UNIVERSITI TEKNOLOGI MARA

AN INVESTIGATION OF THE UTILIZATION OF ERP SYSTEM: A CASE STUDY AT TRANSWATER SDN BHD (TW)

NURUL ASHIKIN BINTI IBRAHIM

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

January 2015

ABSTRACT

Organizations expend a great deal of time, effort and money on the implementation of enterprise resource planning (ERP) systems. They are considered the price of entry for organizations to do business. Yet the success rate of ERP Systems is poor. Information System (IS) literature suggests that one possible reason for this is the underutilization of these systems. Existing ERP literature is replete with research to improve ERP project implementation success; however, notably absent from these streams is the research that identifies how ERP systems are utilized by individuals or organizations. This IT Project empirically examined the utilization of ERP system in an organization, which is Transwater Sdn Bhd. In specific, there were three (3) objectives in this study as the following; to investigate the utilization level of ERP system in Transwater Sdn Bhd, to identify the factors that influence the ERP utilization, and to examine the relationship between the determined factors with the utilization of ERP system. A survey was conducted with 62 respondents within the company. The methods used to analyze data are reliability analysis, frequency distribution, descriptive statistic, bivariate regression and multiple regressions in order to achieve the objectives outlined. The findings showed that searching features were the most utilized features by users. Utilization level of ERP system was found under 'unacceptable' category. Lastly, result also showed that there was no significant relationship between Experiential Interventions (EI) factor with Utilization of ERP System (UOES). The remaining three (3) studied factors had significant relationship with the Utilization of ERP System.

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 project. All my thanks and appreciation will be lay upon Him.

My deepest gratitude is extended to Puan Jamaliah Taslim, for all assistance, advice, guidance, encouragement, new ideas and invaluable support given as my project supervisor. Thank you for being such a great mentor. I also would like to express my gratitude and sincere appreciation to Encik Mohamad Norzamani Sahroni for his invaluable knowledge, comment and recommendation on how to enhance my project.

Not forgetting very special thanks to all staff of Transwater Sdn Bhd (TW), especially to the ERP Project Team for providing the facilities, knowledge and assistance. Million thank you to all participants who take part in this study. Special thanks to all the lecturers, friends also colleagues of Master of Science (Information Technology) for their support and encouragement during the process of completing this research.

Finally, I would like to express my deepest gratitude to my beloved husband, Abdul Latif Surani and my two sons, Adib and Ammar, my Mama, Puan Siti Aminah Sulaiman, my Ibu and Ayah, Puan Muntamah Kasban and Encik Surani Sulaiman and all my family for all the support towards my success. Without their personal sacrifices and being a constant source for encouragement, especially in the final stage, this thesis would not have been possible. This thesis is also dedicated to the loving memory of my very dear late father for his vision and determination to educate me. I love you all. Alhamdulilah.

TABLE OF CONTENTS

		Page
AUTHOR'S DECLARATION		i
ABSTRACT		ii
ACKNOWLEDGEMENT		iii
TABLE OF CONTENTS		iv
LIST OF TABLES		viii
LIST OF FIGURES		x
CHAPTER ONE: INTRODUCTION		
1.1	Introduction	1
1.2	Background of Study	1
1.3	Problem Statement	4
1.4	Research Questions	4
1.5	Objectives of Study	4
1.6	Hypotheses of Study	5
1.7	Scope of Study	6
1.8	Significance of Study	7
1.9	Report Outline	7
CHAPTER TWO: LITERATURE REVIEW		
2.1	Introduction	9
2.2	Enterprise Resource Planning (ERP) System	9
2.3	Utilization	11
2.4	Intervention	14
	2.4.1 Training Interventions	14
	2.4.2 Experiential Interventions	16
2.5	Underutilization of System	17
2.6	Measuring the Utilization of Enterprise Application	18

2.7 Statistical Approach 19
2.7.1 Random Sampling 19
2.7.2 Sample Size 20
2.7.3 Reliability Analysis 20
2.7.4 Assessing Normality 21
2.7.5 Descriptive Statistic 21
2.7.6 Bivariate Regression Analysis 21
2.7.7 Multiple Regression Analysis 22
2.8 Chapter Summary 22

CHAPTER THREE: METHODOLOGY

3.1 Introduction 23
3.2 Research Methodology 23
3.3 Phases of Methodology 25
3.3.1 Phase 1 – Problem Identification and Planning 25
3.3.1.1 Conceptual Model 25
3.3.2 Phase 2 – Design Survey Instrument and Pilot Study 27
3.3.2.1 Questionnaire 27
3.3.2.2 Questionnaire Design 30
3.3.2.3 Validity 31
3.3.2.4 Sampling Process 31
3.3.2.5 Sample Size 32
3.3.2.6 Target Population 32
3.3.2.7 Pilot Study 32
3.3.2.8 Reliability Analysis 33
3.3.3 Phase 3 – Data Collection 34
3.3.4 Phase 4 – Findings and Analyses 35
3.3.4.1 Descriptive Statistic 36
3.3.4.2 Correlation Anayses 37
3.3.4.3 Multiple Regression Analysis 38
3.3.5 Phase 5 – Documentation 38
3.4 Summary 39