	
6.10.3 Relationship between Future System and Editors		
6.10.4 Conclusion		
6.11 Overall Conclusions	247	
Chapter 7 Discussions and Conclusions	248	
7.1 Research Objective 1	248	
7.1.1 Addressing Research Question 1	252	
What are the Issues in E-Transformation in the Editorial Phase		
7.1.1.1 Management issues	252	
7.1.1.2 Human factors	253	
7.1.1.3 Perceptions on automation	253	
7.1.1.4 System development issues	254	
7.1.2 Addressing Research Question 2	254	
What are the Changes and Impacts of E- Transformation on Knowledge Intensive Phase?		

7.1.3	Addressing Research Question 3	255
	What are the Implications on the Quality and Standard in Knowledge Intensive Products?	
7.1.4	Addressing Research Question 4	255
	Will E-Transformation Change the Work Related Aspects of Editors?	
7.1.5	Addressing Research Question 5	256
	What are the Issues and Implications Surrounding Reengineering of the Editorial Processes?	
7.1	1.5.1 Disruption	257
7.1.6	Addressing Research Question 6	258
	What are the Needs of Future Systems in Relation to the Phase?	
7.2 Ac	loption of Framework into Global Industry	259
7.3 Aj	pplicability of Research Model	260
7.4 Gi	uidelines for Business Transformation	261
7.4.1	Aligning Industry Strategy with the Governments' IS Strategy	262
7.4	4.1.1 Selection of software in compliance with Government's OSS	262
7.4	4.1.2 Understanding of technical specifications and standards for OSS	262
7.4	4.1.3 Implementation issues and guidelines	262
7.4	4.1.4 Revise the manual on work procedure	263
7.4	4.1.5 Revise the Company's house styles	263
7.4.2	Adherence to Other Standards and Methods	263
7.4.3	Refer to Company's Requirements	263
7.5 Ec	litorial Workflow	264
7.6 Co	ontributions of this Research	265

<i>7.6.1 Contribution to Evolution in Scholarship Literature</i>	265
7.6.2 Contribution to Editorial Phase Literature	265
7.6.3 Contribution to BPR in the Public Sector Literature	266
7.6.4 Contribution to Malaysian Transformation Literature	266
7.6.5 Contribution to Practice	267
7.7 Limitation of Study	268
7.8 Recommendation for Future Research	269
7.9 Chapter Conclusion	270
8.0 References	271
9.0 Appendices	289
Appendix 1: Interview Questionnaires - Focus Study Interview Questionnaires	289
Appendix 2: Excerpt from the Preliminary Focus Group Interview	290
Appendix 3: Samples of Focus Group Interview	298
Appendix 4: Sample of Text 1- On Screen Editing	308
Appendix 5: Sample of Text 2 - On Screen Editing	310
Appendix 6: Sample of Text 1 – Conventional Editing	311
Appendix 7: Sample of Text 2 – Conventional Editing	314
Appendix 8: Standards in Editing	317
Appendix 9: Data on Editing	318
Appendix 10: Journal Paper	319

# List of Figures

		Page
Figure 1.1	The organisational structure of DBP (compiled by author)	26
Figure 1.2	The editorial process in DBP (compiled by author)	27
Figure 1.3	Overview of the research framework (compiled by author)	28
Figure 1.4	Outline of thesis chapters	31
Figure 2.1	Structure of Literature Review (compiled by author)	32
Figure 2.2	IT-enabled business transformation framework ( <i>from</i> Venkatraman, 1994)	35
Figure 2.3	Alternative approaches to business process redesign ( <i>from</i> Venkatraman, 1994)	37
Figure 2.4	The 7E's in e-Transformation ( <i>from</i> Kapurubandara <i>et al.</i> , 2004)	52
Figure 2.5	Value chain activities of the publishing industry ( <i>from</i> Scupola, 1999)	56
Figure 2.6	Processes involved in the traditional publishing industry (compiled by author based on DBP)	56
Figure 2.7	Model proposed by Björk & Hedlund (2004)	63
Figure 2.8	Web publishing process model ( <i>from</i> Cao <i>et al.</i> , 2005)	64
Figure 2.9	Stage activity model ( <i>from</i> Cao <i>et al.</i> , 2005)	66
Figure 2.10	The significance of editing	73
Figure 2.11	The flow of manuscripts in conventional publishing	76
Figure 2.12	Relationship of editors to other players in the publishing industry (compiled by author)	77
Figure 2.13	Process flow in electronic publishing (compiled by author)	77
Figure 3.1	Procedure for forming a focus group ( <i>from</i> Hussey & Hussey, 1997)	95
Figure 3.2	Outline of research methodology	104
Figure 4.1	Themes gathered from the group interview	109
Figure 4.2	High level understanding of e-transformation	111
Figure 4.3	The conceptual model	120

Figure 4.4	The conceptual model for the publishing industry	120
Figure 5.1	Revisiting the high level understanding of e- transformation	123
Figure 5.2	The flow of data	129
Figure 5.3	Emerging issues in e-transformation in the editorial phase grouped into relevant categories	131
Figure 5.4	Conventional process flow in the editorial phase	154
Figure 6.1	The conceptual model	172
Figure 6.2	Revisiting the findings from focus study	173
Figure 6.3	Refined framework	175
Figure 6.4	Variables on the effect of SPMP and past experiences on transformation	181
Figure 6.5	Emerging issues in the editorial phase	185
Figure 6.6	Leadership model from Ahmed & Abdalla (2000)	189
Figure 6.7	Top management team in DBP	190
Figure 6.8	Model of the upper echelons perspective ( <i>from</i> Carpenter <i>et al.</i> , 2004)	191
Figure 6.9	An integrated model of contextual and CEO influence on technological innovation ( <i>from</i> Papadakis & Bourantas, 1998 )	192
Figure 6.10	Aligning people, processes and technology ( <i>from</i> Martinsons & Chong, 1999)	193
Figure 6.11	Changes in the management structure	198
Figure 6.12 <i>a</i>	Conventional structure	198
Figure 6.12 <i>b</i>	Electronic structure	199
Figure 6.13	Changes in system structure	200
Figure 6.14	Conventional structure (heterogeneous)	201
Figure 6.15	Electronic structure (central repository)	202
Figure 6.16a	Workflow in conventional environment	204
Figure 6.16b	Workflow after transformation	204
Figure 6.17	The impact of transformation on the editorial phase affecting quality	207
Figure 6.18	Variables from the impact of work related issues	211
Figure 6.19	Correlation of statistical data onto model	233

Figure 6.20	Variables on the impact of transformation on the editors	235
Figure 6.21	Variables on future systems	240
Figure 7.1	The conceptual model	250
Figure 7.2	The final model	250
Figure 7.3	Applying the framework to the industry	259
Figure 7.4	The conceptual model	260
Figure 7.5	Proposed workflow	264

# List of Tables

		Page
Table 1.1	Characteristics of the publishing industry's transformation ( <i>from</i> Montgomery, 2000)	5
Table 1.2	Type of editing from the Middle English editing ( <i>from</i> Greetham, 1987)	13
Table 1.3	Types of publishing models described by Mandel (2000) and Henke (2001)	21
Table 2.1	Some views on e-transformation	34
Table 2.2	Some views on business process reengineering	36
Table 2.3	Research conducted on the implication of transformation	39
Table 2.4	The paradigm shift to publishing in the information age ( <i>from</i> Eisenhart, 1994)	40
Table 2.5	Papow's model of the enterprise solutions framework and its relevance to publishers	41
Table 2.6	Evans model of transformation	41
<b>Table 2.7</b>	Some views on business process redesign	42
Table 2.8	Stages in the 7E model in e-transformation [ <i>from</i> Kapurubandara <i>et al.</i> , 2004]	53
Table 2.9	Issues in implementing e-transformation in Sri Lanka ( <i>from</i> Kapurubandara <i>et al.,</i> 2004)	53
Table 2.10	Types of e-publishing business models (compiled by author)	59
<b>Table 2.11</b>	Research carried out in the publishing industry	62
Table 2.12	The stage-activity model for web publishing process: Activities	65
Table 2.13	The role of editors	69
<b>Table 2.14</b>	Handling of manuscripts (from DBP)	75
<b>Table 2.15</b>	Typical production schedule ( <i>from</i> Allen & Curwen, 1995)	76
<b>Table 2.16</b>	Electronic production schedule (compiled by author)	76
Table 2.17	Summarised issues affecting e-transformation, publishing and e-publishing issues and issues in the editorial phase as well as those in the public sectors	81
Table 3.1	Versions of interviews by Silverman (2000)	92
Table 3.2	Approaches to qualitative analysis ( <i>from</i> Crabtree & Miller, 1992)	99

Table 4.1	Grouping of themes into categories	110
Table 4.2	Summary of the impact and changes brought by transformation	121
Table 4.3	Summary of the issues in the public sector and publishing industry	122
Table 6.1	Relationship between selected categories	179
Table 6.2	Extracted from Table 6.1 illustrating the related variables and proposition	181
Table 6.3	Relationships between experiences in transformation and automation	182
Table 6.4	Extracted from Table 6.1 illustrating the related variables and the related proposition	186
Table 6.5	Issues in transformation in the editorial phase	187
Table 6.6	Upper echelon studies, definitions of the TMT (Top Management Team) ( <i>from</i> Carpenter <i>et al.</i> , 2004)	188
Table 6.7	Characteristics of the Head of Divisions in DBP	190
Table 6.8	Tender awarding system of the Government of Malaysia	195
Table 6.9	Categorisation of documents in the editorial phase	205
Table 6.10	Extracted from Table 6.1 illustrating the related variables and proposition	207
Table 6.11	The effect of automation on standard and quality	208
Table 6.12	Statistics on data from 3 sources (A, B)	209
<b>Table 6.13</b>	Frequency table from data collected from 3 sources <b>(C, D, E)</b>	209
Table 6.14	Relationship between system development and standard and quality	210
Table 6.15	Extracted from Table 6.1 illustrating the related variables and proposition	211
Table 6.16	Relationship between human factors and work related issues	212
<b>Table 6.17</b>	Relationship between management and work related	215
Table 6.18	Relationship between system development and work related	216
Table 6.19	Relationship between perception and work related issues	218
<b>Table 6.20</b>	Relationship between standard and quality and work related issues	220

<b>Table 6.21</b>	Editing data collection	221
<b>Table 6.22</b>	Extracted from Table 6.1 illustrating the related variables and proposition	235
Table 6.23	Relationship between human factors and editors	236
<b>Table 6.24</b>	Relationship between management and editors	237
<b>Table 6.25</b>	Relationship between system development and editors	239
<b>Table 6.26</b>	Extracted from Table 6.1 illustrating the related variables and proposition	241
<b>Table 6.27</b>	Relationship between future system and work related	<b>2</b> 41
<b>Table 6.28</b>	Relationship between future system and standard and quality	244
Table 6.29	Relationship between future system and editors	245