

UNIVERSITI TEKNOLOGI MARA

**BUSINESS INTELLIGENCE MODEL
FOR TRADE APPLICATIONS
SYSTEM AT MINISTRY OF
INFORMATION TRADE AND
INDUSTRY (MITI)**

CHE ASLINALIZA BT CHE AHMED

IT Project submitted in partial fulfillment
of the requirements for the degree of
Master of Science in Information Technology

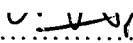
Faculty of Computer and Mathematical Sciences

July 2015

AUTHOR'S DECLARATION

I declare that the work in this IT Project was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as reference work. This IT Project has not been submitted to any other academic institution on non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

Name of Student : Che Aslinaliza bt Che Ahmed
Student I.D. No. : 2013252566
Programme : Master of Science in Information Technology
Faculty : Computer and Mathematical Sciences
IT Project Title : Business Intelligence Model for Trade Applications
System at Ministry of Information Trade and Industry
(MITI)
Signature of Student : 
Date : July 2015

ABSTRACT

Large and small organizations create gigantic volume of data on every aspect of daily activity. However majority of these data are difficult to access because it is subdivided in a numerous computer systems which spread out all over the organizational. MITI's core business is international trade and industrial development. All MITI core business already computerized system in two main categories which are Trade Applications System (TAS) and Industry Applications System (IAS). MITI generate volume of data from TAS and IAS. MITI also gets raw data from Royal Malaysia Customs Department (JKDM) and also Department of Statistics (DOS). Data is everywhere in individual databases of the applications it will cause information glut syndrome situation. In order for MITI to do a comprehensive analysis, all this source of data need to be integrate and manage properly. Business Intelligence Systems combine operational data with analytical tools to present complex and competitive information to managers and decision makers. This study will focus on data from TAS and raw data from JKDM. The objective of this study is to propose a BI Model for TAS. This BI model is significant to practitioner as it can be a guideline and preliminary study for MITI in developing a Business Intelligence System. This study also contributes towards new knowledge through the development of the MITI BI model. MITI BI model are derived from real insight of the data and system capabilities thus, it mirrors the reality of the organization. This study is performed by using qualitative methodology. Case study is being used to explore in-depth about the process and activity involve in managing data for TAS through interviews of its IT and Business personnel. This study used Data Life Cycle Model by Turban and Volonino for data collection and data analysis lens. The findings from current practice of data analyzing for TAS was able to identify the type of data which are AP data , COO data and external data from JKDM. These three (3) types of data are the working domain in order to execute Business Intelligence System for TAS. The proposed solution for MITI's BI model is a BI portal as a centralized source of analyzing and reporting tool. It is advisable for web-based since user can access the data anytime and anywhere. For future research, researcher is advisable to include the process of data analyzing for IAS in order to cover the whole MITI core business.

ACKNOWLEDGEMENT

First and foremost, the deepest gratitude of all shall be bestowed to Allah the Almighty and The Merciful for all the insight which He gave to us that lead to the completion of this research. Without His blessings and consent, I might not have enough courage and determination to complete this research. All my thanks and appreciation will be lay upon Him.

My deepest gratitude is extended to my supervisor Associate Professor Dr Haryani bt Haron, for all assistance, advice, guidance, encouragement, new ideas and invaluable support given for a better quality in my research. Thank you for being such a great mentor.

Special thanks to all staff of Ministry of International Trade and Industry (MITI), all the lecturers, friends also colleagues of Master Science in Information Technology for their support and encouragement, who shared ideas, cooperation and let me be as one of your friends.

To my beloved husband, Zulkifley Ismail and my loving kids, Nabil, Izzah and Naufal, parents and families, my special thanks for being patient, understanding and continuous support throughout the semesters. Without their personal sacrifices and being a constant source for encouragement, especially in the final stages, this thesis would not have been possible.

Finally, taking this opportunity, I would like to extend my thanks to Jabatan Perkhidmatan Awam, Malaysia for the funding and give me a chance to undertake this unforgettable and interesting course in UiTM. Alhamdulillah.

Thank You.

TABLE OF CONTENTS

AUTHOR'S DECLARATION	ii
ABSTRACT	iii
ACKNOWLEDGEMENT	iv
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF ABBREVIATIONS	x

CHAPTER ONE: INTRODUCTION

1.1	RESEARCH BACKGROUND	1
1.2	PROBLEM STATEMENT	3
1.3	RESEARCH QUESTION	5
1.4	RESEARCH OBJECTIVE	5
1.5	SCOPE OF RESEARCH	5
1.6	RESEARCH SIGNIFICANCE	5
1.7	ORGANIZATION OF RESEARCH	6

CHAPTER TWO: LITERATURE REVIEW

2.1	INTRODUCTION	8
2.2	ORGANIZATION BACKGROUND	9
	2.2.1 Organizational Structure	9
	2.2.2 MITI Business Context	10
	2.2.3 Current Issues And Challenges	10
2.3	TRADE APPLICATION SYSTEM (TAS)	11
2.4	BUSINESS INTELLIGENCE DEFINITION	12
2.5	BENEFIT OF BUSINESS INTELLIGENCE	13
2.6	BUSINESS INTELLIGENCE ADOPTION	14
	2.6.1 BI in Various Industries	14
	2.6.2 BI Adoption in Malaysia	16
2.7	ISSUE AND CHALLENGES IN BUSINESS INTELLIGENCE	17