UNIVERSITI TEKNOLOGI MARA

ORGANIZATION READINESS OF SERVER VIRTUALIZATION AT JABATAN PENDAFTARAN NEGARA (JPN)

ROZIDAH BINTI ABDULLAH

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 2016

AUTHOR'S DECLARATION

I declare that the work in this report was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the result 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 other degree of 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	:	Rozidah Binti Abdullah
Student I.D. No	:	2013178955
Programme	:	Master of Science in Information Technology
Faculty	:	Computer and Mathematical Sciences
IT Project Title	:	Organization Readiness of Server Virtualization at
		Jabatan Pendaftan Negara (JPN)

Signature of Student : Date :

July 2016

ABSTRACT

The historical general trend in organizations is that each time a new application is added the information technology (IT) department is tasked with adding a new server. It is common to find several servers in one organization allocated to different tasks like mails, central repository for office files, customer database and many others. This is not only expensive but also consumes office space hence calling for increased physical security to protect the many increasing number of servers. Malaysia government agency has significantly shown interest in adopting virtualization technology. MAMPU had outlined strategic directions for the implementation of Public Sector ICT that focuses on efficiency, productivity and innovation for the purpose of optimizing service delivery to the citizens. MAMPU encourage agencies under its approach and the use of green technology in the implementation of ICT Open Source Software, Digital Innovation, Green Technology, Anchored People and Anchored Data. On the Basic Principles of Green Technology, MAMPU encourage agencies to use of green technology in the implementation of ICT. Henceforth, this study aims to identify the factors that contribute to organizational readiness for server virtualization in Jabatan Pendaftaran Negara (JPN). The Technological, Organizational and Environmental (TOE) framework is used in this study looks into three component- Technology Readiness, Organisation Readiness, and Environment Readiness. A questionaire was conducted with eighty two respondents in JPN. SPSS was used for data analysis. Results showed that hardware and software, infrastructure, people and vendor have relationship with server virtualization in organization readiness for JPN.Cost have no relationship with server virtualization.

ACKNOWLEDGEMENT

Alhamdulillah, in the name of Allah, the Almighty and the Merciful. First and foremost, the deepest gratitude of all shall be bestowed to Allah S.W.T. for His guidance and blessing. Without His blessing 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 Dr. Natrah Abdullah @ Dolah, for all assistance, advise, guidance, encouragement, ideas contribution, 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 examiner for his/her invaluable knowledge, comment and recommendation on how to improve my project.

Not forgetting, very special thanks to IT staff of Jabatan Pendaftaran Negara (JPN), especially Tuan Haji Zakaria bin Awi and Pn. Noor Adura binti Baharuddin for their assistance. Million thank you to all participants who take part in this study. Special thanks to all lecturer, friend and colleague of Master of Science in Information Technology for their support and encouragement during the process of completing this project.

Finally, I would like to express my deepest gratitude to my family for their support and understanding towards my success. Without their personal sacrifices and being constant source of encouragement, especially during final stage, this thesis would not have been possible.

To everyone whom directly or indirectly has helped me in this research, I thank you very much. Your effort and contribution has made this research dissertation possible.

Thank You.

TABLE OF CONTENTS

	Page
AUTHOR'S DECLARATION	i
ABSTRACT	ii
ACKNOWLEDGMENT	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	viii
LIST OF FIGURES	x
LIST OF ABBREVIATION/NOMENCLATURE	xii

CHAPTER ONE: INTRODUCTION

à

1.1	Research Background	1
1.2	Problem Statement	3
1.3	Research Questions	3
1.4	Research Objectives	3
1.5	Research Significance	4
1.6	Research Scope	5
1.7	Organization of Study	5
1.8	Expected Outcome	6
1.9	Summary	7

CHAPTER TWO: LITERATURE REVIEW

2.1	Server Virtualization			8
	2.1.1	Success	Factor of Server Virtualization	9
	2.1.2	efir of Server Virtualization	11	
		2.1.2.1	Cost Reduction	11
		2.1.2.2	Sustainable Environment	12
		2.1.2.3	High Availability	12
		2.1.2.4	Disaster Recovery	12
		2.1.2.5	Floor Space	13