

**EXPLORING THE PRACTICE OF ENTERPRISE ARCHITECTURE  
IN UNIVERSITI UTARA MALAYSIA: A CASE STUDY**

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**UNIVERSITI UTARA MALAYSIA  
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**EXPLORING THE PRACTICE OF ENTERPRISE ARCHITECTURE  
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fulfillment of the requirements for the degree

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By

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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.

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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

SAIS	Student Academic Information System
SECURIS	Security Information System
SE&DB	Software Engineering & Database
SSL	Secure Socket Layer
UTP	Unshielded Twisted Pair
UUM	University Utara Malaysia
VLAN	Virtual Local Area Network

# **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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