

**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
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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 busines 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:

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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)*.

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DEDICATION

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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.

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