

**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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## **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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only

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