

**GRADUATE ENTREPRENEUR ANALYTICAL REPORTS  
(GEAR) USING DATA WAREHOUSE MODEL: A CASE STUDY  
AT CEDI, UUM.**

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**UNIVERSITI UTARA MALAYSIA**

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(GEAR) USING DATA WAREHOUSE MODEL: A CASE STUDY  
AT CEDI, UUM.**

A project submitted to Dean of Research and Postgraduate Studies Office in partial  
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By  
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## ABSTRACT

Business Intelligence (BI) system using Data Warehouse (DW) technology is one of the important strategic management approaches for decision making in the organizations today. BI combines architectures, tools, databases, analytical tools, and methodologies to enable interactive information focused on analytical reports. Analytical reports, which affect the long-term direction of the entire company, are typically made by top managers. These types of decisions are often complex and the outcomes uncertain, because available information is often limited. Managers at this level must often depend on past experiences and their instincts when making strategic decisions. DW is a technology enable to integrate and transform enterprise data for strategic decision making. The organization, which is, responsible to manage entrepreneur activities need an analytical report for strategic decision making. This paper is focused how to design and develop Graduate Entrepreneur Analytical Reports called GEAR by using a DW Model in Cooperative and Entrepreneur Development Institute (CEDI), Universiti Utara Malaysia (UUM) as a case study. This system has been tested through the system user feedback by using Computer System Usability Questionnaire (CSUQ), which measures user satisfaction and consumer usability.

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## LIST OF ABBREVIATIONS

<b>BI</b>	Business Intelligence
<b>CEDI</b>	Cooperative and Entrepreneurship Development Institute
<b>CSUQ</b>	Computer System Usability Questionnaire
<b>DM</b>	Dimensional Modeling
<b>DSS</b>	Decision Support Systems
<b>DW</b>	Data Warehouse
<b>ERD</b>	Entity Relationship Diagram
<b>ETL</b>	Extract, Transfer And Loading
<b>GEAR</b>	Graduate Entrepreneur Analytical Reports
<b>GMDR</b>	General Methodology for Design Research
<b>MAKMUM</b>	Majlis Keusahawanan Mahasiswa Universiti Malaysia
<b>OLAP</b>	On-Line Analytical Processing
<b>OLTP</b>	On-Line Transaction Processing
<b>ReCODS</b>	Requirement Centric Operational Data Store
<b>SBU</b>	Strategic Business Unit
<b>SQL</b>	Structured Query Language
<b>SSAS</b>	SQL Server Analysis Services
<b>SSIS</b>	SQL Server Integration Services
<b>SSRS</b>	SQL Server Reporting Services
<b>UML</b>	Unified Modeling Language
<b>UUM</b>	Universiti Utara Malaysia

## CHAPTER ONE

### INTRODUCTION

#### 1.0. Introduction

An entrepreneur is the person who has possession of a new venture, idea or enterprise. Entrepreneur is responsible for the inherent risks and the results by himself. The entrepreneur monitors and controls his business activities as a manager. The supporting of the entrepreneur has become to enhance an agenda in national policy for many countries. The Cooperative and Entrepreneur Development Institute (CEDI) at University Utara Malaysia (UUM) has an own vision to become the leader academic and research in the field of entrepreneurship. CEDI is the original name of a business and entrepreneurship development institute which handled entrepreneurship activities in UUM.

Business Intelligence (BI), which is a business management term, it is a set of methodologies, architectures, processes and technologies used to explain the technology. These technologies collect enough amounts of right data in the given time. It analyzes the data into meaningful and useful information by traditional data warehousing technologies (Lida et al., 2007). The main function of BI technology is the analytical report, which helps the management to make the right decisions. Figure 1.1 presents a typical layered view of architecture for business intelligence (Liya et al., 2007).

BI component, called Data Warehouse (DW) is a database designed to support decision making (Chau et al., 2003; Seungjae et al., 1998). The DW takes data from operational applications then edit and finally gather them to provide

The contents of  
the thesis is for  
internal user  
only

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