

**Survey Of the Use of Information Communication
Technology Tools in CIMB Bank for Decision making**

Submitted by

Mohamed Youniss Youssif Alfakhri

2010/2011



**KOLEJ SASTERA DAN SAINS
(College of Arts and Sciences)
Universiti Utara Malaysia**

**PERAKUAN KERJA KERTAS PROJEK
(Certificate of Project Paper)**

Saya, yang bertandatangan, memperakukan bahawa
(I, the undersigned, certify that)

MOHAMED YOUNISS YOUSSEF
(803308)

calon untuk Ijazah
(candidate for the degree of) **MSc. (Information Communication Technology)**

telah mengemukakan kertas projek yang bertajuk
(has presented his/her project paper of the following title)

**PROJECT / SURVEY OF USE OF INFORMATION COMMUNICATION
TECHNOLOGY TOOL IN CIMB BANK FOR DECISION MAKING**

seperti yang tercatat di muka surat tajuk dan kulit kertas projek
(as it appears on the title page and front cover of project paper)

bahawa kertas projek tersebut boleh diterima dari segi bentuk serta kandungan
dan meliputi bidang ilmu dengan memuaskan.
(that the project paper acceptable in form and content, and that a satisfactory
knowledge of the field is covered by the project paper).

Nama Penyelia Utama
(Name of Main Supervisor): **MDM. KHAIRUL BARIAH AHMAD**

Tandatangan
(Signature)

:

Tarikh
(Date)

:

10 MAY 2010

PERMISSION TO USE

In presenting this thesis in partial fulfillment of the requirements for a postgraduate degree from University Utara Malaysia, I agree that the University Library it may be freely available for inspection. I further agree that permission for copying of this thesis in any manner, in whole or in part, for scholarly purpose may be granted by my supervisor(s) or, in their absence by the Dean of the Graduate School.

It is understood that any copying of the publication or use of this thesis and parts therefore, the financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to University Utara Malaysia for any scholarly use which may be made of any material from my thesis. Requests for permission to copy or to make other use of materials in this thesis, in whole or specific part, should be addressed to.

Dean of Postgraduate

College of Arts and Sciences (UUM-CAS)

Universiti Utara Malaysia

06010 UUM Sintok

Kedah Darul Aman.

ACKNOWLEDGEMENT

Firstly my gratefulness goes to Almighty Allah that I have successfully completed the project. Secondly my special thanks go to Khairul Bariah Binti Ahmad because of his kind assistance and wise decision in supervising me in this project. Also my special thanks go to Dr Kang for being my evaluator and supporting me always regarding my project.

TABLE OF CONTENTS

| | |
|--|----|
| CHAPTER 1 INTRODUCTION | 1 |
| 1.1. INTRODUCTION AND BACKGROUND OF THE STUDY | 1 |
| 1.2. PROBLEM STATEMENT | 5 |
| 1.3. RESEARCH OBJECTIVE | 6 |
| 1.4. RESEARCH QUESTIONS | 6 |
| 1.5. RESEARCH SCOPE | 7 |
| 1.6. SIGNIFICANCE OF THE STUDY | 7 |
| CHAPTER 2 LITERATURE REVIEW | 8 |
| 2.1. INFORMATION AND COMMUNICATION TECHNOLOGY | 8 |
| 2.1.1. TYPES OF COMPUTER | 8 |
| 2.1.2. FUNCTIONS OF ICT (FOR COMMERCIAL USE)..... | 9 |
| 2.1.3. IMPACTS OF ICT | 13 |
| 2.2. DECISION MAKING | 17 |
| 2.3. ICT IN DECISION MAKING | 20 |
| 2.4. DECISION SUPPORT SYSTEM (DSS) | 22 |
| 2.5. GROUP DECISION SUPPORT SYSTEMS (GDSS) | 27 |
| 2.6. FACTORS INFLUENCING ICT USE IN DECISION MAKING | 30 |
| 2.6.1. ORGANIZATIONAL FACTORS | 30 |
| 2.6.2. TECHNICAL FACTORS | 31 |
| 2.6.3. PROCESS FACTORS | 33 |
| 2.7. SUMMARY | 35 |
| 2.8. HYPOTHESIS | 35 |
| 2.9 THEORETICAL FRAMEWORK: | 37 |
| CHAPTER 3 RESEARCH METHODOLOGY | 38 |
| 3.1. INTRODUCTION | 38 |
| 3.2. RESEARCH DESIGN | 39 |
| 3.3. SAMPLING TECHNIQUES | 41 |
| 3.6. DATA ANALYSIS | 42 |

| | |
|--|-----------|
| 3.7. HYPOTHESIS | 43 |
| 3.8. GANTT CHART | 43 |
| CHAPTER 4 ANALYSIS AND RESULT | 44 |
| 4.1. INTRODUCTION | 44 |
| 4.2. RESPONDENT’S DEMOGRAPHIC PROFILE | 45 |
| 4.2.1. THE GENDER OF RESPONDENTS | 46 |
| 4.2.2. THE AGE OF RESPONDENTS | 46 |
| 4.2.3. STATUS | 47 |
| 4.3. VALIDITY OF STUDY INSTRUMENT TESTING | 48 |
| 4.4. FACTOR ANALYSIS:..... | 49 |
| 4.5. DESCRIPTIVE STATISTICS | 51 |
| 4.6. CORRELATIONS AMONG VARIABLES | 51 |
| 4.6.1. REGRESSION ANALYSIS | 52 |
| 4.6.2. ORGANIZATIONAL FACTORS AND ICT TOOLS IN DECISION MAKING..... | 53 |
| 4.6.3. TECHNICAL FACTORS AND ICT TOOLS IN DECISION MAKING | 54 |
| 4.6.4. PERCEIVED PROCESS FACTORS AND ICT TOOLS IN DECISION MAKING..... | 55 |
| 4.7. CONCLUSION | 57 |
| CHAPTER 5 CONCLUSION..... | 58 |
| 5.1. INTRODUCTION | 58 |
| 5.2. RESEARCH SUMMARY | 59 |
| 5.3. RESEARCH IMPLICATION | 61 |
| 5.3.1. IMPLICATION | 61 |
| 5.3.2. ACADEMIC IMPLICATIONS..... | 62 |
| 5.4. DISCUSSION | 63 |
| 5.5. CONCLUSION | 65 |
| REFERENCES | 66 |

LIST OF TABLES

| | |
|--|-----------|
| TABLE 4.1: QUESTIONNAIRE CRITERIA..... | 45 |
| TABLE 4.2: THE GENDER OF RESPONDENTS | 46 |
| TABLE 4.3: THE AGE OF RESPONDENTS | 47 |
| TABLE 4.4: STATUS..... | 47 |
| TABLE 4.5: SUMMARY OF RELIABILITY ANALYSIS | 48 |
| TABLE 4.6 FACTOR ANALYSIS..... | 49 |
| TABLE 4.7: SUMMARY OF DESCRIPTIVE STATISTICS..... | 51 |
| TABLE 4.8: CORRELATION AMONG VARIABLES..... | 52 |
| TABLE 4.9: MODEL SUMMARY..... | 53 |
| TABLE 4.10: COEFFICIENTS..... | 54 |
| TABLE 4.11: COEFFICIENTS..... | 55 |
| TABLE 4.12COEFFICIENTS | 55 |
| TABLE 4.11: COEFFICIENTS..... | 56 |

LIST OF FIGURES

| | |
|---|-----------|
| FIGURE 2.1: TWINS PYRAMIDS OF ORGANIZATIONAL STRUCTURE AND INFORMATION SYSTEM USAGE..... | 16 |
| FIGURE 2.2: INTELLIGENCE, DESIGN, AND CHOICE | 17 |
| FIGURE 2.3: INDEPENDENT VARIABLES..... | 37 |

Abstract

Nowadays, most people use the internet and other forms of information and communication technology to do their business for the purpose of better services. Also people are looking for services that can be not only affordable but also accessible anywhere anytime. Many business organizations are using ICT in various purposes, mainly being performing their activities effectively. The main objective of the study is to investigate the use of ICT tools in business organizations for decision making. The study aims to perform a survey in order to determine the extent of the use of ICT as well as factors associated with the applications among private business offices operations within CIMB Bank, Kedah.

Chapter 1

INTRODUCTION

1.1. Introduction and Background of the Study

According to Hedelin and Allwood, (2002), the growth of Information communication Technology (ICT) is one of the development sectors that has been witnessed in different industries that provides an easy and cheaper ways in generating and sharing of information as a resource for the decision making within an organization. The industries such as banking and finance by their nature, always need accurate information for the proper operation of their functions, therefore they have the greatest impacts due to advancement in ICT. ICT simplifies the process of decision making for all organizations that has adopted it regardless of public or private sector. In this proposed research we try to find out the relativity of using the information and communication technology (ICT) tool to assist in decision making in the private business organization working within CIMB, Kedah.

Malaysia is one of the politically sound and thus is able to focus on other agendas to ensure economic stability and prosperity. Economy is not complete without any reference to ICT for growth and development for economic in Malaysia. The term ICT was first mentioned by the government in the Eighth Malaysia Plan (2001-2005) replacing the widely use of the term information technology.

The contents of
the thesis is for
internal user
only

REFERENCES

- Eighth Malaysia Plan (2001-2005) .A Profile of Malaysian Chief Executive Officers' Use of Information Technology to Support Decision Making. Paper presented at the 7th Australian Conference on Information Systems, Australian
- Aiken, M., Hawley, D., & Zhang, W. (1994). Increasing Meeting Efficiency with a GDSS. *Industrial Management Systems*, 94(8), 13-16.
- Ang, C. L., Davies, M. A., & Finlay, P. N. (2001a). An empirical model of IT usage in the Malaysian public sector. *Journal of Strategic Information Systems*(10), 159-174.
- Bruggen, G. H. V., Smidts, A., & Werenga, B. (2001). The powerful triangle of marketing data, managerial judgement, and marketing management support systems. *European Journal of Marketing*, 35(7/8), 796-816.
- Bryman, A. (1996). Quantity and Quality in Social Research, *Contemporary Social Research*: 18. Routledge, 31-47.
- Donnelly, M., Dalrymple, J. F., & Hollingsworth, I. P. (1994). The use and development of information systems and technology in Scottish Local Government.

International Journal of Public Sector Management, 7(3), 4-15.

Emory, C. W., & Cooper, D. R. (1991). Business Research Method (4th ed.): IRWIN, 332-339.

Feraud, G. J. S. (1998). Research paper: improving strategic decision making in logistics information management – a framework. Logistics Information Management, 11(4), 232-243.

Hedelin, L., & Allwood, C. M. (2002). IT and strategic decision making. Industrial Management & Data Systems, 102(3), 125-139.

Laver, M. (1989). Information Technology: agent of change (1st ed.): Caombridge University Press, 30-31.

Liang, T. P., & Hung, S. Y. (1997). DSS and EIS applications in Taiwan. Information Technology & People, 10(4), 303-315.

Mallach, E. G. (2000). Decision Support and Data Warehouse Systems: McGraw-Hill International Editions.

Nord, J. H., & Nord, G. D. (1995). Why managers use executive support systems:

selecting and using information technology for strategic advantage. *Industrial Management & Data Systems*, 95(9), 24-28.

Pereira, R. E. (1999). Factors influencing consumer perceptions of web-based decision support systems. *Logistics Information Management*, 12(1/2), 157-181.

Pinkerton, J. (1990). *Understanding Information Technology, Basic Terminology and Practice* (1st ed.): Ellis Horwood.

Sekaran, U. (1992). *Instructor's Resource Guide with Test Questions and Transparency Masters* (2nd ed.): John Wiley and Sons.

Sekaran, U. (2000). *Research Methods for Business: A Skill Building Approach* (3rd ed.): John Wiley and Sons.

Wang, Z. M. (1994). Organizational Decision Making and Competence Utilization among Chinese Managers. *Journal of Managerial Psychology*, 9(7), 17-24.

Crowston, 2001, the infraction of the organization behavior, retrieved on 3 Oct 2008.

Tricker, R.I. (1992). *The Management of Organizational Knowledge*, in *Information Systems Research: Issues, Methods and Practical Guidelines*, Galliers, R.D. (ed.), Oxford: Blackwell Scientific.

Utusan Malaysia, (2002). "In Search of a Paradigm for the Discipline of Information Systems," *Future Computer Systems*, Vol. 1, No. 1, pp. 71-97.

Buttery . *Varieties of Quafitative Research*, Beverly Hills, CA: Sage Publications.

Marco, Sorrentina & Carignani, (1999). *The Fund Theory of Accounting and Its Implications for Financial Reports*, The University of Chicago Press.

Johannessen, Olaisen & Olsen, (1999). "MIS Research: A Profile of Leading Journals and Universities," *DATA BASE for Advances in Information Systems*, Vol. 16, No. 1, pp. 3-14.

Nath (2000). *Strategic Planning for Information Systems*,
John Wiley & Sons.

Harrison, (1996). "Business School Deans Assess the Current State of the IS Academic Field," *CAIS*, Vol. 4, Article 4, Sept.

Udo, (2000). "Towards a Theory of Artifacts: A Paradigmatic Base for Information Systems Research," *Journal of Information Systems*,
pp. 3-19.

Mescon, B., and Thill, (2002). "CASE Tools as Organizational Change: Investigating Incremental and Radical Change in Systems Development," *MIS Quarterly*, Vol. 17, No. 3.

Quibria, (2002).*Management Information Systems: Strategy and Action*, McGraw-Hill Intl.

Cardinali, (1998). "Barriers to the Advance of Organizational Science: Paradigm Development as an Independent Variable," *Academy of Management Review*, Vol. 18, No. 4, pp. 599-620.

Morrison, (2001).*Management Education and Development: Drift or Thrust into the 21st Century?*, McGraw-Hill.

Bruggen , D., and Williams, D. (2001). "The Nature of Research: Qualitative or Quantitative, Narrative or Paradigmatic?" *Information Systems Journal*, Vol. 6, pp. 131-146.

Othman, U., Redman, T.C. (1996). *Data Quality for the Information Age*, Boston, MA: Artech House.

Keen, I (1995). *The Knowledge-Creating Company*, Oxford: Oxford University Press.

Nielsen (2000). "CASE Tools as Organizational Change: Investigating Incremental and Radical Change in Systems Development," *MIS Quarterly*, Vol. 17, No. 3.

Ramsay and Nielsen, (2000). "The Best Graduate Schools," *U.S. News & World Report*, April 29, pp. 62-69.