

**ANTECEDENTS OF IT-BUSINESS ALIGNMENT FACTORS IN
INFLUENCING SUSTAINABLE COMPETITIVE ADVANTAGE**

**A Thesis submitted to the Colleges of Arts and Sciences in fulfillment of the
requirements for the degree of Doctor of Philosophy
Universiti Utara Malaysia**

**BY
DMAITHAN A . AL-MAJALI**

©2011, Dmaithan

PERMISSION TO USE

In presenting this thesis in fulfillment of the requirements for a postgraduate degree from University Utara Malaysia, I agree that the University library may make it freely available for inspection. I further agree that permission for copying of this thesis in any manner, in whole or part, for scholarly purposes may be granted by my supervisor or, in their absence, by the Dean of Research and Graduate Studies. It is understood that any copying or publication or use of this thesis or parts thereof for financial gain shall 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 in part should be addressed to:

Dean of Research and Graduate Studies)
College of Arts and Sciences
University Utara Malaysia
06010 UUM Sintok
Kedah Darul Aman

ABSTRAK

Semasa para penyelidik sedang menggalakkan lebih kajian ke atas rangkaian kasual di antara pelaburan Teknologi Maklumat (IT) dan prestasi sesebuah firma, kajian empirik tidak menunjukkan satu hasil kajian yang kukuh. Ia adalah akibat dari tindakan yang tidak mempraktikkan penjajaran strategik dalam bisnes-IT (dikenali sebagai penjajaran strategik). Secara spesifiknya, para sarjana telah meminta supaya kajian yang menekankan kepada anteseden yang membawa kepada penjajaran. Oleh itu, kajian ini telah berjaya mengemukakan satu model ketetapan yang menjelaskan perhubungan antara latar belakang anteseden penjajaran strategik, penjajaran strategik serta kelebihan kompetitif lestari. Secara spesifiknya, kajian ini telah mengkaji impak anteseden penjajaran strategik IT-bisnes dari segi kepimpinan antara pengurus bisnes dan IT, struktur dan proses antara pelan IT dan pelan bisnes dan mengkaji sumber pengurusan IT antara pengurus bisnes dan IT, kualiti perkhidmatan, nilai dan kebolehpercayaan serta kejayaan pelaksanaan IT ke atas penjajaran strategik bisnes IT dalam soal jurang penjajaran. Kesimpulannya, impak perniagaan IT penjajaran strategik juga diuji membawa kesan ke atas kelebihan kompetitif lestari. Dalam meneroka perhubungan penyelidikan di atas, kajian ini menggunakan paradigma positivism. Dengan penggunaan metod ini, data kuantitatif telah dikutip. Secara lebih spesifik lagi, kajian ini telah menguji model penyelidikan ini melalui 172 soal selidik (tinjauan) dengan firma-firma pemegang saham di Jordan. Dapatan keputusan diperolehi menggunakan teknik *Structural Equation Modeling* (SEM) dan beberapa temuduga susulan di Jordan bagi mendapatkan pandangan berguna terhadap soalan kajian. Dapatan dari tinjauan telah menunjukkan betapa kuatnya bukti mengenai impak beberapa angkubah: kepimpinan, kualiti perkhidmatan, nilai dan kepercayaan, sumber pengurusan IT dan kejayaan pelaksanaan IT, mengenai IT - pensejajaran strategik bisnes. Walaubagaimanapun, SEM telah gagal menyokong hubungan struktur dengan proses terhadap pensejajaran bisnes IT. Tambahan pula, dapatan menunjukkan bukti yang kukuh berkaitan impak beberapa perkara berikut: kepimpinan, IT, sumber pengurusan IT dan kejayaan pelaksanaan IT terhadap kelebihan kompetitif lestari. Walaubagaimanapun, SEM juga gagal menyokong hubungan antara kualiti perkhidmatan, nilai dan kepercayaan dan struktur serta proses terhadap kelebihan kompetitif lestari. Tambahan pula, dapatan dari tinjauan menunjukkan bukti kukuh terhadap impak ICT terhadap pensejajaran strategik bisnes ke atas kelebihan kompetitif lestari. Selain itu, dapatan dari tinjauan melalui SEM menunjukkan bukti kukuh dalam menjadi kesan perantara pensejajaran strategik berkaitan hubungan antara nilai dan kepercayaan, kualiti perkhidmatan dan kelebihan kompetitif lestari. Kajian ini telah mengemukakan 'roadmap' yang dapat digunakan oleh para penyelidik dan pengamal memahami sumber-sumber yang diperlukan dan merealisasikan nilai yang bakal diperolehi melalui pelaburan IT mereka. Penyelidikan lanjutan dirasakan perlu bagi mendapatkan pandangan yang lebih jitu terhadap lumrah perhubungan ini.

ABSTRACT

More extensive studies on the causal chain between Information Technology (IT) investments and firm performance have been encouraged by scholars. However, the results of empirical studies have been inconclusive. This is partly due to the exclusion of IT - business strategic alignment (known as strategic alignment). In particular, scholars have continuously called for research to address the antecedent factors that lead to the alignment. As a result, this study has successfully developed a causal model illustrating the relationships between strategic alignment antecedents, strategic alignment and sustainable competitive advantage. Specifically, this study has looked into the impact of IT-business strategic alignment antecedents in terms of leadership between business and IT managers, structures and processes between IT plans and business plans and examined IT managerial resources between business and IT managers, service qualities, values and beliefs, and IT implementation success on IT business strategic alignment in terms of alignment gaps. Finally, the impact of IT-business strategic alignment is also tested for its impact on sustainable competitive advantage. In order to explore the above research relationships, this study has utilized the positivism paradigm. Under this method, quantitative data was collected. More specifically, this study has tested the research model by conducting 172 survey questionnaires with public shareholding firms in Jordan. The results obtained from the structural equation modeling (SEM) technique and interviews have offered very valuable insights into the research questions. The results of the main survey questionnaire show strong evidence for the impact of the following variables: leadership, service quality, value and belief, IT managerial resources and IT implementation success, on IT – business strategic alignment. Conversely, SEM has failed to support the link between structure and process on IT business alignment. In addition, the results show strong evidence for the impact of the following: leadership, IT managerial resource and IT implementation success on sustainable competitive advantage. However, SEM failed to support the link between service quality, value and belief, and structure and process on sustainable competitive advantage. Furthermore, the results from the main survey questionnaire show strong evidence for the impact of IT – business strategic alignment on sustainable competitive advantage. Moreover, the results of the main survey questionnaire through the SEM show strong evidence for the mediating effect of strategic alignment on the relationships between value and belief, service quality and sustainable competitive advantage. This study has provided a detailed roadmap that researchers and practitioners can use in order to understand the resources required, and to realize the potential values of their IT investments. Future research is clearly needed to reveal better insights into the nature of these relationships.

PUBLICATIONS FROM THIS RESEARCH

The following conferences papers and publications have been produced from the research reported in this thesis:

Al Majali, D., & Dahalin, Z. (2010). Diagnosing the gap in IT – business strategic alignment: A qualitative analysis among public shareholding firms in Jordan. *International Journal of Electronic Business Management*, 8(4), 255- 262.

Al Majali, D., & Dahalin, Z. (2010). Antecedents of IT-business strategic alignment in influencing sustainable competitive advantage in Jordan: A structural equation modelling approach, *In the Communications of the International Business Information Management Association (IBIMA) Journal (accepted)*.

Al Majali, D., & Dahalin, Z. (2010). IT – business strategic alignment gap and sustainable competitive advantage in Jordan: Triangulation approach. *In the Communications of the International Business Information Management Association (IBIMA) Journal (accepted)*.

Al Majali, D., & Dahalin, Z. (2010). Antecedents of IT-business strategic alignment in influencing sustainable competitive advantage in Jordan: A structural equation modelling approach. *Proceeding of the 15th IBIMA conference on Innovation and Knowledge Management in Business : A Business Competitive Edge Perspective*, 380 – 393, Cairo.

Al Majali, D., & Dahalin, Z. (2010). IT – business strategic alignment gap and sustainable competitive advantage in Jordan: Triangulation approach. *Proceeding of the 15th IBIMA conference on Innovation and Knowledge Management in Business: A Business Competitive Edge Perspective*, 394 – 405, Cairo.

Al Majali, D., & Dahalin, Z. (2010). IT–business strategic alignment and sustainable competitive advantage. *Proceedings of the Conference of Organizational Innovation*, 4-6 August 2010, Bangkok, Thailand.

Al Majali, D., & Dahalin, Z. (2010). Diagnosing the gap in IT – business strategic alignment: A qualitative analysis among public shareholding firms in Jordan. *Proceedings of the Conference on Innovation and Management*, 7-10 July, Penang, Malaysia.

Al Majali, D., & Dahalin, Z. (2010). IT- business strategic alignment in influencing sustainable competitive advantage in Jordan. *Proceedings of the Conference on Infocomm Technologies in Competitive Strategies*, 25-26 October, Singapore.

Al Majali, D., & Dahalin, Z. (2010). Determinant of IT – business strategic alignment factors in influencing sustainable competitive advantage in Jordan. *Proceedings of the 2nd International Quantitative Sciences And Its Application*, 2- 4 November, Penang, Malaysia.

Masa'deh, R., Shannak , R., Almajali,A., & Dahalin, Z. (2010). Investigating a causal model of IT-business partnership and competitive advantage. *Proceeding of the 14th IBIMA conference on Innovation and Knowledge Management in Business : An Academic Perspective* ,1250 -1260 , Istanbul.

ACKNOWLEDGMENTS

In the name of Allah, the Most Gracious, the Most Merciful. The more we realize how little we know, we come to understand that our accomplishments are not possible without the help of Allah. The following are just a few of the countless people who have helped me to complete my PhD Studies.

Firstly, I want to express my sincere thanks particularly to my supervisor Professor Zulkhairi Md Dahalin, for his guidance, patience, and faith in me. He fostered my academic growth by challenging and inspiring me to reach deeper, to learn more, and to think more critically. I also extend a special thanks to all members of UUM CAS Applied Science who helped me in so many different ways.

I would also like to offer my endless gratitude to my brother, Ayman for his endless love and support. I do appreciate the support that you have given me during all years of my studies. I offer special thanks to Dr Aied muala, Dr Raed masadeh, Dr Malek almajali for their advice and help during the early stage of my study.

Finally, many thanks go to everyone who has helped me in various ways in support of my PhD Journey.

DEDICATION

To My Mother, Sabah, and my Father, Abdelkarim, who constantly inspired me, had unending faith in me, and nourished the passion for learning; who indulged me for endless hours on numerous occasions with memorable conversations and lessons that have lasted a lifetime.

TABLE OF CONTENTS

	Page
PERMISSION TO USE	i
ABSTRAK (Bahasa Malaysia)	ii
ABSTRACT (English)	iii
PUBLICATION FROM THIS RESEARCH	iv
ACKNOWLEDGMENTS	vi
DEDICATION	vii
LIST OF TABLES	xii
LIST OF FIGURES	xiii
LIST OF ABBREVIATION	xiv
CHAPTER ONE: INTRODUCTION	
1.1 Background	1
1.2 Problem Statement	4
1.3 Research Questions	10
1.4 Research Objectives	11
1.5 Motivation of the Study	11
1.6 Scope of Research	12
1.7 Contributions of the Study	13
1.8 Thesis Structure	14
1.9 Summary	16
CHAPTER TWO: LITERATURE REVIEW	
2.1 Introduction	17
2.2 Strategic Alignment Models	20
2.3 Gaps in the Literatures	35
2.4 Strategic IT-Business Alignment Antecedents	38
2.5 Strategic Dimensions of Alignment	42
2.6 Competitive Advantage	47
2.6.1 Strategic alignment and sustainable Competitive advantage	52
2.7 Conceptualization of Strategic Alignment	54
2.7.1 Proposed Conceptual Research Model	59
2.7.2 Model Construct	62
2.7.3 The relationships	67
2.7.4 Hypotheses Formulation	68
2.8 Summary	70

CHAPTER THREE: METHODOLOGY

3.1	Introduction	72
3.2	Research Design	73
	3.2.1 Preliminary study	76
	3.2.2 Survey method	94
3.3	Research Execution	94
	3.3.1 Research Population and Sampling Frame	95
	3.3.2 Adequacy of the Sample Sizes	97
	3.3.3 The Development of Instrument Construct	99
	3.3.4 Questionnaires' Translation	105
	3.3.5 Test Response Bias	105
	3.3.6 Data Collection Methods	106
	3.3.7 Reliability and Validity	109
3.4	Data Analysis Techniques	112
	3.4.1 Structure Equation Modeling (SEM)	112
	3.4.2 Hypothesis Testing	115
3.5	Summary	117

CHAPTER FOUR: QUANTITATIVE ANALYSIS

5.1	Introduction	119
5.2	General Demographic Analysis for the Sample	119
5.3	Test of Response Bias	121
5.4	Response Rate	122
5.5	SEM Analysis Strategy	123
5.6	General Data Examination	124
	5.6.1 Missing Data Analysis	124
	5.6.2 Test of Multivariate Assumptions in SEM	124
	5.6.3 Normality Assessment	124
	5.6.4 Linearity	125
	5.6.5 Multicollinearity	126
	5.6.6 Sample Size	126
	5.6.7 Test of Scale Reliabilities	127
5.7	Measurement Model	128
	5.7.1 Estimation and Model Fit	129
	5.7.2 CFA Procedure	134
	5.7.3 Assessment for Exogenous and Endogenous Variables	137
	5.7.4 Model Modification	138
	5.7.5 Assessing the Unidimensionality of the Constructs	140
	5.7.6 Assessing the Reliability of the Constructs	142
	5.7.7 Assessing the Validity of the Constructs	143
5.8	Structural Model Analysis	145
	5.8.1 Hypotheses Testing of the Study	147
	5.8.2 Result of Strategic Alignment As a mediating Effect	150
5.9	Summary	151

CHAPTER FIVE: CONCLUSION AND DISCUSSION

5.1	Introduction	153
5.2	Discussion of Findings	154
5.2.1	To identify whether IT - business strategic alignment Influence sustainable competitive advantage.	155
5.2.2	To Determine if the Proposed Antecedents Affect Strategic Alignment.	156
5.2.3	To Determine if the Proposed Antecedents Directly Affect Sustainable Competitive Advantage.	163
5.2.4	To identify if Strategic Alignment Mediates the Relationship Between the Proposed Antecedents and Sustainable Competitive Advantage.	166
5.3	Summary of the Research Investigation	171
5.4	Contribution of the Research	174
5.4.1	Theoretical Contributions	175
5.4.2	Practical Contributions	178
5.5	Limitation of the Study	181
5.6	Further Research Consideration	182
5.7	Conclusion	183

REFERENCES	186
-------------------	------------

APPENDICES

Appendix A: The English Language Research Questionnaire	202
Appendix B : The Arabic Language Research Questionnaire	207
Appendix C : Cover Letter to Firm	211
Appendix D: Translated Cover Letter to Firms	212
Appendix E : Test of Response Bias	213
Appendix F : Assessment of Normality	214
Appendix G: Assessment of normality	215
Appendix H : Q – Q Plots of each construct	216
Appendix I : Linearity	218
Appendix J : Multicollinearity Statistics	219
Appendix K: Reliability of Constructs	220
Appendix L: Correlations among the Study Constructs	223
Appendix M: Regression Weights	224
Appendix N: Standardized Direct Effects	224
Appendix O: Standardized Indirect Effects	224
Appendix P: Preliminary study	225

LIST OF TABLES

Table 2.1	Strategic Alignment Perspective	26
Table 2.2	Critical Success Factors for Aligning IT Plans with Business Plans	44
Table 2.3	Major Results of the IT Alignment Planning Process	45
Table 3.1	Informant profile	78
Table 3.2	The Groups and Cods	78
Table 3.3	Summary of Themes	92
Table 3.4	Sample Size (S) For A Given Population Size (N)	98
Table 3.5	Reliability Coefficient for Multiple Items in Pilot Study (n = 30)	100
Table 3.6	The Research Questionnaire's Items	103
Table 3.7	Summary of Survey Field Work	109
Table 4.1	Firm Profile in the Study Sample (N = 172)	120
Table 4.2	Test of Response Bias	121
Table 4.3	Summary of Response Rates	123
Table 4.4	Reliabilities of the Scales (N=172)	128
Table 4.5	Measurement Model Fit Indices	140
Table 4.6	Properties of the Measurement Model	141
Table 4.7	AVE and Square of Correlations between Constructs	145
Table 4.8	Summary of Proposed Results for the Theoretical Model	149
Table 4.9	Mediating Effect of Strategic alignment	151

LIST OF FIGURES

Figure 2.1	The MIT90s framework	21
Figure 2.2	The Henderson and Venkatraman's (1993) strategic alignment model	22
Figure 2.3	The Baets's (1992) model	29
Figure 2.4	Dimensions of strategic fit	34
Figure 2.5	Traditional aspects of alignment	38
Figure 2.6	Business unit IT alignment roadmaps align BU Information requirements with the BU strategic plans	46
Figure 2.7	Research conceptual model	61
Figure 3.1	A SEM Model with an Example of Direct and Indirect Effects	117
Figure 4.1	Measurement model	133
Figure 4.2	Final structural model	146

LIST OF ABBREVIATION

AGFI	Adjusted Goodness – of – Fit Index
AVE	Average Variance Extracted
BU	Business Unit
BP	Business Planning
CA	Competitive Advantage
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CEO	Chief Executive Officer
CIO	Chief Information Officer
EFA	Exploratory Factor Analysis
GFI	Goodness- of- Fit Index
ICT	Information and Communication Technology
IFI	Incremental Fit Index
ISP	Information System Planning
IT	Information Technology
IS	Information Technology implementation Success
LS	Leadership
MIT	Massachusetts Institute of Technology
MIS	Management Information System
MR	Information Technology Managerial Resource
NFI	Normed Fit Index
RMSEA	Root Means Square Error of Approximation
SA	Strategic Alignment
SAM	Strategic Alignment Model
SEM	Structural Equation Model
SP	Structure and Process
SQ	Service Quality
SUS	Sustainable Competitive Advantage
TLI	Tucker-Lewis Index
VB	Values and beliefs

CHAPTER ONE

INTRODUCTION

In this chapter, the researcher will describe the background of the research, statement of the problem, research questions, research objectives, motivation of the study, scope of the research, thesis structure, and finally expected contributions this study is expected to make.

1.1 Background

Due to globalization of businesses, most companies have to compete in a borderless environment. Challenges and opportunities are tremendous in this rapidly changing world. In such an environment, achieving competitive advantages requires the business organizations to be flexible and agile. The term “competitive advantage” has traditionally been described in terms of the attributes and resources of an organization that allow it to outperform others in the same industry or product market (Collis & Montgomery, 1995). Thus, the concept of competitive advantage is described as the organization’s ability to provide more values than its competitors. In other words, it refers to the degree to which the organization, under free market conditions, meets the demands of the market with maintaining and growing its profit levels simultaneously.

The contents of
the thesis is for
internal user
only

REFERENCES

- Aldhmour, F. (2009). Towards understanding the relationship between information and communication technology and competitive advantage in a developing economy. *International Review of Business Research Papers*, 5(1), 307-320.
- Al majali, D., & Dahalin, Z. (2010). Diagnosing the gap in IT – business strategic alignment: a qualitative analysis among public shareholding firms in Jordan. *International Journal of Electronic Business Management*, 8 (4),255- 262.
- Amman Stock Exchange. (n.d.). Retrieved May 04, 2009, from <http://www.ase.com.jo/>
- Anderson, J., & Gerbing, D. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423.
- Ansoff, H. (1987). Strategic management of technology. *Journal of Business Strategy*, 7(3), 28-39.
- Applegate, L., Holsapple, C., Kalakota, R., Radermacher, F., & Whinston, A. (1996). Electronic commerce: Building blocks of new business opportunity. *Journal of Organizational Computing and Electronic Commerce*, 6(1), 1-10.
- Arbuckle, J. (1977). *Amos User Guide, Version 3.6*. Small Water Corporation.
- Avison, D., Jones, J., Powell, P., & Wilson, D. (2004). Using and validating the strategic alignment model. *The Journal of Strategic Information Systems*, 13(3), 223-246.
- Baets, W. (1996). Some empirical evidence on IS strategy alignment in banking. *Information & Management*, 30(4), 155-177.
- Baets, W. (1992). Aligning information systems with business strategy. *The Journal of Strategic Information Systems*, 1(4), 205-213.
- Bagozzi, R. (1996). Measurement in marketing research: Basic principles of questionnaires design. In R. Bagozzi (Ed.), *Principle of Marketing Research*. Cambridge, Blackwell Business.
- Bagozzi, R., & Phillips, L. (1982). Representing and testing organizational theories: A holistic construal. *Administrative Science Quarterly*, 27 (3), 459-489.
- Bagozzi, R., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of The Academy of Marketing Science*, 16(1), 74-94.

- Baker, J., Parasuraman, A., Grewal, D., & Voss, G. (2004). The influence of multiple store environment cues on perceived merchandise value and patronage intentions. *Journal of Marketing*, 66(2), 120-141.
- Baker, M. (2003). *Business and Management Research: How to Complete your Research Project Successfully*. Scotland: Westburn Publishers.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17 (1), 99-120.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Bassellier, G., Benbasat, I., & Reich, B. (2003). The influence of business managers' IT competence on championing IT. *Information Systems Research*, 14(4), 317-336.
- Benbya, H., & McKelvey, B. (2006). Using coevolutionary and complexity theories to improve IS alignment: A multi-level approach. *Journal of Information Technology*, 21(4), 284-298.
- Bentler, P. (1988). Causal modeling via structural equation systems. *Handbook of Multivariate Experimental Psychology*, 2, 317-335.
- Bentler, P., & Chou, C. (1987). Practical issues in structural modeling. *Sociological Methods and Research*, 16(1), 78-117.
- Bentler, P. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107(2), 238-246.
- Bentler, P., & Bonett, D. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological bulletin*, 88(3), 588-606.
- Bergeron, F., & Raymond, L. (1995). The contribution of IT to the bottom line: A contingency perspective of strategic dimensions. *Proceedings of the 16th International Conference on Information Systems*, 167-181, Amsterdam.
- Bergeron, F., Raymond, L., & Rivard, S. (2001). Fit in strategic information technology management research: An empirical comparison of perspectives. *International Journal of Management Science*, 29 (2), 125-142.
- Bergeron, F., Raymond, L., & Rivard, S. (2004). Ideal patterns of strategic alignment and business performance. *Information & Management*, 41(8), 1003-1020.

- Bharadwaj, A. S. (2000). A resource based perspective on information technology capability and firm performance: An empirical investigation. *MIS Quarterly*, 24(1), 169-195.
- Blackburn, S. (1994). *Dictionary of Philosophy*. Oxford University Press: Oxford.
- Bollen, K. (1989). *Structural Equations with Latent Variables*. Wiley: New York.
- Boynton, A., Zmud, R., & Jacobs, G. (1994). The influence of IT management practice on IT use in large organizations. *MIS Quarterly*, 18(3), 299-318.
- Broadbent, M., & Kitzis, E. (2005). *The new CIO leader: setting the agenda and delivering results*: Harvard Business Press.
- Brown, C., & Magill, S. (1994). Alignment of the IS functions with the enterprise: Toward a model of antecedents. *MIS Quarterly*, 18(4), 371-403.
- Brown, R. L. (1996). *Assessing specific mediational effects in complex theoretical models* (Technical Report No. SON-2-96). Schools of Medicine and Nursing, University of Wisconsin-Madison.
- Browne, M., & Cudeck, R. (1993). Alternative ways of assessing model fit. *Testing Structural Equation Models*, 154, 136-162.
- Brown, M. M. (2001). Can ICT address the needs of the poor? *Choices*, June. N.Y. UNDP.
- Bryman, A. (2004). *Social research methods*. New York: Oxford University Press Inc.
- Brynjolfsson, E., & Hitt, L. M. (1998). Beyond the productivity paradox. *Communications of the ACM*, 41(8), 49-55.
- Burn, J., & Szeto, C. (2000). A comparison of the views of business and it management on success factors for strategic alignment. *Information & Management*, 37(4), 197-216.
- Byrd, T., Lewis, B., & Bryan, R. (2006). The leveraging influence of strategic alignment on IT investment: An empirical examination. *Information & Management*, 43, 308-321.
- Byrne, B. (1989). *A primer of LISREL: Basic applications and programming for confirmatory factor analytic models*: Springer New York.
- Byrne, B. (2001). *Structural equation modeling with Amos: basic concepts. Applications, and Programming*, Mahwah, New Jersey.
- Campbell, B., Kay, R., & Avison, D. (2005). Strategic alignment: A practitioner's perspective. *Management*, 18(6), 653-664.

- Carmines, E., & McIver, J. (1981). Analyzing models with unobserved variables. *Social Measurement: Current Issues*, 65-115.
- Celuch, K., Murphy, G., & Callaway, S. (2007). More bang for your buck: Small firms and the importance of aligned information technology capabilities and strategic flexibility. *The Journal of High Technology Management Research*, 17(2), 187-197.
- Chan, Y. (2002). Why haven't we mastered alignment? The importance of the informal organization structure. *MIS Quarterly Executive*, 1(2), 97-112.
- Chan, Y., & Huff, S. (1992). Strategy: An information systems research perspective. *The Journal of Strategic Information Systems*, 1(4), 191-204.
- Chan, Y., & Huff, S. (1993). Investigating information systems strategic alignment. *The Proceedings of the 14th International Conference on Information Systems*, 345-363, Orlando.
- Chan, Y., Huff, S., Barclay, D., & Copeland, D. (1997). Business strategic orientation, information strategic organization, and strategic alignment. *Information Systems Research*, 8 (2), 125-150.
- Chan, Y., & Reich, B. (2007). IT alignment: what have we learned? *Journal of Information Technology*, 22(4), 297-315.
- Chan, Y., Sabherwal, R., & Thatcher, J. (2006). Antecedents and outcomes of strategic IS alignment: An empirical investigation. *IEEE Transactions on Engineering Management*, 53(1), 27- 47.
- Chandler, A. (1962). *Strategy and structure: Chapters in the history of the American industrial enterprise*: Beard Books Inc.
- Chang, L., & Powell, P. (1998). Towards a framework for business process re-engineering in small and medium-sized enterprises. *Information Systems Journal*, 8(3), 199-215.
- Chau, P. (1997). Reexamining a model for evaluating information center success using a structural equation modeling approach. *Decision Sciences*, 28(2), 309-334.
- Cheng, E. (2001). SEM being more effective than multiple regression in parsimonious model testing for management development research. *Journal of Management Development*, 20(7), 650-667.
- Chin, W. (1998). Issues and opinion on structural equation modeling. *Management Information Systems Quarterly*, 22(1), 7-16.
- Cho, H., & Pucik, V. (2005). Relationship between innovativeness, quality, growth, profitability, and market value. *Strategic Management Journal*, 26(6), 555-575.

- Choe, J. (2003). The effect of environmental uncertainty and strategic applications of IS on a firm's performance. *Information & Management*, 40(4), 257-268.
- Chou, T., Chang, P., Cheng, Y., & Tasi, C. (2007). A path model linking organizational knowledge attributes, Information processing capabilities, and perceived usability. *Information & Management*, 44, 408-417.
- Christensen, K. & Fahey, L. (1984). Building distinctive competences into competitive advantage. *Strategic Planning Management*, 113-23.
- Churchill, G. (1999). *Marketing Research: Methodological Foundation*, New York: The Dryden Press.
- Churchill, G. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 16, pp. 64-73.
- Coakes, S. J., & Steed, L. G. (2003). *SPSS Analysis without Anguish*. Sydney, Australia: John Wiley & Sons.
- Coakley, J. R., Fiegner, M. K., Leader, B. A., & White, D. M. (1995). An approach to assess the degree of integration between an organization's is and business strategies. *Proceedings of the 1st Americas Conference on Information Systems*, 220-222.
- Collis, D., & Montgomery, C. (n.d.). Competing on Resources: Strategy in the 1990s. *Knowledge and Strategy*, 25-40.
- Collis, D. J., & Montgomey, C. A. (1995). Competing on resources: Strategy in the 1990. *Havard Business Reivew*, 73(40), 118-128.
- Collis, D. J., & Montgomey, C. A. (1995). Competing on Resources: Strategy in the 1990. *Havard Business Reivew*, 73(40), 118-128.
- Cragg, P., & King, M. (1993). Small-firm computing: motivators and inhibitors. *MIS Quarterly*, 17(1), 47-60.
- Cragg, P., King, M., & Hussin, H. (2002). IT alignment and firm performance in small manufacturing firms. *The Journal of Strategic Information Systems*, 11(2), 109-132.
- Croteau, A., & Bergeron, F. (2001). An information technology trilogy: business strategy, technological deployment and organizational performance. *The Journal of Strategic Information Systems*, 10(2), 77-99.
- Croteau, A., Bergeron, F., & Raymond, L. (2001). Business strategy and technological deployment: Fit and performance. *Information System and Management*, 6 (4).

- Davies, H. T., & Crombie, L. K. (2009). What are confidence intervals and p-values? Published by Hayward Medical Communications, a division of Hayward Group Ltd. (2009). Decrop, A. (2000). Tourists' Decision-Making and Behavior Processes. *Consumer Behavior in Travel and Tourism Haworth Press*, 103-135.
- Day, G., & Wensley, R. (1988). Assessing advantage: A framework for diagnosing competitive advantage superiority. *The Journal of Marketing*, 52(2), 1-20.
- Day, G. (1994). *Strategic Market Planning: The Pursuit of Competitive Advantage*. West Publishing, St Paul, MN.
- De Villiers, R. (2006). *Sources of sustainable competitive advantage for business operating in global market place*. Unpublished doctoral Dissertation, University of Pretoria: The USA
- DeLone, W., & McLean, E. (1992). Information systems success: the quest for the dependent variable. *Information Systems Research*, 3(1), 60-95.
- Dong, X., Liu, Q., & Yin, D. (2008). Business performance, business Strategy, and information system strategic alignment: an empirical study on Chinese firms. *Tsinghua Science and Technology*, 13 (3), 348-354.
- Drazin, R., & Van de Ven, A. (1985). Alternative forms of fit in contingency theory. *Administrative Science Quarterly*, 514-539.
- D'Souza, D., & Mukherjee, D. (2004). Overcoming the challenges of aligning IT with business. *Information Strategy: The Executive's Journal*, 20(2), 23-31.
- Earl, M. (1993). Experiences in strategic information systems planning. *MIS Quarterly*, 17(1), 1-24.
- Earl, M., & Feeny, D. (1994). Is your CIO adding value. *Sloan Management Review*, 35 (3), 11-20.
- Feeny, D., Edwards, B., & Simpson, K. (1992). Understanding the CEO/CIO relationship. *MIS Quarterly*, 16(4), 435- 448.
- Feldman, R. (2004). Methodological naturalism in epistemology. In J. Greco & E. Sosa, *The Blackwell Guide to Epistemology*, USA: Blackwell Publishing.
- Fink, L., & Neumann, S. (2009). Exploring the perceived business value of the flexibility enabled by information technology infrastructure. *Information & Management*, 46, 90-99.
- Fornell, C., & Larcker, D. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Galbraith, J. (1977). *Organization Design Reading*. Massachusetts, Addison-Wesley.

- Galliers, R., Meriali, Y., & Spearing, L., (1994). Coping with information technology? How British executives perceive the key information systems management issues in the mind-1990s. *Journal of Information Technology*, 9, 233-238.
- Gerbing, D., & Anderson, J. (1992). Monte carlo evaluations of goodness of fit indices for structural equation models. *Sociological Methods and Research*, 21, 132-160
- Grindley, K. (1992). Information systems issues facing senior executives: The culture gap. *The Journal of Strategic Information Systems*, 1(2), 57-62.
- Guba, E., & Lincoln, Y. (1994). Competing paradigms in qualitative research. *Handbook of Qualitative Research*, 2, 163-194.
- Hair, J., Black, W., Babin, B., Anderson, R., & Tatham, R. (1998). *Multivariate Data Analysis*: Prentice hall Upper Saddle River, NJ.
- Hair, J., Black, W., Babin, B., Anderson, R., & Tatham, R. (2006). *Multivariate Data Analysis*. Upper Saddle River, NJ: Prentice Hall.
- Hair Jr, J., Anderson, R., Tatham, R., & Black, W. (1995). *Multivariate Data Analysis: With Readings*. Prentice-Hall, Inc. Upper Saddle River, NJ, USA.
- Hatcher, L. (1994). *A Step-By-Step Approach to Using the SAS System for Factor Analysis and Structural Equation Modeling*. SAS Publishing.
- Henderson, J., & Venkatraman, N. (1993). Strategic alignment: Leveraging information technology for transforming organizations. *IBM systems Journal*, 32(1), 4-16.
- Henderson, J. C., & Venkatraman, N. (1999). Strategic Alignment: Leveraging information technology for transforming organizations. *IBM Systems Journal*, 38(2&3), 472-484.
- Hill, C., & Jones, G. (2001). *Strategic Management Theory*: Houghton Mifflin.
- Hirschheim, R., & Sabherwal, R. (2001). Detours in the path toward strategic information systems alignment. *California Management Review*, 44(1), 87-108.
- Hodgkinson, S. (1996). The role of the corporate IT function in the federal IT organization. *Information Management: The organizational Dimension*, 247-268.
- Hoelters, J. (1983). The analysis of covariance structures: Goodness-of-fit indices. *Sociological Methods and Research*, 11, 325-344.

- Holmes-Smith, P. (2001). Introduction to Structural Equation Modelling Using LISREAL. *Perth: ACSPRI-Winter Training Program.*
- Holton, G. (1993). *Science and Anti-Science*: Harvard Univ Pr.
- Horovitz, J. (1984). New perspectives on strategic management. *Journal of Business Strategy*, 4(3), 19-33.
- Hu, Q., & Huang, C. (2005). Aligning IT with firm business strategies using the balance scorecard system. *Proceedings of the 38th Hawaii International Conference on System Sciences.*
- James, L., Mulaik, S., & Brett, J. (1982). *Causal analysis: Assumptions, Models, and Data*. Sage Publications, Inc.
- Jardine, D. (1990). Awakening from Descartes' nightmare: On the love of ambiguity in phenomenological approaches to education. *Studies in Philosophy and Education*, 10(3), 211-232.
- Jayaraman, N., & Tandon, K. (1993). The impact of international cross listings on risk and return: The evidence from American Depository Receipts. *Journal of Banking & Finance*, 17(1), 91-103.
- Johnson, A., & Lederer, A. (2005). The effect of communication frequency and channel richness on the convergence between chief executive and chief information officers. *Journal of Management Information Systems*, 22(2), 227-252.
- Johnson, A., & Lederer, A. (2010). CEO/CIO Mutual understanding, strategic alignment, and the contribution of IS to the organization. *Information & Management*, 47(3), 138-149.
- Jöreskog, K., & Sörbom, D. (1982). Recent developments in structural equation modeling. *Journal of Marketing Research*, 19(4), 404-416.
- Jöreskog, K., & Sörbom, D. (1996). *LISREL 8: User's Reference Guide*. Chicago: Scientific Software International.
- Jr, V., Cavazotte, F., & Valente, D. (2009). Strategic alignment and its antecedents: A critical analysis of constructs and relations in the international and brazilian literature. *Journal of Global Information Technology Management*, 12(2), 33-60.
- Judge, T., & Ferris, G. (1993). Social context of performance evaluation decisions. *Academy of Management Journal*, 36(1), 80-105.
- Kanellis, P., Lycett, M., & Paul, R. (1999). Evaluating business information systems fit: From concept to practical application. *European Journal of Information Systems*, 8(1), 65-76.
- Kanter, R. (1990). Change is everyone's job: Managing the extended enterprise in a globally connected world. *Organizational Dynamics*, 28(1), 7-23.

- Karahanna, E., & Straub, D. (1999). The psychological origins of perceived usefulness and perceived ease-of-use. *Information & Management*, 35, 237-250.
- Kearns, G., & Lederer, A. (2000). The effect of strategic alignment on the use of IS-based resources for competitive advantage. *The Journal of Strategic Information Systems*, 9(4), 265-293.
- Kearns, G. S., & Lederer, A. L. (2001). Strategic IT-Alignment: A model for competitive advantage. *Proceedings of the 22nd ICIS*, 1-12, Barcelona.
- Kearns, G., & Lederer, A. (2003). A resource-based view of strategic IT alignment: How knowledge sharing creates competitive advantage. *Decision Sciences*, 34(1), 1-29.
- Keen, P. G. (1991). Redesigning the organization through information technology. *Planning Review*, 19(3), 4-9.
- Kefi, H., & Kalika, M. (2005). Survey of strategic alignment impacts on organizational performance in international European companies. *Proceedings of the 38th Hawaii International Conference on Systems Sciences*.
- Kerlinger, F. (1973). *Multiple Regression in Behavioral Research*, New York, London: Holt, Rinehart and Winston Inc.
- King, A. (2007). Disentangling interfirm and intrafirm causal ambiguity: A conceptual model of causal ambiguity and sustainable competitive advantage. *Academy of Management Review*, 32(1), 156.
- King, W. (1998). How effective is your information systems planning. *Long Range Planning*, 21(5), 103-112.
- Kline, R. (1998). *Principles and Practice of Structural Equation Modeling* (1st ed.). New York.
- Kline, R. (2005). *Principles and Practice of Structural Equation Modeling* (2nd ed.). New York: The Guilford Press.
- Koch, T. (1995). Interpretive Approaches in Nursing Research: The influence of hussel and heidegger. *Journal of Advanced Nursing*, 21, 827-836.
- Koch, T., & Harrington, A. (1998). Reconceptualizing rigour: The case for reflexivity. *Journal of Advance Nursing*, 28(4), 882-890.
- Krejcie, R., & Morgan, D. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30, 607-610.
- Labovitz, G., & Rosansky, V. (1997). *The Power of Alignment*, John Wiley and Sons.
- Lederer, A., & Mendelow, A. (1989). Co-ordination of information systems plans with business plans. *Journal of Management Information Systems*, 6(2), 5-19.

- Lind, M., & Zmud, R. (1991). The influence of a convergence in understanding between technology providers and users on information technology innovativeness. *Organization Science*, 2(2), 195-217.
- Loehlin, J. (1992). *Latent variable models: An Introduction to Factor, Path, and Structural Analysis*: Lawrence Erlbaum Associates Hillsdale, NJ.
- Luftman, J., Lewis, P. R., & Oldach, S. H. (1993). Transforming the enterprise: The alignment of business and information technology strategies. *IBM Systems Journal*, 32, 198-221.
- Luftman, J., Papp, R., & Brier, T. (1995, August 2-5). The strategic alignment model: Assessment and validation. *Proceedings of the Information Technology Management Group of the Association of Management (AoM) 13th Annual International Conference*, 57-66, Vancouver, British Columbia: Canada.
- Luftman, J., & Brier, T. (1999). Achieving and sustaining business-IT alignment. *California Management Review*, 42(1), 109-122.
- Luftman, J., Papp, R., & Brier, T. (1999). Enablers and inhibitors of business-IT alignment. *Communications of the Association for Information Systems*, 1(11), 1-32.
- Luftman, J. (2000). Assessing business-IT alignment maturity. *Communication of AIS*, 4(14).
- Luftman, J. (2003). Measure your business-IT alignment. *Optimize: Business Execution for CIOs Magazine*, 26.
- Luftman, J., Bullen, C., Liao, D., Nash, E., & Neumann, C. (2004). *Managing the Information Technology Resource*. Pearson Education.
- Luftman, J. (2005). Key issues for IT executives 2004. *MIS Quarterly Executive*, 4(2), 269-285.
- Luftman, J., Kempaiah, R., & Nash, E. (2006). Key Issues for IT Executives 2005. *MIS Quarterly Executive*, 5(2), 81-101.
- MacMillan, I. (1983). Preemptive strategies. *Journal of Business Strategy*, 4(2), 16-26.
- MacDonald, H. (1991). The strategic alignment process. In S. Morton & S. Michael (Eds.), *The Corporation of the 1990s: Information Technology and Organizational Transformation*, 310-322, London: Oxford Press.
- Magal, S., Carr, H., & Watson, H. (1988). Critical success factors for information center managers. *MIS Quarterly*, 12(3), 412-425.

- Masa'deh, R., & Kuk, G. (2009, August 7-11). Antecedents and intermediaries between strategic alignment and firm performance. *Proceedings of the 2009 Conference of the Academy of Management Annual Meeting(AOM)*, Illinois, Chicago, U.S.A.
- McDaniel, C., & Gates, R. (1999). *Contemporary Marketing Research* (4th ed.). London: West Publishing.
- McDonald, R. & Ho, M. (2002). Principles and practice in reporting structure equation analyses .psychological Methods, 7(11),64-82.
- Michelli, J. A. (2006). *The Starbucks Experience*. New York: McGraw-Hill.
- Miles, R., & Snow, C. (1978). *Organizational Strategy, Structure, and Process*. New York: McGraw-Hill.
- Miller, D. (1981). Toward a new contingency approach: The search for organizational gestalts. *Journal of Management Studies*, 18(1), 1-26.
- Miller, J. (1993). Measuring and aligning information systems with the organization. *Information & Management*, 25(4), 217-228.
- Morton, M. S. (1991). *The Corporation of the 1990s: Information technology and organizational transformation*. New York: Oxford University Press.
- Nelson, K., & Coopriider, J. (1996). The contribution of shared knowledge to IS group performance. *MIS Quarterly*, 20(4), 409-432.
- Newkirk, H., & Lederer, A. (2006). The effectiveness of strategic information systems planning under environmental uncertainty. *Information & Management*, 43, 481-501.
- Nunnally, J. (1978). *Psychometric Methods*. NY: McGraw-Hill.
- Oana, V. (2010).Strategic alignment of ERP implementation stages: An empirical investigation. *Information & Management*, 47(3), 158-166.
- Pallant, J. (2001). *SPSS Survival Manual: A Step By Step Guide To Data Analysis Using SPSS for Windows* (1st ed.). Australia: Allen & Unwin.
- Pallant, J. (2005). *SPSS Survival Manual: A Step Guide to Data Analysis Using SPSS version 12*. Chicago, Illinois: Open University Press.
- Palmer, J., & Markus, M. (2000). The performance impacts of quick response and strategic alignment in specialty retailing. *Information Systems Research*, 11(3), 241-259.

- Papp, R. (1995). *Determinants of strategically aligned organizations: A multi-industry, multi-perspective analysis*. Dissertation, Stevens Institute of Technology, Hoboken, NJ.
- Papp, R. (2001). Introduction to strategic alignment. In R. Papp (Ed.), *Strategic Information Technology: Opportunities for Competitive Advantage*, 1-24, Hershey, PA: Idea Group.
- Parahoo, K. (1997). *Nursing research: Principles, process, and issues*, New York, NY: Palgrave Publications.
- Parker, M., Benson, R., & Trainor, H. (1988). *Information Economics: Linking Business Performance to Information Technology*. Prentice Hall Englewood Cliffs, NJ.
- Passemard, D., & Kleiner, B. (2000). Competitive advantage in global industries. *Management Research News*, 23(7/8), 111-117.
- Peak, D., Guynes, C., & Kroon, V. (2005). Information technology alignment planning: A case study. *Information & Management*, 42(5), 635-649.
- Pearlman, E. (2004). Welcome to the Crossroads. *CIO Insight*, 1(45).
- Peppard, J., & Ward, J. (2004). Beyond strategic information systems: Towards and IS capability. *Journal of Strategic Information Systems*, 13, 167-194.
- Pierce, A. C. (2002). *The effect of business and information technology strategic alignment on information technology investment returns and corporate performance*. Unpublished Doctoral Dissertation, Nova Southeastern University. Retrieved May 15, 2010, from the UMI ProQuest Digital Dissertations database.
- Pitt, L., Watson, R., & Kavan, C. (1995). Service quality: A measure of information systems effectiveness. *MIS Quarterly*, 19(2), 173-187.
- Poole, K., & Jones, A. (1996). A re-examination of the experimental design for nursing research. *Journal of Advanced Nursing*, 24(1), 108-114.
- Porter, M. (1980). Industry structure and competitive strategy: Keys to profitability. *Financial Analysts Journal*, 36(4), 30-41.
- Porter, M. E. (1985). *Competitive advantage: Creating and sustaining superior performance*. New York: The Free Press.
- Porter, M., & Millar, V. (1985). How information gives you competitive advantage. *Harvard Business Review*, 63(4), 149-160.
- Porter, M. (1991). Towards a dynamic theory of strategy. *Strategic Management Journal*, 12(S2), 95-117.

- Porter, M. (1996). From competitive advantage to corporate strategy. *Managing the Multibusiness Company: Strategic Issues for Diversified Groups*, 285.
- Porter, M. (1998). *Competitive advantage: creating and sustaining superior performance: With a new introduction*: Free Pr.
- Porter, M., & Takeuchi, H. (2000). *Can Japan Compete*. Collier Macmillan publishers.
- Powell, P. (1992). Information technology and business strategy: A synthesis of the case for reverse causality. *Proceedings of the 13th International Conference on Information Systems*, pp. 71-80, Texas: USA, December 13-16.
- Prahalad, C. K., & Hamel, G. (1990). The core competence of the corporation. *Harvard Business Review*, 68(3), 79-91.
- Pyburn, P. (1983). Linking the MIS plan with corporate strategy: An exploratory study. *MIS Quarterly*, 7 (2), 1-14.
- Rai, A., Lang, S., & Welker, R. (2002). Assessing the validity of IS success models: An empirical test and theoretical analysis. *Information systems research*, 13(1), 50-69.
- Raymond, L., & Croteau, A. (2009). Manufacturing strategy and business strategy in medium-sized enterprises: Performance effects of strategic alignment. *IEEE Transactions on Engineering Management*, 56(2), 192-202.
- Raymond, L. (2005). Operations management and advanced manufacturing technologies in SMEs: A contingency approach. *Journal of Manufacturing Technology Management*, 16(8), 936-955.
- Reich, B., & Benbasat, I. (1990). An empirical investigation of factors influencing the success of customer-oriented Strategic systems. *Information Systems Research*, 1(3), 325-347.
- Reich, B., & Benbasat, I. (1996). Measuring the linkage between business and information technology objectives. *MIS Quarterly*, 20(1), 55-81.
- Reich, B., Chan, Y., & Bassellier, G. (1997). *Investigating IT Competence in Business Managers*, SIM Workshop, Atlanta.
- Reich, B., & Benbasat, I. (2000). Factors that influence the social dimensions of alignment between business and information technology objectives. *MIS Quarterly*, 24(1), 81-113.
- Robinson, J., Shaver, P., & Wrightsman, L. (1991). *Measures of Personality and Social Psychological Attitudes*. Academic Pr.
- Rockart, J., Earl, M., & Ross, J. (1996). Eight imperatives for the new IT organization. *Sloan Management Review*, 38(1), 43-55.

- Sabherwal, R., & Kirs, P. (1994). The alignment between organizational critical success factors and information technology capability in academic institutions. *Decision Sciences*, 25(2), 301-330.
- Sabherwal, R., & Chan, Y. (2001). Alignment between business and IS strategies: A study of prospectors, analyzers, and defenders. *Information Systems Research*, 12(1), 11-33.
- Sabherwal, R., Hirschheim, R., & Goles, T. (2001). The dynamics of alignment: Insights from a punctuated equilibrium model. *Organization Science*, 12(2), 179-197.
- Sage, A. P., (2002). *Information Technology*. In AccessScience@McGraw-Hill, <http://www.accessscience.com>, DOI 10.1036/1097-8542.757582; last modified: March 1, 2002 – Last accessed 2009-03-14.
- Schwab, D. (1980). Construct validity in organizational behavior. *Research in Organizational Behavior*, 2(1), 3-43.
- Segars, A., & Grover, V. (1993). Re-examining perceived ease of use and usefulness: A confirmatory factor analysis. *MIS Quarterly*, 17(4), 517-525.
- Segars, A., & Grover, V. (1999). Profiles of strategic information systems planning. *Information Systems Research*, 10(3), 199-232.
- Sekaran, U. (2000a). *Research Methods For Business: A Skill – Building Approach*. NYC: John Wiley & Sons, Inc.
- Sekaran, U. (2000b). *Research Methods for Business*. New York: Hermitage Publishing Services.
- Sekaran, U. (2003). *Research Methods for Business: A Skill-Building Approach* (4th ed.). John Wiley and Sons.
- Silvius, A. (2009). Business and IT Alignment: What we know and what we don't know. *International Conference on Information Management and Engineering*, p558-563.
- Sledgianowski, D., & Luftman, J. (2005). IT-business strategic alignment maturity: A case study. *Journal of Cases on Information Technology*, 7(2), 102-120.
- Sledgianowski, D., Luftman, J., & Reilly, R. (2006). Development and validation of an instrument to measure maturity of IT business strategic alignment mechanisms. *Information Resources Management Journal*, 19(3), 18-33.
- Smircich, L. (1983). Concepts of culture and organizational analysis. *Administrative Science Quarterly*, 28(3), 339-358.
- Spector, P. (1992). *Summated Rating Scale Construction: An Introduction*. Newbury Park CA: Sage.

- Stevens, J. (1996). *Applied Multivariate Statistics for the Social Sciences*. Mahwah, NJ, Lawrence Erlbaum.
- Strassmann, P. (2003). A line an included in, and responds to Nicholas Carr Article in Harvard Business Review: IT Doesn't Matter. *Letter to the Editor: Harvard Business Review*, May.
- Strauss, A., & Corbin, J. (1990). *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*. Sage publications: Newbury Park, CA.
- Streubert, H., Speziale, H., & Carpenter, D. (1999). *Qualitative Research in Nursing: Advancing the Humanistic Imperative*: Lippincott Williams & Wilkins.
- Stringer, E. (2004). *Action Research in Education*. New Jersey: Pearson.
- Synnott, W. (1987). *The Information Weapon: Winning Customers and Markets with Technology*. John Wiley & Sons Inc.
- Szeto, E. (2000). Innovation capacity: working towards a mechanism for improving innovation within an inter-organizational network. *The TQM Magazine*, 12(2), 149-157.
- Tallon, P., Kraemer, K., & Gurbaxani, V. (2000). Executives' perceptions of the business value of information technology: A process-oriented approach. *Journal of Management Information Systems*, 16(4), 145-173.
- Tallon, P., & Kramer, K. (2003). *Investigating the Relationship between Strategic Alignment and Business Value: The Discovery of A Paradox. Creating Business Value with Information Technology: Challenges and Solutions*. Idea Publishing Group.
- Tavakolian, H. (1989). Linking the information technology structure with organizational competitive strategy: A survey. *MIS Quarterly*, 13, 309-317.
- Teo, T., & King, W. (1996). Assessing the impact of integration business planning and information systems planning. *Information & Management*, 30(6), 309-321.
- Teo, T., & Ang, J. (1999). Critical success factors in the alignment of IS plans with business plans. *International Journal of Information Management*, 19(2), 173-185.
- Van Dyke, T., Kappelman, L., & Prybutok, V. (1997). Measuring information systems service quality: Concerns on the use of the SERVQUAL questionnaire. *MIS Quarterly*, 21(2), 195-208.
- Venkatraman, N. (1989). The concept of fit in strategy research: Toward verbal and statistical correspondence. *Academy of Management Review*, 14(3), 423-444.
- Venkatraman, N., & Prescott, J. (1990). Environment-strategy coalignment: An empirical test of its performance implications. *Strategic Management Journal*, 11(1), 1-23.

- Venkatraman, N., & Tanriverdi, H. (2004). Reflecting “Knowledge” in Strategy Research: Conceptual Issues and Methodological Challenges. *Research Methodology in Strategy and Management*, 1, 33–67.
- Vitale, M., Ives, B., & Beath, C. (1986). Linking information technology and corporate Strategy: An organizational view. *Proceedings of the 7th International on Information Systems*, 265-276, San Diego.
- Vogt, W. (1993). *Dictionary of Statistics and Methodology*. London: Sage Publication.
- Wang, E., & Tai, J. (2003). Factors affecting information systems planning effectiveness: Organizational contexts and planning systems dimensions. *Information & Management*, 40(4), 287-303.
- Ward, J., Griffiths, P., (1999). *Strategic Planning For Information Systems*. Wiley, New York.
- Watson, R., Kelly, G., Gilliers, R., & Brancheau, J. (1997). Key Issues in Information Systems Management: An International Perspective. *Journal of Management Information Systems*, 13,4, 91-115.
- Ward, J., & Peppard, J. (1999). ‘Mind the gap’: Diagnosing the relationship between the IT organization and the rest of the business. *Journal of Strategic Information Systems*, 8(1), 29-60.
- Ward, J., & Peppard, J. (1996). Reconciling the IT/business relationship: A troubled marriage in need of guidance. *Journal of Strategic Information Systems*, 5(1), 37-65.
- Ward, J., & Peppard, J. (2002). *Strategic Planning for Information Systems* (3rd ed.). John Willey & Sons.
- Weiss, J., Thorogood, A., & Clark, K. (2006) . Three IT-Business Alignment Profiles: Technical Resource, Business Enabler and Strategic Weapon. *Communications of the AIS*, 18 , 676-691.
- Wernerfelt, B. (1984). Consumers with differing reaction speeds, scale advantages, and industry structure. *European Economic Rev.*, 24, 257-270.
- Wernerfelt, B., & Montgomery, C. (1988). Tobin’s q and the importance of focus in firm performance. *American Economic Review*, 78, 246-251.
- Xia, W., & King, W. (2002). Determinants of organizational it infrastructure capabilities. Retrieved February 6, 2010, from http://misrc.umn.edu/workingpapers/fullpapers/2002/0210_030102.pdf