

THE EFFECTS OF ORGANIZATIONAL FACTORS
ON KNOWLEDGE MANAGEMENT EFFECTIVENESS TOWARDS
ORGANIZATIONAL PERFORMANCE IN MALAYSIA

By

MAZITAH HUSSIN

Thesis Submitted to
Othman Yeop Abdullah Graduate School of Business,
Universiti Utara Malaysia,
in Fulfilment of the Requirement for the
Degree of Doctor of Business Administration



Kolej Perniagaan
(College of Business)
Universiti Utara Malaysia

PERAKUAN KERJA TESIS / DISERTASI
(Certification of thesis / dissertation)

Kami, yang bertandatangan, memperakukan bahawa
(We, the undersigned, certify that)

MAZITAH HUSSIN

calon untuk Ijazah
(candidate for the degree of)

DOCTOR OF BUSINESS ADMINISTRATION

telah mengemukakan tesis / disertasi yang bertajuk:
(has presented his/her thesis / dissertation of the following title):

**THE EFFECTS OF ORGANIZATIONAL FACTORS ON KNOWLEDGE MANAGEMENT EFFECTIVENESS
TOWARDS ORGANIZATIONAL PERFORMANCE IN MALAYSIA**

seperti yang tercatat di muka surat tajuk dan kulit tesis / disertasi.
(as it appears on the title page and front cover of the thesis / dissertation).

Bahawa tesis/disertasi tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan, sebagaimana yang ditunjukkan oleh calon dalam ujian lisan yang diadakan pada:

24 Jun 2014.

(That the said thesis/dissertation is acceptable in form and content and displays a satisfactory knowledge of the field of study as demonstrated by the candidate through an oral examination held on:

24 June 2014).

Pengerusi Viva
(Chairman for Viva)

: Prof. Dr. Abdullah bin Hj. Abdul Ghani

Tandatangan
(Signature)

Pemeriksa Luar
(External Examiner)

: Assoc. Prof. Dr. Mohamad Noorman bin Masrek

Tandatangan
(Signature)

Pemeriksa Dalam
(Internal Examiner)

: Assoc. Prof. Dr. Zulkifli bin Mohamed Udin

Tandatangan
(Signature)

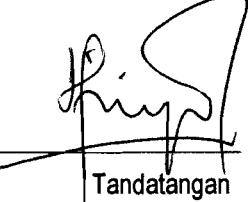
Tarikh: **24 Jun 2014**
(Date)

Nama Pelajar
(Name of Student) : **Mazitah Hussin**

Tajuk Tesis / Disertasi
(Title of the Thesis / Dissertation) : **The Effects of Organizational Factors on Knowledge Management Effectiveness towards Organizational Performance In Malaysia**

Program Pengajian
(Programme of Study) : **Doctor of Business Administration**

Nama Penyelia/Penyelia-penyalia
(Name of Supervisor/Supervisors) : **Dr. Mohamad Hisyam bin Selamat**



Hisyam

Tandatangan
(Signature)

PERMISSION TO USE

In presenting this dissertation in partial fulfilment of the requirements for a postgraduate degree from Universiti Utara Malaysia, I agree that the University Library make a freely available for inspection. I further agree that permission for copying of this dissertation 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 Othman Yeop Abdullah Graduate School of Business. It is understood that any copying or publication or use of this dissertation or parts thereof for financial gain shall not be given to me and to Universiti Utara Malaysia for any scholarly use which may be made of any material from my dissertation.

Request for permission to copy or make other use of materials in this dissertation, in whole or in part should be addressed to:

Dean of Othman Yeop Abdullah Graduate School of Business
Universiti Utara Malaysia
06010 UUM Sintok
Kedah Darul Aman

ABSTRACT

Knowledge Management (KM) has become the centre of attention in most organization lately. Not to be left out, Malaysian Government has also structured their KM Blueprint in guiding the Malaysian Public Sectors for managing their organizational knowledge. This is to improve their service delivery and decision making process through an informed knowledge environment. Nevertheless, the study that has been done by MAMPU showed that the application of KM in the public sector was not fully optimised, due to the lack of the sharing culture and the differences in the understanding of its concept. Although organizations are implementing the KM, however the effectiveness of this process is questionable. Knowledge is seen, not to have been managed effectively and efficiently as well as not been proportionately distributed within an organization. The thesis of this study is looking at the organizational factors that will influence the knowledge management's effectiveness that would provide an impact on the organizational performance. Therefore, this study seeks to deal with the following research questions: i) What are the factors that will affect KM's effectiveness?, ii) Is there any relationship between KM's effectiveness and organizational performance? and iii) Does KM's effectiveness mediate the relationship between knowledge management practices and organizational performance?

An integrative theoretical model of KM's effectiveness and OP was developed. The hypotheses were examined by means of questionnaire surveys to address the research questions and the results were significant. Therefore, the empirical evidence has proven that this model is applicable in the Malaysian contexts. The findings confirmed that organizational factors, KW, OC, KMP and IT do affect the effectiveness of KM. These have provided an impact on OC. It was also proven that KME mediates the effect of KMP towards OP. This study has shed some lights in the area of KM. It is high time for the Malaysian Public Sectors to pay attention on the importance of managing organizational knowledge in order to be able to fulfill the commitments in the service delivery process through an informed knowledge environment.

Keywords: knowledge management effectiveness, organizational performance, organizational factors

ABSTRAK

Sejak akhir-akhir ini, pengurusan pengetahuan (KM) telah menarik perhatian kebanyakan organisasi. Begitu juga kerajaan Malaysia yang telah menstruktur rangka tindakan KM dalam membimbing sektor awam bagi pengurusan pengetahuan organisasi dalam penambahbaikan mutu perkhidmatan dan penyampaian sektor awam, serta mempercepatkan proses membuat keputusan melalui persekitaran berasaskan pengetahuan. Walau bagaimanapun, kajian yang dilakukan oleh MAMPU menunjukkan bahawa penggunaan KM dalam sektor awam tidak dioptimumkan sepenuhnya kerana kekurangan budaya perkongsian dan pemahaman tentang konsep KM. Hal ini menunjukkan bahawa organisasi sememangnya melaksanakan KM, namun keberkesanannya masih dipersoalkan. Pengurusan pengetahuan didapati tidak diuruskan dengan berkesan dan cekap serta pengedaran dan penggunaan pengetahuan tidak secara menyeluruh. Kajian ini dilakukan adalah untuk mengkaji faktor-faktor organisasi yang akan mempengaruhi keberkesanannya pengurusan pengetahuan dan secara langsung akan memberi kesan kepada prestasi organisasi. Kajian ini bertujuan untuk menangani persoalan berikut: i) apakah faktor-faktor organisasi yang memberi kesan terhadap keberkesanannya KM?; ii) adakah terdapat sebarang hubungan di antara keberkesanannya KM dan prestasi organisasi?; dan iii) adakah keberkesanannya KM merupakan pengantara hubungan antara amalan pengurusan pengetahuan dan prestasi organisasi?

Untuk tujuan kajian ini, satu model integratif teori keberkesanannya KM dan OP telah dibangunkan. Kajian ini telah menggunakan kaedah penyebaran dan pengisian borang soal selidik bagi menguji hipotesis dan hasil analisis telah menjawab persoalan dalam kajian ini. Oleh sedemikian, bukti-bukti empirikal menunjukkan bahawa model ini boleh diaplikasikan dalam konteks Malaysia. Penemuan ini mengesahkan bahawa faktor-faktor organisasi, pekerja berpengetahuan (KW), budaya organisasi (OC), amalan pengurusan pengetahuan (KMP) dan teknologi maklumat (IT) memberi kesan kepada keberkesanannya KM yang memberi impak ke atas OC. Ia juga membuktikan bahawa keberkesanannya pengurusan pengetahuan (KME) memainkan peranan sebagai pengantara di antara KMP dan OP. Bagi sektor awam di Malaysia, adalah disyorkan untuk memberi perhatian kepada kepentingan pengurusan pengetahuan dalam organisasi bagi memenuhi penyampaian perkhidmatan yang komited melalui persekitaran berasaskan pengetahuan.

Kata kunci : keberkesanannya pengurusan pengetahuan, prestasi organisasi , faktor organisasi

ACKNOWLEDGEMENT

This dissertation reflects the contribution and insights of many people. I would never have been able to finish my dissertation without the guidance of my supervisor, ideas from colleagues and support from my family.

I would like to take this opportunity to express my deepest gratitude to my supervisor, Dr. Muhammad Hisyam Bin Selamat, for his excellent guidance, patience, and providing me with an excellent feedbacks in doing my dissertation.

I would like to also thank my colleague for sharing his knowledge and expertise in guiding me in familiarizing with AMOS, the tool for Structuring Equation Modelling analysis. After I went through the SEM analysis knowledge-sharing sessions, I would say that my knowledge on AMOS functionalities and SEM analysis is at moderate level which is sufficient for me to conduct the analysis.

My dissertation would not have been possible without their helps. Again, I would like to extend my gratitude to so many of you who have played a significant role in stimulating my thinking and provided encouragement, support and co-operation for this work.

Dr. Muhammad Hisyam Bin Selamat	For supervising my work, provided significant support and advice throughout preparation of the dissertation.
My Colleague	For his fullest support in providing necessary know-how in mastering the AMOS SEM-analysis techniques.
My family	For all the help and support they have provided during my studies. Without their interest and support for me, the DBA exercise would have been impossible.

TABLE OF CONTENTS

		Page	
Chapter ONE	1.1	Introduction	1
	1.2	Background of the study	2
	1.3	Research Problems	6
	1.4	Research Questions	10
	1.5	Research Objectives	10
	1.6	Significance Of The Study	11
	1.7	Scope Of The Study	12
	1.8	Structure Of The Thesis	13
	1.9	Summary	15
Chapter TWO	2.1	Introduction	16
	2.2	Knowledge Management	17
	2.2.1	Overview of Knowledge	17
	2.2.1.1	Tacit Knowledge	20
	2.2.1.2	Explicit Knowledge	21
	2.2.2	Overview of Knowledge Management	23
	2.2.2.1	Evolution of Knowledge Management	23
	2.2.2.2	Knowledge Management Definition	25
	2.2.2.3	Knowledge Management Benefits	27
	2.3	The Effectiveness of Knowledge Management	30
	2.3.1	Knowledge Workers	35
	2.3.2	Organizational Culture	38
	2.3.3	Knowledge Management Practices	41
	2.3.3.1	Knowledge Creation	43
	2.3.3.2	Knowledge Sharing	46
	2.3.3.4	Knowledge Application	49
	2.3.4	Technology	51
	2.4	Organizational Performance	54
	2.5	Underpinning Theories	60
	2.6	Summary	70
Chapter THREE	3.1	Introduction	71
	3.2	Theoretical Framework	71
	3.3	Hypothesis Development	72
	3.3.1	Knowledge Workers	73
	3.3.2	Organizational Culture	74
	3.3.3	Technology	75

	Page
3.3.4 Knowledge Management Practices	77
3.3.5 Knowledge Management Effectiveness and..... Organizational Performance	78
3.4 Summary	80
 Chapter FOUR	
4.1 Introduction	81
4.2 Research Design	82
4.3 Variables' Operational Definition And Measurement	84
4.3.1 Knowledge Workers	85
4.3.2 Organizational Culture	87
4.3.3 Knowledge Management Practices	88
4.3.3.1 Knowledge Creation	89
4.3.3.2 Knowledge Sharing	91
4.3.3.3 Knowledge Application	93
4.3.4 Technology	95
4.3.5 Knowledge Management Effectiveness	97
4.3.6 Organizational Performance	100
4.5 Questionnaire Design	102
4.6 Pre-Test and Pilot Test	105
4.6.1 Pre-Test	105
4.6.2 Pilot Study	106
4.7 Data Collection	108
4.7.1 Sampling	108
4.7.2 Target Population Definition	109
4.7.3 Sampling Method Definition	109
4.7.4 Identifying Sampling Frame	110
4.7.5 Determining Sample Size	111
4.7.6 Sampling Method Adopted In This Study	113
4.8 Data Analysis And Statistical Reporting	116
4.9 Data Analysis Techniques	117
4.9.1 Data Quality Test	118
4.9.2 Instrument Reliability Test	122
4.9.3 Factor Analysis	123
4.9.4 Structural Equation Modelling (SEM)	127
4.9.4.1 Variable Types	127
4.9.4.2 Reflective And Formative Indicators	128
4.9.4.3 Modelling	130

	Page
4.9.4.4 Model Re-fit	133
4.9.4.5 Unidimensional and Construct Validity	134
4.9.4.6 Reliability Testing	135
4.9.4.7 Structural Model Testing	135
4.10 Ethical Consideration	136
4.11 Summary	137
 Chapter FIVE	
5.1 Introduction	138
5.2 Responses	138
5.2.1 Organization's Profile	140
5.2.2 Respondents' Demographic Profile	141
5.2.2.1 Respondents' Age	142
5.2.2.2 Respondents' Gender	143
5.2.2.3 Education Level And Work Experience	143
5.2.2.4 Position And Age	144
5.2.2.5 Job Orientation And Work Experience	145
5.2.3 Descriptive Statistics	146
5.2.3.1 Descriptive Statistics Of Knowledge Workers..	146
5.2.3.2 Descriptive Statistics Of Organizational	147
Culture	
5.2.3.3 Descriptive Statistics Of Knowledge	148
Management Practices	
5.2.3.4 Descriptive Statistics Of Technology	149
5.2.3.5 Descriptive Statistics Of Knowledge	150
Management Effectiveness	
5.2.3.6 Descriptive Statistics Of Organizational	150
Performance	
5.3 Data Examination	151
5.3.1 Missing Data	152
5.3.2 Outliers	152
5.3.3 Normality	153
5.3.4 Common Method Variance	155
5.3.5 Reliability	156
5.3.5.1 Cronbach's Alpha	156
5.3.5.2 Item-Total Statistics	157
5.3.5.3 Corrected Item-Total Correlation	158
5.3.6 Factor Analysis	159
5.3.6.1 Knowledge Workers	160

	Page	
5.3.6.2	Organizational Culture	161
5.3.6.3	Knowledge Management Practices	163
5.3.6.4	Technology	164
5.3.6.5	Knowledge Management Effectiveness	165
5.3.6.6	Organizational Performance	166
5.4	Data Cleaning	167
5.5	Measurement Model Development	171
5.5.1	Initial Model Assessment	173
5.5.1.1	Validity And Reliability Assessment Of Knowledge Workers	174
5.5.1.2	Validity And Reliability Assessment Of Organizational Culture	176
5.5.1.3	Validity And Reliability Assessment Of Technology	177
5.5.1.4	Validity And Reliability Assessment Of Knowledge Management Practices	179
5.5.1.5	Validity And Reliability Assessment Of Knowledge Management Effectiveness	181
5.5.1.6	Validity And Reliability Assessment Of Organizational Performance	183
5.5.2	Final Measurement Model Assessment	185
5.5.2.1	Final Measurement Model Reliability Assessment	187
5.5.2.2	Final Measurement Model Convergent Validity	188
5.5.2.3	Final Measurement Model Discriminant Validity	188
5.5.3	Overall Measurement Model	189
5.6	Structural Equation Modelling	192
5.6.1	Structural Model Fit	192
5.6.2	Hypotheses Testing	195
5.7	Summary	199
Chapter SIX		
6.1	Introduction	202
6.2	Discussion Of Research Findings	204
6.3	Summary	220

	Page
Chapter SEVEN	221
7.1 Introduction	221
7.2 Conclusion	222
7.3 Contributions	224
7.4 Practical Implications	227
7.5 Limitations Of The Study	230
7.6 Recommendations For Future Research	231
7.7 Summary	233

LIST OF TABLES

Table		Page
Table 2.1	Knowledge Categorization Framework	18
Table 2.2	Knowledge Management Evolution	24
Table 2.3	Knowledge Management Definition.....	25
Table 2.4	Summary Of Past Studies On Knowledge Management Enablers	33
Table 2.5	Organizational Factors Used For This Study	34
Table 2.6	Knowledge Management Practices Components	43
Table 2.7	Past Studies With Its Findings And Recommendations	56
Table 2.8	TAM Extended Model (TAM2 and TAM3)	65
Table 2.9	Adopted Variables For The Study	65
Table 2.10	Difference Between Collectivist And Individualist Societies	67
Table 3.1	Hypotheses Testing in Therious	74
Table 3.2	Research objectives and hypotheses of this study	80
Table 4.1	Various Research Strategies And Its Approaches	82
Table 4.2	Item Measures Of Knowledge Workers	86
Table 4.3	Item Measures Of Organizational Culture	88
Table 4.4	Item Measures Of Knowledge Creation	91
Table 4.5	Item Measures Of Knowledge Sharing	92
Table 4.6	Item Measures Of Knowledge Application	94
Table 4.7	Item Measures Of Technology	96
Table 4.8	Various Perspectives Of Knowledge And Knowledge Management Perceptions	98
Table 4.9	Item Measures Of Knowledge Management Effectiveness	99
Table 4.10	Item Measures Of Organizational Performance	101
Table 4.11	Data Collection Method	102
Table 4.12	Information Of Respondent's Background	102
Table 4.13	Perception On The Influence of Organizational Factors On KME Towards OP	103
Table 4.14	Indicators Categorization	104
Table 4.15	Summary Of Independent Variables, Moderating Variables And Dependent Variables	105
Table 4.16	Pilot study - Cronbach's Alpha Value	107
Table 4.17	Knowledge Hub	111
Table 4.18	Past Studies Showing Questionnaire Response Rate	113
Table 4.19	Sampling Units	115
Table 4.20	Graphical and Numerical Methods of Normality Examination	120
Table 4.21	Factorability threshold used in this study	126
Table 4.22	Model Fit Indices And Proposed Acceptance Threshold	131
Table 5.1	Survey Questionnaire Item Deleted Statistics	139

	Page	
Table 5.2	Profile Of Organization	140
Table 5.3	Respondent's Age	143
Table 5.4	Respondent's Gender	143
Table 5.5	Education Level And Work Experience	144
Table 5.6	Position And Age	145
Table 5.7	Job Orientation And Work Experience	145
Table 5.8	Variables	146
Table 5.9	Descriptive Statistics Of Knowledge Worker	147
Table 5.10	Descriptive Statistics Of Organizational Culture	147
Table 5.11	Descriptive Statistics Of Knowledge Management Practices	148
Table 5.12	Descriptive Statistics Of Technology	149
Table 5.13	Descriptive Statistics Of Knowledge Management Effectiveness	150
Table 5.14	Descriptive Statistics Of Organizational Performance	151
Table 5.15	Reliability Statistics – Cronbach's Alpha For Variables	156
Table 5.16	Cronbach's Alpha Value Increases If Item is Deleted	157
Table 5.17	Corrected Item-Total Correlation with $r < .30$	158
Table 5.18	Factorability Threshold Used In This Study	159
Table 5.19	Reference Of Item Codes	159
Table 5.20	Item Loading References Used For Item Deletion	168
Table 5.21	Deleted Items	168
Table 5.22	Variables Count	173
Table 5.23	Measurement Model Fit Indices For Initial Model	173
Table 5.24	Knowledge Worker – Factor Loading, AVE and CR	176
Table 5.25	Organizational Culture – Factor Loading, AVE and CR	177
Table 5.26	Technology – Factor Loading, AVE and CR	179
Table 5.27	Knowledge Management Practices – Factor Loading, AVE and CR	181
Table 5.28	Knowledge Management Effectiveness – Factor Loading, AVE and CR	183
Table 5.29	Organizational Performance – Factor Loading, AVE and CR	184
Table 5.30	Final Measurement Model – Factor Loading, AVE and CR	187
Table 5.31	Summary Of Construct AVE and Inter-Construct Squared Correlation Range	188
Table 5.32	Final Measurement Model – Unstandardized and Standardized	189
	Regression Weights	
Table 5.33	Initial and Final Measurement Models Fit Indices Comparison	191

	Page	
Table 5.34	Structural Model Parameter Estimates (H_1, H_2, H_3, H_4)	195
Table 5.35	Structural Model Parameter Estimates (H_5)	198
Table 5.36	Structural Model Parameter Estimates (H_6)	199
Table 5.37	Hypotheses Assessment Summary	200

LIST OF FIGURES

Figures		Page
Figure 1.1	Chapter One Outline	1
Figure 1.2	Malaysian Public Sector ICT Strategic Plan : 2011 – 2015	5
Figure 1.3	Knowledge Management Issues In The Public Sector	7
Figure 1.4	Thesis Chapters	13
Figure 2.1	Chapter Two Outline	16
Figure 2.2	Tacit and Explicit Knowledge	19
Figure 2.3	Knowledge Management Repositories	29
Figure 2.4	Knowledge Management Intelligence Hub By Sectors	30
Figure 2.5	SECI Model	61
Figure 2.6	Technology Acceptance Model	64
Figure 2.7	Theories – An Integrated Schema	69
Figure 3.1	Chapter Three Outline	71
Figure 3.2	Theoretical Framework	72
Figure 4.1	Chapter Four Outline	81
Figure 4.2	Reflective Construct	129
Figure 4.3	Formative Construct	130
Figure 5.1	Chapter Five Outline	138
Figure 5.2	Q-Q Plot Of Selected Variables	155
Figure 5.3	Hypothesised Initial Measurement Model	172
Figure 5.4	Hypothesised Initial Measurement Model Of Knowledge Worker ...	175
Figure 5.5	Hypothesised Initial Measurement Model Of Organizational Culture	176
Figure 5.6	Hypothesised Initial Measurement Model Of Technology	178
Figure 5.7	Hypothesised Initial Measurement Model Of Knowledge	180
	Management Practices	
Figure 5.8	Hypothesised Initial Measurement Model Of Knowledge	182
	Management Effectiveness	
Figure 5.9	Hypothesised Initial Measurement Model Of Organizational	183
	Performance	
Figure 5.10	Hypothesised Final Measurement Model	186
Figure 5.11	Structural Equation Modelling Of Theoretical Model	194
Figure 5.12	Hypothesised Path Estimates	197
Figure 6.1	Chapter Six Outline	203
Figure 7.1	Chapter Seven Outline	221

ABBREVIATION

CFA	-	Confirmatory Factor Analysis
CFI	-	Comparative Fit Index
CMV	-	Common Method Variance
EM	-	Expectation Maximization
HSF	-	Harman's single factor
IC	-	Intellectual Capital
ICT	-	Information & Communication Technology
IT	-	Technology
KA	-	Knowledge Application
KC	-	Knowledge Creation
KE	-	Knowledge Management Effectiveness
KLVP	-	Kuala Lumpur / Klang Valley / Putrajaya
KM	-	Knowledge Management
KMP	-	Knowledge Management Practices
KS	-	Knowledge Sharing
K-S	-	Kolmogorov-Smirnov
KW	-	Knowledge Workers
MAMPU	-	Malaysian Administrative Modernization and Management Planning Unit
MAR	-	Missing At Random
MCAR	-	Missing Completely At Random
MDEC	-	Malaysian Development Corporation
NMAR	-	Not Missing At Random
OC	-	Organizational Culture
OP	-	Organizational Performance
PA	-	Public Administration

PCA	-	Principal Component Analysis
PEOU	-	Perceived Ease Of use
PU	-	Perceived Usefulness
RMSEA	-	Root Mean Square Error Of Approximation
SRS	-	Simple Random Sampling
SEM	-	Structural Equation Modelling
SPSS	-	Statistical Package for Social Science
SRMR	-	Standardized Root Mean Residual
TLI	-	Tucker Lewis Index

Chapter ONE

Background of the Study

1.1 Introduction

Chapter ONE provides an overview of extensive study's framework and followed by other thesis chapters. Research background overview and importance of this study are explained in this chapter. In the subsequent section, research problems, research questions, research objective and research scope are offered. This chapter also discusses the significance of the study. Figure 1.1 presents the outline of Chapter ONE.

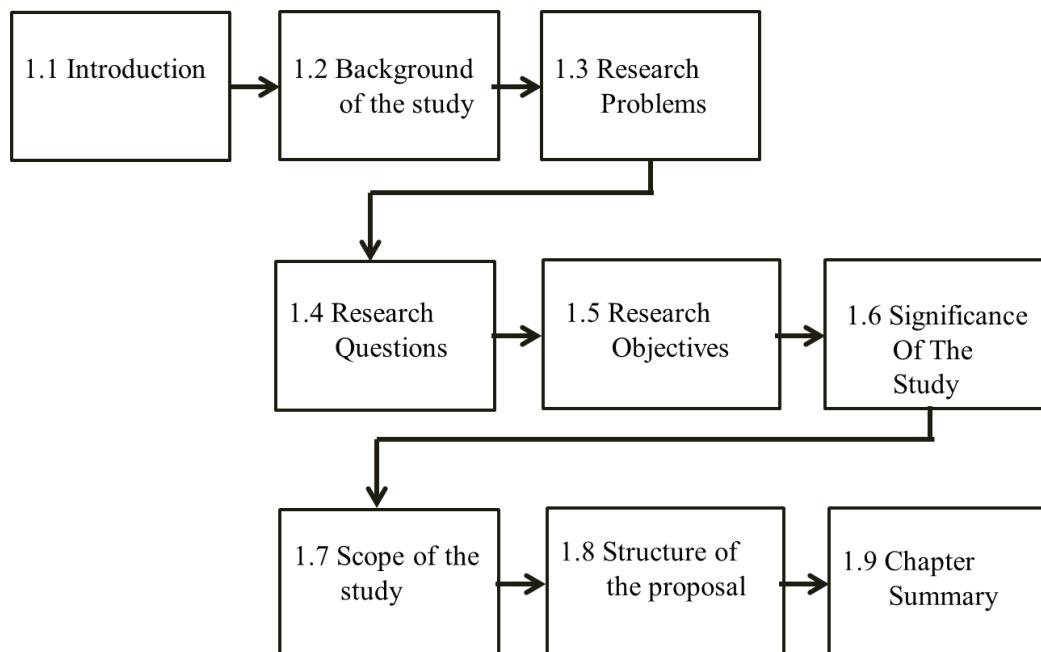


Figure 1.1
Chapter One Outline

The contents of
the thesis is for
internal user
only

REFERENCES

- Acock, A. C. (2005). Working with missing values. *Journal of Marriage and Family*(67), pp. 1012–1028.
- Aguinis, Herman, Gottfredson, Ryan K., & Joo, Harry. (2013). Best-practice recommendations for defining, identifying, and handling outliers. *Organizational Research Methods*, 16(2), 270-301. doi: 10.1177/1094428112470848
- Alavi, M., & Tiwana, A. (2003). "Knowledge management: The information technology dimension," In *Handbook of Organizational Learning and Knowledge Management*, M. Easterby-Smith and M. A. Lyles (eds.), Blackwell Publishing, United Kingdom. pp. 104-121.
- Alavi, Maryam, & Leidner, Dorothy E. (2001). Knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS Quarterly*, 25(1), 107-136.
- Allen, H.B. (1971). Principles of informant selection. *American Speech* (46), pp. 47-51.
- Alter, S. (2002). Information systems: the foundation of e-business. *Upper Saddle River, NJ: Prentice Hall*.
- Altman, D.G., & Bland, J.M. (1996). Detecting skewness from summary information.
- Ardichvili, V., Page, T., & Wentling. (2003). Motivation and Barriers to Participation in Virtual Knowledge-Sharing Communities of Practice. *Journal of Knowledge Management*, 7(1), pp. 64-77.
- Armbrecht, R., Chapas, R., Chappelow, C., Farris, G., Friga, P., Hartz, . . . Whitwell, G. (2001). Knowledge management in research and development. *Research Technology Management*, pp. 28-48.
- Baraldi, Amanda N., & Enders, Craig K. (2010). An introduction to modern missing data analyses. *Journal of School Psychology*, 48(1), 5-37.

Barney, Jay. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.

Basu, A, & Muylle, S. (2003). Online support for commerce processes by Web retailers. . *Decision Support Systems*, 34(4), pp 379–395.

Beauchamp, T.L., & Bowie, N.E. (2004). Ethical Theory and Business, Prentice Hall, Upper Saddle River, NJ.

Becerra-Fernandez, I., Gonzalez, A.J., & Sabherwal, R. . (2004). Knowledge management:Challenges, Solutions, and Technologies.

Bender, Silke, & Fish, Alan. (2000). The transfer of knowledge and the retention of expertise: The continuing need for global assignments. *Journal of Knowledge Management*, 4(2), 125-137.

Bennett, D. A. (2001). How can I deal with missing data in my study? Australian and New Zealand Journal of Public Health. (25), pp. 464–469.

Bernerd, H.R., Pelto, P.J., Werner, O., Boster, J., Romney, A.K., Johnson, A., . . . Kasakoff, A. (1986). The Construction Of Primary Data In Cultural Anthropology. *Current Anthropology*. (27), pp. 382-396.

Bhatt, G.D. (2002). Management strategies for individual knowledge and organizational knowledge. *Journal of Knowledge Management*(6), pp. 31-39.

Bhatt, G.D., Gupta, J.N.D., & Kitchens, F. (2005). An exploratory study of groupware use in the knowledge management process. *Journal of Enterprise Information Management*, 18(1), pp. 28-46.

Bloor, G., & Dawson, P. (1994). Understanding professional culture in organizational context. *Organization Studies*, 15(2), pp. 275-295.

Blumentritt, R., & Johnston, R. (1999). Towards a strategy for knowledge management. *Technology Analysis & Strategic Management*, vol. 11(no. 3), p. 287-300.

Bollen, Kenneth, & Lennox, Richard. (1991). Conventional wisdom on measurement: A structural equation perspective. *Psychological Bulletin*, 110(2), 305-314.

Bollinger, Audrey S., & Smith, Robert D. (2001). Making organizational knowledge a strategic asset. *Journal of Knowledge Management*, 5(1), 8-18.

Bristow, N. (2000). Creating a Knowledge Advantage: Making Knowledge Management Everybody's Job, *Strategy & Leadership*. 28(1).

Broadbent, M. (1997). The emerging phenomenon of knowledge management. *The Australian Library Journal*(Feb), pp. 6-24.

Bukowitz, W.R., & Williams, R.L. (1999). The Knowledge Management Field Book. Byrne, Barbara M. (2010). *Structural equation modelling with AMOS: Basic concepts, applications, and programming*. New York: Routledge.

Campbell, D.T., & Fiske, D.W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological Bulletin*, 56, 81-105

Cantu', Francisco J., Bustani, Alberto, Molina, Arturo, & Moreira, Hector. (2009). A knowledge-based development model: The research chair strategy. *Journal of Knowledge Management*, 13(1), 154-170.

Chang, S.-J., Witteloostuijn, A. V., & Eden, L. (2010). From the editors: common method variance in international business research. *Journal of International Business Studies*, 41, 178-184

Carlsson, S. A., EL Sawy, O.A., Eriksson, I., & Raven, A. (1996). Gaining Competitive Advantage Through Shared Knowledge Creation: In Search of a New Design Theory for Strategic Information System. in Proceedings of the Fourth European Conference on Information Systems, Lisbon.

Chen, M., Huang, M., & Cheng, Y. (2009). Measuring knowledge management performance using a competitive perspective: An empirical study. *Expert Systems with Applications*(36), pp. 8449–8459.

Chua, A. (2004). Knowledge management systems architecture: A bridge between KM consultants and technologies. *International Journal of Information Management* (24), pp. 87-98.

Churchill, Gilbert A. Jr. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 16(1), 64-73.

Coakes, Sheridan J, Steed, Lyndall, & Ong, Clara. (2010). *SPSS : analysis without anguish : version 17.0 for windows*. Milton Qld: John Wiley & Sons.

Cohen, W.M., & Levinthal, D.A. (1990). Absorptive capacity: a new perspective on learning and innovation. *Administrative Science Quarterly*, 35, pp. 128-152.

Coltman, Tim, Devinney, Timothy M., Midgley, David F., & Venaik, Sunil. (2008). Formative versus reflective measurement models: Two applications of formative measurement *Journal of Business Research*, 61, 1250-1262.

Conner, Kathleen R., & Prahalad, C. K. (1996). A Resource-based theory of the firm-knowledge versus opportunism. *Organization Science*, 7(5), 477-500.

Conway, S.D. (2007). The Think Factory – Managing Today’s Most Precious Resource. John Wiley.

Costello, A. B., & Osborne, J. W. (2005). Exploratory Factor Analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research, and Evaluation*, 10(7), pp. 1-9.

Crampton, S.M., & Wagner, J.A. (1994). Perception inflation in microorganizational research: An investigation of prevalence and effect. *Journal of Applied Psychology*, 79, 67-76

Crowley, B. (2000). Tacit knowledge and quality assurance: bridging the theory-practice divide. In T. K. Srikantaiah & M. E. D. Koenig (Eds.). *Knowledge management for the information professional* Medford, NJ: Information Today., pp. (205-220).

Curley, K.F., & Kivowitz, B. (2001). The manager’s pocket guide to knowledge management, Massachusetts: HRD Press.

Daft, R.L. (2000). Organization Theory and Design. *South-Western College Publishing, Thomson Learning*. U.S.A.(7th ed.).

Darroch, J. (2005). Knowledge management, innovation and firm performance. *Journal of Knowledge Management*, 9(3), pp. 101-115.

Davenport, T.H., & McElroy, M.W. (2000). Working Knowledge; How Organization Manage What They Know, Harvard Business School Press, Boston, MA.

Davenport, Thomas H. (1997). Information ecology. Oxford, UK: Oxford University Press.

Davenport, Thomas H. (1999). Human Capital: What it is and Why People Invest it. Jossey-Bass: San Francisco, CA.

Davenport, Thomas H. (2005). *Thinking for a Living: How to Get Better Performances and Results from Knowledge Workers*. Boston, MA: Harvard Business School Press.

Davenport, Tomas H., & Prusak, Laurence. (1998). Working Knowledge: How Organizations Manage What They Know. *Boston, MA: Harvard Business School Press*.

Davis, F.D. (1989). Perceived usefulness, perceived ease of use and user acceptance of information technology. *MIS Quarterly*, 13(3), pp. 319-339.

De la Vega, A.F.R., & Stankosky, M. (2006). Knowledge Management And Innovation: What Must Governments Do To Increase Innovation? *Journal of Knowledge Management Practice*, vol. 7(no. 4.).

de Vaus, David. (2002). *Analyzing Social Science Data*. London: Sage Publications.
DeLong, D. W. (1997). Building the knowledge-based organization: How culture drives knowledge behaviors (working paper). Boston: Ernst & Young's Center for Business Innovation.

DeLong, D. W., & Fahey, L. (2000). Diagnosing cultural barriers to knowledge management. *Academy of Management Executive*, 14(4), pp. 113-127.

Diamantopoulos, Adamantios, & Siguaw, Judy A. (2006). Formative versus reflective indicators in organizational measure development: A comparison and empirical illustration. *British Journal of Management*, 17, 263-282.

Doty, D.H., & Glick, W.H. (1998). Common method bias: Does common methods variance really bias result? *Organizational Research Method*, 1, 374-406.

Dougherty, V. (1999). Knowledge is about people, not databases. *Industrial and Commercial Training*. 31, 7(pp. 262–266).

Drucker, P. (2000). Knowledge Work. *Executive Excellence*.

Drucker, P. F. (1954). Landmarks of Tomorrow. A Report on the New 'Post-Modern' World. *Transaction Publisher London. ISBN 1-56000-622-6*.

Drucker, P.F. (1993). *Managing for Results*. New York: HarperCollins Publishers.

Duffy, J. (2000). 'Knowledge management: to be or not to be?'. *Information Management Journal*, vol. 34(no. 1), pp. 64-70.

Duhon, B. (1998). 'It's all in our heads'. *Inform*, vol. 12(no. 8), pp. 8-13.

Dyer, J.H., & Nobeoka, K. (2000). Creating and managing a high-performance knowledge-sharing network: the Toyota case. *Strategic Management Journal*, 21, pp. 345-367.

Earl, M. (2001). Knowledge Management Strategies: Toward A Taxonomy. *Journal of Management Information Systems*, 18(1), pp. 215-233.

Erhardt, N. (2003). Enablers and Barriers for Individuals' Willingness and Ability to Share Knowledge: An Exploratory Study. Rutgers University, Piscataway, NJ.

Fazli, S., & Alishahi, A. (2012). Investigating The Relationships Between Organizational Factors (Culture, Structure, Strategy) And Performance Through Knowledge Management. *American Journal of Scientific Research*(44), pp. 116-130.

Ferraro, G.P. (1998). The Cultural Dimensions of International Business, Prentice-Hall, Englewood Clifffs, NJ.

Filemon, A., & J., Uriarte. (2008). Introduction to Knowledge Management. *ASEAN Foundation, Jakarta, Indonesia*.

Floyd, Frank J., & Widaman, Keith F. (1995). Factor analysis in the development and refinement of clinical assessment instruments. *Psychological Assessment*, 7(3), 286-299.

Ford, D.P., & Chen, Y.E. (2003). Knowledge sharing in a multi-cultural setting : a case study. *Knowledge Management Research & Practice*, 1(1), pp. 11-27.

Gargiulo, M., & Benassi, M. (2000). Trapped in your own net: network cohesion, structural holes, and the adaptation of social capital. *Organization Science*, 11, pp. 183-201.

Gattiker, T.F, & Goodhue, D.L. (2004). Understanding the local-level costs and benefits of ERP through organizational information processing theory. *Information & Management*, 41, pp 431-443.

Ghemawat, P. (1986). Sustainable advantage. *Harvard Business Review*(September-October), pp, 53-58.

Gill, John, & Johnson, Phil. (1997). Research Methods for Managers, 2nd edition, London: Chapman.

Gold, A. H., Malhotra, A., & Segars, A.H. (2001). Knowledge management: An organizational capabilities perspective. *Journal of Management Information Systems*, 18(1), pp. 185-214.

Gorelick, C., & Tantawy-Monsou, B. (2005). For performance through learning, knowledge management is the critical practice. *The Learning Organization*, 12(2), 125-139.

Grant, Robert M. (1996a). Prospering in Dynamically-competitive Environments: Organizational Capability as Knowledge Integration. *Organization Science*, 7(4), 375-387.

Grant, Robert M. (1996b). Toward a Knowledge-based Theory of the Firm. *Strategic Management Journal*, 17(Winter), 109-122.

Gray, P., & Tehrani, S. (2003). Technology for disseminating knowledge. In: Holsapple C.W. (Ed.). *Handbook on knowledge management and knowledge directions*. Springer: Heidelberg. pp. 110-127.

Gupta, Anil K., & Govindarajan, Vijay. (2000a). Knowledge Flows Within Multinational Corporations. *Strategic Management Journal*, 21(4), 473-496.

Gupta, Anil K., & Govindarajan, Vijay. (2000b). Knowledge Managements Social Dimension: Lessons From Nucor Steel. *Sloan Management Review*, Fall 2000, 71-80.

Hair, Joseph F. Jr., Black, William, C., Babin, Barry J., & Anderson, Rolph E. (2010). *Multivariate Data Analysis* (7th ed.). Upper Saddle River, NJ: Prentice Hall.

Hair, Joseph F. Jr., Black, William C., Babin, Barry J., Anderson, Rolph E., & Tatham, Ronald L. (2006). *Multivariate Data Analysis* (6th ed.). Upper Saddle River, NJ: Pearson Education Inc.

Halawi, L., Aronson, J., & McCarthy, R. (2005). Resource-Based View of Knowledge Management for Competitive Advantage. *The Electronic Journal of Knowledge Management*, vol. 3(no. 2), pp. 75-86.

Hansen, M.T., Nohria, N., & Tierney, T. (1999). ``What's your strategy for managing knowledge?'' *Harvard Business Review*(March-April), pp. 106-116.

Harrison, R.T., & Leitch, C.M. (2000). Learning and Organization in the Knowledge-Based Information Economy: Initial findings from a participatory action research case study. *Brit. J. Manag.*, 11, 103-119.

Hasher, L., & Zacks, R. T. (1979). Automatic and effortful processes in memory. *Journal of Experimental Psychology: General*, 108(3), pp. 356-388.

Heisig, Peter. (2009). Harmonisation of Knowledge Management - Comparing 160 KM Frameworks around the Globe. *Journal of Knowledge Management*, 13(4), 4-31.

Hendriks, P. (1999). Why share knowledge? The influence of ICT on the motivation for knowledge sharing. *Knowledge and Process Management*, 6(2), pp. 91-100.

Henry, G.T. (1990). Practical Sampling. London: Sage Publications. 21.

Henson, R. K., & Roberts, J. K. (2006). Use of exploratory factor analysis in published research. *Educational and Psychological Measurement*. 66(3), pp. 393-416.

Hofstede, G. (2001). Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations (2nd ed.). Thousand Oaks, Sage.

Holton, E.H., & Burnett, M.B. (1997). Qualitative research methods. In R. A. Swanson, & E. F. Holton (Eds.), *Human resource development research handbook: Linking research and practice*. San Francisco: Berrett-Koehler Publishers.

House, R.J., Hanges, P.J., Javidan, M., Dorfman, P., & Gupta, V. (2004). *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*, Sage Publications: Thousand Oaks, CA.

Huber, George P. (1991). Organizational Learning: The Contributing Process and the Literatures. *Organization Science*, 2(1), 88-115.

Hussey, Jill, & Hussey, Roger. (1997). *Business Research. A Practical Guide for Undergraduate and Postgraduate Students*, Palgrave: Basingstoke.

Husted, K., & Michailova, S. (2002). Diagnosing and fighting knowledge sharing hostility. *Organizational Dynamics*, 31(1), 60–73.

Ipe, M. (2003). Knowledge sharing in organizations: A conceptual framework. *Human Resource Development Review*, 2(4), pp. 337–359.

Irmer, B., Bordia, P., & Abusah, D. (2002). Evaluation apprehension and perceived benefits in international and database knowledge sharing, *Academy of Management Proceedings (OCIS)*.

Ives, W., Torrey, B., & Gordon, C. (2003). Knowledge transfer: transfer is human behavior, in Morey, C., Maybury, M. and Thuraisingham, B. (Eds), *Knowledge Management: Classic and Contemporary Works*, MIT Press, Cambridge, MA.

Jarvis, Cheryl Burke, MacKenzie, Scott B., & Podsakoff, Philip M. (2003). A critical review of construct indicators and measurement model misspecification in marketing and consumer research. *Journal of Consumer Research*, 30, 199-218.

Jones, M.C., Cline, M., & Ryan, S. (2006). Exploring knowledge sharing in ERP implementation: an organizational culture framework', *Decision Support Systems*. 41, pp. 434.

Kaiser, K., & Guggenberger, G. (2007). Sorptive stabilization of organic matter by microporous goethite: sorption into small pores vs. surface complexation. *European Journal of Soil Science*, 58(1), pp. 45-59.

Kalling, T. (2003). Knowledge management and the occasional links with performance. *Journal of Knowledge Management*, 7(3), 67-81.

Kappes, S., & Thomas, B. (1993). A model for knowledge worker information support. *Knowledge Worker Information Management*, pp. 1-4.

Kaser, P.A.W., & Miles, R.E. (2001). Knowledge activists: the cultivation of motivation and trust properties of knowledge sharing relationships, *Academy of Management Proceedings* (ODC).

Ketchen, D. J. Jr., & Hult, G. T. M. (2007). Bridging organization theory and supply chain management: The case of best value supply chains. *Journal of Operations Management*. *Journal of Operations Management* 25(2), pp 573–580.

Kingston, J., & Macintosh, A. (2000). Knowledge Management through Multi-perspective Modelling: Representing and Distributing Organizational Memory. *Knowledge Based Systems*, 13, 121-131.

Kline, Rex B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). New York: The Guilford Press.

Koch, T., & Rowell, M. (1997). Pediatric ethics, issues & commentary. A pilot study on transplant eligibility criteria: valuing the stories in numbers. *Pediatric Nursing* 23(2), pp. 160–163, 166–168.

Kogut, Bruce, & Zander, Udo. (1992). Knowledge of the Firm, Combinative Capabilities, and the Replication of Technology. *Organization Science*, 3(3), 383-397.

Kokavcova, D., & Mala, D. (2009). Knowledge sharing – the main prerequisite of innovation. *Organizaciju vadyba: sisteminiai tyrimai*. (51), pg. 47-56.

Lai, H., & Chu, T. H. (2000). "Knowledge Management: A Review of Theoretical Frameworks and Industrial Cases," In Proceedings of the 33rd Hawaii International Conference on System Sciences, IEEE.

Lee, H., & Choi, B. (2003). Knowledge management enablers, processes, and organizational performance: an integrative view and empirical examination. *Journal of Management Information Systems*, 20(1), pp. 179-228.

Lee, K.C., Lee, S., & Kang, I.W. (2005). KMPI: measuring knowledge management performance'. *Information & Management*, 42(3), pp. 469-482.

Lee, Y., Kozar, K.A., & Larsen, K.R.T. (2003). The Technology acceptance model: past, present, and future. *Communications of the AIS*, 12(50), pp. 752-780.

Leedy, P., & Ormrod, J. (2001). Practical Research: Planning and Design (7th ed.). Upper Saddle River, NJ: Merrill Prentice Hall. Thousands Oaks: SAGE Publications.

Leonard-Barton, D. (1995). Wellsprings of knowledge: Building and sustaining the sources of innovation. Boston: Harvard Business School Press.

Liebowitz, J., & Megbolugbe, I. (2003). A set of frameworks to aid the project manager in conceptualizing and implementing knowledge management initiatives. *International Journal of Project Management*, 21(3), pp. 189–198.

Lim, K., Ahmed, P., & Zairi, M. (1999). Management for quality through knowledge management. *Total Quality Management Journal*, 10(4/5), pp. 615-621.

Little, Roderick J. A. . (1988). A test of missing completely at random for multivariate data with missing values. *Journal of the American Statistical Association*, 83, 1198-1202.

Liu, H., Shah, S., & Jiang, W. (2004). On-line outlier detection and data cleaning, Computers and Chemical Engineering. (28), pp. 1635–1647.

Lynn, G.S., Morone, J.G., & Paulson, A.S. (1996). Marketing and discontinuous innovation: The probe and learn process. *California Management Review*(38), pp. 8-37.

MacKenzie, Scott B., Podsakoff, Philip M. , & Podsakoff, Nathan P. (2011). Construct measurement and validation procedures in MIS and behavioral research: Integrating new and existing techniques. *MIS Quarterly*, 35(2), 293-334.

Maddouri, M., Elloumi, S., & Jaoua, A. (1998). An incremental learning system for imprecise and uncertain knowledge discover. *Journal of Information Science*(109), pp. 149 – 164.

Malhotra, Y. (2003). Is Knowledge The Ultimate Competitive Advantage? An Interview of Dr. Yogesh Malhotra. *Bus. Manage. Asia*(September), 66-69.

MAMPU, Malaysian Administrative Modernization and Management Planning Unit. (2011). Knowledge Management Blueprint.

Manheim, J. B., & Rich, R. C. (1995). Empirical Political Analysis, 4th Ed. Longman, New York.

Manning, M. (2006). Quantitative Research Methods: Study Guide, 2nd edn, Southern Cross University, Australia.

Marques, D.P., & Simon, F.J.G. (2006). The Effect of Knowledge Management on Firm Performance. *Journal of Knowledge Management*, 10(3), pp. 143-156.

Marr, B., & Schiuma, G. (2001). Measuring and managing intellectual capital and knowledge assets in new economy organisations', in Bourne, M. (Ed.). *Handbook of Performance Measurement*, Gee, London.

Martin Jr., William E., & Bridgmon, Krista D. (2009). Essential elements of experimental and quasi-experimental research. In S. D. Lapan & M. T. Quartaroli (Eds.), *Nonexperimental quantitative research*. San Francisco: John Wiley & Sons.

Martin, W.E. Jr., & Bridgmon, K.D. (2009). Essential Elements of Experimental and Quasi-Experimental Research, in SD Lapan and MT Quartaroli (ed.), *Research Essentials: An Introduction to Design and Practices*, Jossey-Bass, San Francisco.

Marwick, A.D. (2001). Knowledge management technology. *IBM Systems Journal: Knowledge Management*, 40(4).

McCormick, A., Clare, L.M., & Gitters, S.H. (1999). Knowledge management: the new challenge for the 21st century. *Journal of Knowledge Management*, 3(3), pp. 172-179.

McDermott, Richard, & O'Dell, Carla. (2001). Overcoming Cultural Barriers to Sharing Knowledge. *Journal of Knowledge Management*, 5(1), 76-85.

McQueen, R. (1998). Four Views of Knowledge and Knowledge Management, in Proceedings of the Fourth Americas Conference on Information Systems. *E. Hoadley and I. Benbasat (eds.), Baltimore, MD*, pp. 609-611.

McQuitty, Shaun. (2004). Statistical power and structural equation models in business research. *Journal of Business Research*, 57(2), pp. 175-183.

Min, K. J., & Yoon, S.K. (2002). So, What Do You Know? *Far Eastern Economic Review*(165), pp. 34-35.

Mohamed, M., Stankosky, M., & Murray, A. (2006). Knowledge management and information technology: can they work in perfect harmony? *Journal of Knowledge Management*, 10(3), pp. 103-116.

Nelson, Jason M., & Canivez, Gary L. (2012). Examination of the structural, convergent, and incremental validity of the Reynolds Intellectual Assessment Scales (RIAS) with a clinical sample. *Psychological Assessment*, 24(1), 129–140. doi: 10.1037/a0024878

Nelson, R. R., & Winter, S. G. (1982). An Evolutionary Theory of Economic Change. Cambridge: Harvard University Press. in Darroch, J.(2003b). Developing a measure of knowledge management behaviors and practices. *Journal of Knowledge Management*, 7(5), pp. 41-54.

Nemati, H., & Barko, C. (2002). Key factors for achieving organizational data-mining success. *Industrial Management and Data Systems*, 103(4), pp. 282-292.

Neuman, W.L. (2006). Social Research Methods: Qualitative and Quantitative Approaches, 5th ed., Sage, Allyn and Bacon, Boston.

Nonaka, Ikujiro. (1994). A Dynamic Theory of Organizational Knowledge Creation. *Organization Science*, 5(1), 14-37.

Nonaka, Ikujiro. (1999). "The dynamic of knowledge creation", in Ruggles, R. and D. Holtshouse (Ed.), *The Knowledge Advantage: 14 Visionaries Define Market Place Success in the New Economy*. *Capstone Publishing*, pp. 64-87.

Nonaka, Ikujiro. (2007). Strategy as Distributed Phronesis: Knoweldge Creation for the Common Good. Proceedings of the International Productivity Conference, 2007, Bangkok, Thailand "Knowledge Management: From Brain to Business Proceedings".

Nonaka, Ikujiro, & Konno, Noboru. (1998). The concept of "Ba": Building a foundation for knowledge creation. *California Management Review*, 40(3), 40-54.

Nonaka, Ikujiro, & Takeuchi, Hirotaka. (1995). *The Knowledge-creating Company: How Japanese Companies Create the Dynamics of Innovation*. Oxford University Press, New York.

Nooteboom, B. (1999). Innovation, learning and industrial organization. *Cambridge Journal of Economics*, 23(2), pp. 127-150.

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.

O'dell, C., & Grayson, C. (1998). *If Only WeKnew What We Know: The Transfer of Internal Knowledge and Best Practice*. The Free Press, New York.

Ordaz, C., Allez, M., Alcazar, F., Fernandez, P.M., & Cabrera, R. (2004). Internal diversification strategies and the process of knowledge creation. *Journal of Knowledge Management*, 8(1), pp. 77-93.

Paper, D. (1998). BPR: creating the conditions for success. *Long Range Planning*, Vol. 31(No. 3), pp. 426-435.

Parahoo, K. (2006). *Nursing Research: Principles, Process and Issues*, 2nd edn. Palgrave Macmillan, Houndsmill.

Pemberton, J.D., & Stonehouse, G.H. (2000). Organisational learning and knowledge assets, an essential partnership, *The Learning Organization*. 7(4), pp. 184-194.

Peng, C.-Y. J., Harwell, M., Liou, S., -M., & Ehman, L. H. (2006). Advances in missing data methods and implications for educational research. In S. Sawilowsky (Ed.), *Real data analysis*. Greenwich, CT: Information Age. pp. 31–78.

Penrose, Edith T. (1959). *The Theory of the Growth of the Firm*. New York: John Wiley & Sons.

Pett, Marjorie A., Lackey, Nancy R., & Sullivan, John J. (2003). *Making sense of factor analysis: The use of factor analysis for instrument development in health care research*. Thousand Oaks: Sage Publications Inc.

Polanyi, M. (1966). *The Tacit Dimension*. Routledge & Kegan Paul, London.

Polanyi, Michael. (2009). *The Tacit Dimension*. London: The University of Chicago Press.

Porter, Michael E. (2004). *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York: Free Press.

Podsakoff, P.M., MacKenzie, S.B., Lee, J.-Y., & Podsakoff, N.P. (2003). Common method biases in behavioural research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903.

Probst, G., Buchel, B., & Raub, S. . (1998). Knowledge as a strategic resource in G.von Krogh, J. Roos & D. Kleine (eds.) *Knowing in forms: understanding, managing and measuring knowledge*. pp. 240-252.

Quinn, J. B., Anderson, P., & Finkelstein, S. (1996). Leveraging intellect. *Academy of Management Executive*.

Quintas, P., Lefrere, P., & Jones, G. (1997). Knowledge management: A strategic agenda. *Journal of Long Range Planning*(30), pp. 385-391.

Rahman, S. , & Bullock, P. . (2005). Soft TQM, hard TQM and organisational performance relationships: an empirical investigation. *Omega*, Vol. 33 (No. 1), pp. 73-83.

Ramanathan, Narayanan., Richardson, S., & Abdul Latif, Salleh. (2003). Knowledge management: A Malaysian study. *Malaysian Management Review*, 38(1), pp. 79–87.

Rasula, J., Vuksic, B.V., & Stemberger, M.I. . (2012). The Impact of Knowledge Management on Organizational Performance. *Economic and Business Review*, 14(2), pp. 147 – 168.

Reber, A. S. (1993). Implicit learning and tacit knowledge. *New York: Oxford University Press.*

Ribiere, Vincent, & Sitar, Alesa Sasa. (2003). Critical Role of Leadership in Nurturing a Knowledge-supporting Culture. *Knowledge Management Research & Practice*, 1, 39–48.

Roberts, K., & Taylor, B. (1997). Nursing Research Processes: an Australian Perspective, Nelson ITP, Melbourne.

Roth, P. L. (1994). Missing data: A conceptual review for applied psychologists. *Personnel Psychology*. (47), pp. 537–570.

Sabherwal, Rajiv, & Becerra-Fernandez, Irma. (2003). An empirical study of the effect of knowledge management processes at individual, group, and organizational levels. *Decision Sciences*, 34(2), 225-260.

Sanchez, R., Seto, K., Simon, D., Soleki, W., Kraus, F., & Laumnan, G. (2005). Urbanization and Global Environmental Change. Science Plan. International Human Dimensions Program for Global Environmental Change. Bonn.

Schafer, J.L. (1997). The Analysis of Incomplete Multivariate Data. Chapman & Hall.

Schein, E. H. (1985). Organizational culture and leadership. San Francisco, CA: Jossey-Bass.

Schulz, M., & Jobe, L.A. (2001). Codification and tacitness as knowledge management strategies: an empirical exploration. *Journal of High Technology Management Research*, 12(1), pp. 139-165.

Schwab, Donald P. (2005). *Research Methods for Organizational Studies* (2nd ed.). New Jersey: Lawrence Erlbaum Associates

Seleim, A., & Khalil, O. (2007). Knowledge management and organizational performance in the Egyptian software firms. *International Journal of Knowledge Management*, 3(4), pp. 37-66.

Serenko, Alexander, Bontis, Nick Bontis, Booker, Lorne, Sadreddin, Khaled Sadreddin, & Hardie, Timothy. (2010). A Scientometric Analysis of Knowledge Management and Intellectual Capital Academic Literature (1994-2008). *Journal of Knowledge Management*, 14(1), 3-23.

Sharratt, M., & Usoro, A. (2003). Understanding Knowledge-Sharing in Online Communities of Practice. *Electronic Journal on Knowledge Management*, 1(2), pp. 187-196.

Skyrme, D., & Amidon, D. (1998). New measures of success. *Journal of Business Strategy*. 19(1), pp. 20-24.

Spender, J. C. (1996). Making Knowledge the Basis of a Dynamic Theory of the Firm. *Strategic Management Journal*, 17, 45-62.

Stewart, Thomas A. (1998). *The Wealth of Knowledge*.

Sveiby, K.E. (1997). The New Organisational Wealth: Managing and Measuring Knowledge-Based Assets, San Francisco: Berret-Koehler Publishers.

Swart, J., & Kinnie, N. (2003). Sharing knowledge in knowledge intensive firms. *Human Resource Management Journal*. 13(2): 60-75. DOI: 10.1111/j.1748-8583.2003.tb00091.x.

Sweeney, G. (1996). Learning efficiency, technological change and economic progress. *International Journal of Technology Management*, 11(1).

Syed-Ikhsan, S.O.S., & Rowland, F. (2004). Knowledge management in a public organisations in Malaysia: Do people really share? *Journal of Knowledge Management*, 8(2), pp. 95-111.

Tabachnick, Barbara G., & Fidell, Linda S. (2007). *Using multivariate statistics* (5th ed.). Boston: Pearson Education Inc.

Teece, D.J. (1998). Capturing value from knowledge assets: The new economy, markets for knowhow and intangible assets. *California Management Review*, 40(3), pp. 55-79.

Teece, David J., Pisano, Gary, & Shuen, Amy. (1997). Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, 18(7), 509-533.

Theriou, N., Maditinos, D., & Theriou, G. (2010). "Knowledge Management Enabler Factors and Firm Performance: An empirical research of the Greek medium and large firms". International Conference on Applied Business and Economics, Technological Educational Institute of Kavala, Kavala, Greece. pp. 1-20.

Thode, H.J. (2002). Testing for normality. New York: Marcel Dekker.

Thompson, Steven K. (2002). *Sampling* (2nd ed.). New York: John Wiley & Sons Inc.

Toften, K., & Olsen, S.O. (2003). Export market information use, organizational knowledge and firm performance: a conceptual framework. *International MarketingReview*, 20(1), pp. 95-110.

Tomarken, Andrew J., & Waller, Niels G. (2005). Structural Equation Modelling: Strengths, Limitations, and Misconceptions. *Annual Review of Clinical Psychology*, 1, 31-65.

Tracey, M., Mark, A. Vonderembse, & Lim, Jeen-Su. (1999). Manufacturing technology and strategy formulation: keys to enhancing competitiveness and improving performance. *Journal of Operations Management*, 17, 411 - 428.

Treacy, M., & Wiersema, F. (1995). The discipline of market leaders: Choose your customers, narrow your focus, dominate your market. *Addison-Wesley Pub. Co. (Reading, Mass.)*(103), 199-789.

Triandis, Harry C. (1995). Motivation and achievement in collectivist and individualist cultures. 9.

Triandis, Harry C. (1996). The Psychological Measurement of Cultural Syndromes. *American Psychologist*, 51(4), 407-415.

Tseng, S.M. (2010). The Correlation Between Organizational Culture and Knowledge Conversion on Corporate Performance. *Journal of Knowledge Management*, 14(2), pp. 269-284.

Tyndale, P. (2002). A taxonomy of knowledge management software tools: origins and applications. *Evaluation and Program Planning*. (5), pp. 83-190.

Urbaniak, G. C, & Plous, S. (2011). Research Randomizer (Version 3.0). Retrieved from <http://www.randomizer.org/>

Venkatesh, V., & Davis, F.D. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science*(46), pp. 186-204.

Wang, F., & Plaskoff, J. (2002). An intergraded development model for KM, in R.Bellaver and J. M. Lusa (eds.), *Knowledge Management: Strategy and Technology*. Norwood: Artech House.

Wang, Jaw-Kai, Ashleigh, Melanie, & Meyer, Edgar. (2006). Knowledge Sharing and Team Trustworthiness: It's All About Social Ties! *Knowledge Management Research & Practice*, 4, 175–186.

Wang, Wei-Tsong, & Belardo, Salvatore. (2009). The Role of Knowledge Management in Achieving Effective Crisis Management: A Case Study. *Journal of Information Science*, 35(6), 635–659.

Ward, J., & Aurum, A. (2004). Knowledge management in software engineering – Describing the process , 15th Australian Software Engineering Conference (ASWEC 2004) Melbourne, Australia: IEEE Computer Society Press. pp. 137–146.

Weill, P., & Broadbent, M. (1998). Leveraging the New Infrastructure: How Market Leaders Capitalize on Information Technology. Boston MA: Harvard Business School Press.

- Wide'n-Wulff, G., & Soumi, R. (2007). Utilization of information resources for business success: the knowledge sharing model. *Information Resources Management Journal*, 20(1), pp. 46–67.
- Wiig, K. (1995). Knowledge management foundations-thinking about thinking-how people and organizations create, represent, and use knowledge. *Texas: Schema Press Arlington*.
- Wiig, K., Hoog, R., & Spek, R. (1997). Supporting Knowledge Management: a selection of methods and techniques. *Expert Syst. Appl.*, 13(1), pp. 15-27.
- Wilhelmij, P., & Schmidt, R. (2000). ‘Where does knowledge management add value. *Journal of Intellectual Capital*, 1(4), pp. 366-380.
- Williams, G. J., Baxter, R. A., He, H. X., Hawkins, S., & Gu, L. (2002). A Comparative Study of RNN for Outlier Detection in Data Mining, IEEE International Conference on Data-mining (ICDM'02), Maebashi City, Japan, CSIRO Technical Report CMIS-02/102.
- Wong, K. (2005). Critical success factors for implementing knowledge management in small and medium enterprises. *Industrial Management & Data Systems*, 105(3), pp. 261-279.
- Yeh, Y., Lai, S., & Ho, C. (2006). Knowledge management enablers: a case study. *Industrial Management & Data Systems*, 106(6), pp. 793-810.
- Yi, Jialin. (2009). A Measure of Knowledge Sharing Behavior: Scale Development and Validation. *Knowledge Management Research & Practice*, 7, 65–81.
- Zack, M. (1998). An Architecture for Managing Explicated Knowledge. *Sloan Management Review*.
- Zack, M., McKeen, J. , & Singh, S. (2009). Knowledge management and organizational performance: an exploratory analysis. *Journal of Knowledge Management*, Vol. 13(No. 6), pp. 392-409.
- Zack, Michael H. (1999). Managing Codified Knowledge. *Sloan Management Review*, 40(4), 45-58.

Zaim, H., Ekrem, T., & Selim, Z. (2007). Performance of Knowledge Management Practices: a Casual Analysis. *Journal of Knowledge Management*, 11(6), pp. 54-67.

Zikmund, W.G. (2003). Business Research Methods, 7th edn, Thomson/South-Western, Mason, Ohio.