EXPLORING THE PRACTICE OF ENTERPRISE ARCHITECTURE

IN UNIVERSITI UTARA MALAYSIA: A CASE STUDY

MOHAMED NASIR SIBSI

UNIVERSITI UTARA MALAYSIA

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fulfillment of the requirements for the degree
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By
Mohamed Nasir Sibsi

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ABSTRACT

Alignment between business and information technology (IT) remains on the top-ten lists of concerns. Enterprise architecture (EA) provides an approach and guidance for enabling better alignment. The purpose of EA is to more effectively align the strategies of enterprises with processes and resources (IT and business). The research problem addressed by this study was lack of alignment between business strategy and IT strategy, leading to increased costs and loss of competitive advantage. The objective of this study was to identify how EA practice in UUM, evaluate and finally recommendations for achievement of better business-IT alignment enabled by enterprise architecture. Thus, the study conducted several interview, questionnaire and survey. The data collected was analyzed based on four EA factors such as business, application, technical and technology architecture.
ACKNOWLEDGEMENTS

Praise and gratitude to Allah, the Almighty, for bestowing me with great strength, patience, and courage in completing this project.

This research is the final accomplishment in my MSc. ICT. It has been a long road for me. A road that traveled past many different levels of education. Every time I passed a degree I was one step closer to becoming a Master in my field. Now I have gathered all the knowledge necessary and shown with this research that I possess the skills needed to think about and create solutions for issues on the cutting edge between the business and IT.

First of all I would like to thank to my supportive and helpful supervisor Rafidah Bt Abd Razak for being supporting, assessing, guiding and discussion time out of her busy schedule to meet with me every weeks and for teaching me so much. As well as Assoc Prof. Dr. Wan Rozaini Sheik Osman for stepping in when necessary. With all truthfulness, without her, the project would not have been a complete one.

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Mohamed Nasir Sibsi
24th May, 2008
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LIST OF ABBREVIATIONS

ASIS  Academic Student Information System
CC    Computer Center
CLIMAS Clinic Management System
DBMS  Database Management System
DMZ   Demilitarized Zone
EA    Enterprise Architecture
EAF   Enterprise Architecture Framework
GAIS  Graduate Academic Information System
IFAS  Integrated Finance and Accounting System
IT    Information Technology
IS    Information System
ICT   Information and Communication Technology
ISLAN Integrated Sintok Local Area Network
IPS   Intelligent Prevention System
LINTAS Library Information System
MCQ   Multiple Choice Question
PERSIS Personnel Information System
PO    Payment and Order System
PRACTIS Practical Information System
ReCIS  Research and Consultation Information System
R&D   Research and Development
SBITA Strategic Business and IT Alignment
SAM   Strategy Alignment Model
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<td>SAIS</td>
<td>Student Academic Information System</td>
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<tr>
<td>SECURIS</td>
<td>Security Information System</td>
</tr>
<tr>
<td>SE&amp;DB</td>
<td>Software Engineering &amp; Database</td>
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<tr>
<td>SSL</td>
<td>Secure Socket Layer</td>
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<td>UTP</td>
<td>Unshielded Twisted Pair</td>
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<td>VLAN</td>
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CHAPTER 1

INTRODUCTION

1.1 Background

Enterprise Architecture (EA) relates to the mission, goals and strategies of the organization to the business activities and Information Technology (IT) to support them (Schekkerman, 2004). Enterprise Architecture is often defined by practitioners as the blueprints and defining policies and standardization linking the business to the business architecture, information architecture, applications architecture and technology architecture (O'Rourke, Fishman & Selkow, 2003).

Enterprise Architecture relates organizational mission, goals and objectives to work processes and to the technical or IT infrastructure required to execute those (Lise & Steven, 2006). The EA has many benefits as enhance information sharing, guide technology standards, reduce application development costs and complexities and improve service delivery and operational efficiency (Lise & Steven, 2006).

This study will get a better idea about the practice of EA in University Utara Malaysia (UUM). The study will describe a simplified, top-down approach of
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Wan Rozaini, S.O., & Hadiham (2005). *Exploring The Possibility Of Implementing Telecommuting At University Utara Malaysia*, Faculty of Information Technology University Utara Malaysia.

