## UNIVERSITI TEKNOLOGI MARA

# STRATEGIES FOR MANAGING RISK IN IT OUTSOURCING: CASE STUDY AT PUBLIC SECTORS IN MALAYSIA

# NOR SHATILAH BT SHAMSUDIN

IT Report submitted in partial fulfillment of the requirements for the degree of

Master of Science (Information Technology)

Faculty of Computer and Mathematical Science

**July 2012** 

#### **ABSTRACT**

Outsourcing is the current trend of most companies in the world especially those in the ICT industry. IT outsourcing is a great alternative for organizations to help organize their business processes or functions. Even though outsourcing may bring a lot of advantages, but it also comes with risk. Therefore, outsourcers must be careful, wise and are advised to check the background and portfolio of the external parties or the vendors before choosing the right one. Thus, this study highlights the findings of a study carried out on IT outsourcing in Malaysian perspectives. The primary focus is on government agencies. Thus for this research, to understand the activities that take place at each phase, and make it clearly for this research, the researcher referred to conceptual framework of risk management in IT outsourcing. This framework is chosen because it is theoretically supported and empirically validated. This study also covers on the most common advantages of outsourcing and the risks that come from doing outsourcing. From the risks factors that have been identified, these risks will be prioritized based on the average of the risk exposure and the last step is constructing the case analysis for three selected government agencies. The case analysis listed out the risk mitigation strategies based on the risk rating category (High, Medium and Low). From the results and findings, the examples strategies in selecting the service provider, is to perform a comprehensive background review of all potential vendors and check their portfolio and references, also client must make sure the selected vendor must come with contingency planning as one of their services to client and it must clearly written in the contract. The contract should address vendor's responsibility for backup and record protection including data files and maintenance of disaster recovery plan and business continuity plan. It is to make sure the vendor will not give any excuses or run away if suddenly client's business operation failure or cannot be function. Although the results provide valuable insights into the risk management practices in the IT outsourcing process, the need for further work in this area is strongly recommended. It is suggested that future study can be conducted in private sectors. Also, the need for comprehensive framework on how to manage risk on specific in IT outsourcing phases can be conducted.

#### **ACKNOWLEDGEMENTS**

Alhamdulillah, thank you Allah. The success and the completion of this study would be impossible without the help and guidance from the Most Merciful, the Most Beneficent and the Most Compassionate, the Almighty Allah.

I would like to thank you my supervisor, Dr Syaripah Ruzaini Syed Aris for her help, patience, guidance and encouragement. Her advice and endless support is unforgettable.

To all managerial officers that have been involved in answering the questionnaire and interview, thank you! Without your help, it is impossible to complete this study. May Allah Bless you.

To all my friends and lecturers of Faculty of Computer and Mathematical Sciences, thank you for the support and prayers.

To my beloved father and my beloved mother, thank you for your endless support and prayers, and thank you for being so patient with me throughout my completion of the study. I love you! And last but not least to sisters, brothers, nieces and nephew, thank you! All of you have encouraged me throughout the study. May Allah Bless us.

## TABLE OF CONTENT

				Page	
STUDENT'S DECLARATION					
ABSTRACT					
ACKNOWLEDGEMENTS					
TABLE OF CONTENT					
LIST OF TABLES					
LIST OF FIGURES					
СН	APTER ONE:IN	TDODUCT	ION	1	
1.1			ION	1	
1.1	Research Backgro Problem Statemer			3	
1.3	Aim	of	Research	5	
1.3	Research Question		Research	5	
1.4	_			5	
1.6	Research Objectiv	of	Research		
	Scope				
1.7	Significance	of	Research		
	1.7.1 To Organiza			7	
1.0	1.7.2 To Other Re		TO S	7	
1.8	Overview	of	The	Γhesis 7	
СНА	APTER TWO: L	ITERATUI	RE REVIEW	9	
2.1	Introduction			9	
2.2	Concept of Outson	9			
2.3	Types of Outsourc	10			
2.4	Reason for Outso	Reason for Outsourcing			
2.5	Outsourcing Phas	Outsourcing Phases and Cycles			
2.6	Outsourcing Tren	d in Malaysia		15	
2.7	Risk	-		16	
2.8	Risk Managemen	t		17	

2.9	Risk in IT Outsourcing			
2.10	Risk Management in IT Outsourcing Project			
2.11	The Gap of Current IT Outsourcing Research			
2.12	Summary			
_	APTER THREE: RESEARCH APPROACH AND THODOLOGY	28		
3.1	Introduction	28		
3.2	Research Framework			
	3.2.1 Theoretical Study			
	3.2.2 Data Collection	32		
	3.2.3 Data Analysis	37		
	3.2.4 Report Writing	41		
3.3	Summary			
CHA	APTER FOUR: ANALYSIS AND DISCUSSION	43		
4.1	Introduction	43		
4.2	Organizational Background			
4.3	Analysis of Case Study			
	4.3.1 Case Study Agency A			
	4.3.1.1 Risk Category: Economical	51		
	4.3.1.2 Risk Category: Organizational	52		
	4.3.1.3 Risk Category: Legal	53		
	4.3.1.4 Risk Category: Technical	54		
	4.3.1.5 Risk Category: Operational	55		
	4.3.2 Case Study Agency B	55		
	4.3.2.1 Risk Category: Economical	56		
	4.3.2.2 Risk Category: Organizational	56		
	4.3.2.3 Risk Category: Legal	57		
	4.3.2.4 Risk Category: Technical	57		
	4.3.2.5 Risk Category: Operational	58		
	4.3.3 Case Study Agency C	58		