DETERMINANTS OF ADOPTING NON-TECHNOLOGICAL INNOVATION FOR SMEs IN MALAYSIA

NUR FADZLINA BINTI MD NAZRI

This research is submitted in partial fulfillment of the requirements for the award of Bachelor Degree of Technopreneurship With Honours

(Technopreneurship)

Faculty of Technology Management and Technopreneurship
Universiti Teknikal Malaysia Melaka

JUNE 2019

SUPERVISOR DECLARATION

"I/We hereby declared that I/we had read through this research study and in my/our opinion that this report is adequate in terms of scope and quality which fulfill the requirements for the award of Bachelor Degree of Technopreneurship With Honours (Technopreneurship)"

Name of Supervisor	: Assoc. Prof Dr. Norain Binti Ismail
Date	:
Signature	:
Name of Panel	: Pn. Mislina binti Atan
Date	

•

Signature

DETERMINANTS OF ADOPTING NON-TECHNOLOGICAL INNOVATION FOR SMEs IN MALAYSIA

NUR FADZLINA BINTI MD NAZRI

This research is submitted in partial fulfillment of the requirements for the award of Bachelor Degree of Technopreneurship With Honours

(Technopreneurship)

Faculty of Technology Management and Technopreneurship
Universiti Teknikal Malaysia Melaka

JUNE 2019

DECLARATION

"I here by declares that this report is a genuine results by my own work except certain explanations and passage where every part of it is cited with sources clearly stated in
References"

Signature	:
Name	: Nur Fadzlina Binti Md Nazri
Date	·

DEDICATION

I would like to dedicate this research to all my valuable treasures in life: To my loving parents, Md. Nazri Ali and Sharani Saad whose words of encouragement and push for tenancy ring in my ears. To my beloved siblings whose always give me supports in term of moral, motivation, and advice. It will not be easy for me to finish this report without their effort and sacrifices.

Thank you for always supporting me no matter what I do.

ACKNOWLEDGEMENT

In the name of Allah, the Most Gracious and Most Merciful

Alhamdulillah thanks to Almighty Allah for his kind blessing to allow me to complete this Projek Sarjana Muda (PSM) successfully. I would like to take this opportunity to express my gratitude to Universiti Teknikal Malaysia Melaka (UTeM) for providing the chance for the students to do this PSM. There is a lot of new and useful knowledge and experience I get throughout the time doing this PSM. Besides, I would like to express my heartiest gratitude to my respected supervisor, Dr. Norain Binti Ismail for providing knowledge and always guides me in completing this report. She has guides and assists me from the beginning until the end of the PSM process. Without her help, this project would not be completed so successfully. I am truly thankful for my supervisor as well as to my panel, Pn. Mislina Binti Atan who advised me due to my mistake I made during the presentation. Without her, my mistake would not be realized and most probably will cause serious consequences. Last but not least, I would like to conclude my thanks to my family and friends who have supported me throughout the process. I will forever grateful of all they have done in helping me develop my skills, moral support, physical support and as my inspiration and strength during stormy days. They were there whenever I faced difficulties in completing this project and willing to share their knowledge and information to me.

ABSTRACT

The aim of this study is to identify the factors that influence SMEs in Malaysia adopting non-technological innovation in their organization. This study is motivated by the fact that the adoption of non-technological innovation by SMEs is still very far behind the adoption by large companies. Therefore, in order to be able to survive in the new economic era, which is the transformation era, SMEs are forced to adopt this non-technological innovation as significant approach. In addition, studies regarding non-technological innovation adoption by SMEs are rarely found. Therefore, the results of this study provide a timely understanding of non-technological innovation adoption by SMEs in Malaysia. This research use qualitative method regarding the reliability and deepest information needed by conducting the interview. The determinants are listed details in this paper including leadership skills, human resource management, customer relationship, financing decision and innovation culture. This research also come out with the guidelines for adopting this innovation in the organization.

Keywords: Small and Medium-sized Enterprise (SMEs), Printing Services Industry, Non-technological Innovation.

ABSTRAK

Tujuan kajian ini adalah untuk mengenal pasti faktor-faktor yang mempengaruhi PKS di Malaysia mengguna pakai inovasi bukan teknologi dalam organisasi mereka. Kajian ini didorong oleh kenyataan bahawa penggunaan inovasi bukan teknologi oleh PKS masih jauh di belakang penerapan oleh syarikat besar. Oleh itu, untuk dapat bertahan dalam era ekonomi baru, yang merupakan era transformasi, PKS terpaksa mengadaptasi inovasi bukan teknologi ini sebagai pendekatan yang penting. Di samping itu, kajian mengenai penggunaan inovasi bukan teknologi oleh PKS jarang dijumpai. Oleh itu, hasil kajian ini memberikan pemahaman yang tepat pada masanya penggunaan inovasi bukan teknologi oleh PKS di Malaysia. Penyelidikan ini menggunakan kaedah kualitatif mengenai kebolehpercayaan dan maklumat mendalam yang diperlukan dengan menjalankan temuduga. Penentu itu menyenaraikan butir-butir dalam makalah ini termasuk kemahiran kepimpinan, pengurusan sumber manusia, hubungan pelanggan, keputusan pembiayaan, dan budaya inovasi. Penyelidikan ini juga disertakan dengan garis panduan untuk mengadaptasi inovasi ini dalam organisasi.

Perusahaan Kecil dan Sederhana (PKS), Industri Perkhidmatan Percetakan, Inovasi Bukan Teknologi.

TABLE OF CONTENTS

CHAPTER	CONTENTS	PAGE
	SUPERVISOR DECLARATION	
	RESEARCH TOPIC	i
	DECLARATION	ii
	DEDICATION	iii
	ACKNOWLEDGEMENT	iv
	ABSTRACT	v
	ABSTRAK	vi
	TABLE OF CONTENTS	vii
	LIST OF TABLES	xii
	LIST OF FIGURE	xiii
	LIST OF ABBREVATION	xiv
	LIST OF APPENDICES	xv
CHAPTER 1	INTRODUCTION	
	1.1 Introduction	1
	1.2 Background of Research	2
	1.3 Problem Statement	4

	1.4	Researc	ch Questions	6
	1.5	Researc	ch Objectives	6
	1.6	Scope a	and Limitation of the Research	7
	1.7	Signific	cant of Research	8
	1.8	Summa	ary	9
CHAPTER 2	LITI	ERATUR	RE REVIEW	
	2.1	Introdu	ction	10
	2.2	Innovat	tion	11
	2.3	Techno	logical Innovation	12
		2.3.1	Product Innovation	12
		2.3.2	Process Innovation	13
	2.4	Non-tec	chnological Innovation	13
	2.5	SMEs i	n Malaysia	14
	2.6	Non-tec	chnological Innovation for SMEs in	15
		Malays	ia	
	2.7	Determ	inants of Adopting Non-technological	16
		Innovat	tion for SMEs in Malaysia	
		2.7.1	Leadership	16
		2.7.2	Resources	17
		2.7.3	Financial	18
		2.7.4	Employment	19
		2.7.5	Collaboration	19
		2.7.6	Communication	20
		2.7.7	Culture	21

	2.8	Theory	y and Model Related	21
		2.8.1	Organizational Innovation Theory	22
		2.8.2	Organizational Capacity	23
		2.8.3	Theoretical Framework	24
	2.9	Summ	ary	25
CHAPTER 3	RESI	EARCH	METHODOLOGY	
	3.1	Introdu	action	26
	3.2	Resear	ch Design	27
	3.3	Metho	dological Choice	28
		3.3.1	Qualitative Research Strategy	29
		3.3.2	Sampling	30
	3.4	Intervi	ew Approach	31
		3.4.1	Before Interview	32
		3.4.2	During Interview	33
		3.4.3	After Interview	33
	3.5	Data C	follection	34
		3.5.1	Primary Data	34
		3.5.2	Secondary Data	35
	3.6	Analys	sis Approach	35
	3.7	Data A	nalysis Measurement Tools	
		3.7.1	Reliability	35
		3.7.2	Validity	36
	3.8	Pilot T	est	36
	3.9	Time I	Horizon	37
	3.10	Location	on of Research	38
	3.11	Summa	ary	38

CHAPTER 4	FINDING	AND	ANAI	YSIS
	THUMIO			

4.1	Introduc	ction	39
4.2	Respond	dent Background	40
4.3	Underst	anding of Innovation	41
4.4	Underst	anding of Non-technological Innovation	42
4.5	The Det	terminants of Adopting Non-technological	46
	Innovat	tion among SMEs in Malaysia	
	4.5.1	Leadership Skills	46
	4.5.2	Financing Decision	50
	4.5.3	Customer Relationship	53
	4.5.4	Human Resource Management	55
	4.5.5	Innovation Culture	58
4.6	The Mo	st Influential Determinants of Adopting	61
	Non-tee	chnological Innovation for SMEs in	
	Malays	ia	
	4.6.1	Understand the influence of business	62
		performance	
	4.6.2	The strategy to improve business	63
		performance	
	4.6.3	Behavior of surrounding	64
4.7	Concept	tual Framework for Determinants of	65
	Adoptin	g Non-technological Innovation for SMEs	
	in Mala	ysia	
4.8	Recomm	nendation that could be proposed on a	66
	Guidelin	ne in Adopting Non-technological	
	Innovati	ion for SMEs in Malaysia	
	4.8.1 A	A Recommendation Ensuring the	66
	I	Efficiency Use of Non-technological	
	I	nnovation	
49	Summa	arv	71

CHAPTER 5	CONCLUSION AND RECOMMENDATION			
	5.1	Introd	uction	72
	5.2	Concl	usion of Research Objectives	73
		5.2.1	Determinants of Adopting Non-	73
			Technological Innovation among SMEs	
			in Malaysia	
		5.2.2	The Most Influential Determinants Of	74
			Adopting Non-Technological Innovation	
		5.2.3	Suggest Guideline in Adopting	75
			Non-technological Innovation for SMEs	
			in Malaysia	
	5.3	Contri	bution	76
	5.4	Recon	nmendation for Future Research	77
	5.5	Concl	usion	78
	REF	ERENC	CES	79
	APPENDICES			85

LIST OF TABLES

TABLE	TITLE	PAGE
Table 4.5.1	Leadership Skills Factors	47
Table 4.5.2	Financing Decision Factor	52
Table 4.5.3	Customer Relationship	53
Table 4.5.4	Human Resource Management	55
Table 4.5.5	Innovation Culture	60
Table 4.6	The Most Influential Determinants of Adopting	61
Table 4.0	Non-technological Innovation for SMEs in Malaysia	
Table 4.8.1	Respondent's Recommendation in Ensuring the	66
	The efficiency of Non-technological Innovation	

LIST OF FIGURES

FIGURE	TITLE	PAGE
Figure 2.8.1	The Organizational Innovation Theory	22
Figure 2.8.2	The Organisational Capacity	23
Figure 2.8.3	Theoretical Framework	24
Figure 3.4	The Stages of Getting Information via Interview	32
Figure 4.7	Conceptual framework for Determinants of Adopting	65
Figure 4.7	Non-technological Innovation for SMEs in Malaysia	03

LIST OF ABBREVATIONS

ABBREVATION MEANING

SMEs Small and Medium-sized Enterprise

GDP Gross Domestic Product

Corp Corporation

Organization for Economic Co-operation and **OECD**

Development

Research and Development R&D

LIST OF APPENDICES

APPENDIX	TITLE
APPENDIX 1	Gantt Chart Final Year Project 1 (PSM 1)
APPENDIX 2	Gantt Chart Final Year Project 2 (PSM 2)
APPENDIX 3	Interview Questions
APPENDIX 4	Transcriptions

CHAPTER 1

INTRODUCTION

Innovation is classified into technological innovation and non-technological innovation where product and process are technological innovation meanwhile marketing and organisational innovation are both the non-technological innovation. Technological innovation is believe to boost business performance by adopting new technology to be use in organization. Along with this, all type of business in Malaysia are called upon to make use this new concept of adopting technology tools in business including Small Medium Enterprises (SMEs) industries especially services industry. However, adopting technology innovation itself cannot maintain the performance of SMEs in Malaysia. This problem arise due to the lacking of skills and lacking of general knowledge about the internal business operation. There are four problem statement arise which are lacking of management skills, leadership skills, motivation and self-unconscious. Therefore, this research is being taken to figure out the determinant of adopting non-technological innovation among SMEs in Malaysia in order to balancing the adoption of innovation in the organization. Along with it, the researcher is having difficulties of getting the information and data during this research due to the limited budget and time consuming. The details will be cover in this chapter.

1.1 Background of Research

Malaysian Government agencies and trade associations frequently promote and support small business and manufacturers to make good use of technology, improve product development and increase sales. Some of them including Pusat Pembangunan Usahawan Malaysia (MEDEC, UiTM), Technology and Innovation (MOSTI), Majlis Amanah Rakyat (MARA), and etc. Business organization has adopted innovation in their organization in order to respond to the changing environment and the demand from the community effectively (De Vries et al., 2014). This is because innovation is needed by business organization in order to run their business for a long term as the innovation is known as a key driver to a better growth performance in business.

There are four main types of innovation which is process innovation, product innovation, marketing innovation and organisational innovation (OECD,2018). Product innovation is the introduction of a new good or service that is new or improved. Meanwhile, process innovation is the implementation of a new or improved production or delivery tools. Meanwhile, marketing innovation can be said as the implementation of a new marketing strategy such product design, packaging, pricing, and product promotion. Whereby organizational innovation involves the implementation of new organizational strategy such business practice, workplace organization or external relations. Therefore, innovation can be divided into technological innovation and non-technological innovation where process and product are technological innovation meanwhile marketing and organisational innovation are both the non-technological innovation.

Technological innovation consist of the activities that able to contribute to the development, research and design of new products, services or techniques, or to improve existing products, and generates new technological knowledge (Inna Sousa Paiva, 2015). Technological innovation is one of the total innovation discipline which focuses specifically on technology and how to encourage it successful in processes, and products.

Since the technological innovation is the main attraction in business, organization is having a hard time. For example, when the leader keep pushing on asking employee to contribute new innovative idea of product without guideline, the employee might come up with a good idea but the motivation of delivering the ideas into reality will decrease as time cross by due to the lack of understanding and motivation between leader and employee. Hence, the productivity of the employee also decrease along with business performance.

Innovation is more than a product or technology platform where the fact is that the innovations to the internal organizations and management that moves beyond product or technology innovation anyway (David Burkus,2016). Non-technological innovation is complement to technological innovation (Pereira, 2013) because the organization not only used it to develop and apply new technologies but also to adopt and reorganize the business management part as it affects the organization's management systems. Non-technological innovation is discovering the innovation in the area of the organizational and marketing innovation (Lurdes Simao,2015). Corresponding to this, non-technological innovation means the innovation of the management where there are studies that said the determinants of adopting innovation are not only innovative work behaviour, innovation climate, and participative leadership but also includes organizational structure and consumers' expectation which had not been conducting any research yet (M. Buang, 2016).

For this study, researcher is focusing on the determinants of adopting non-technological innovation among SMEs in Malaysia. SMEs or also known as Small Medium Enterprises are one of type business organization in Malaysia that can help people and countries in economy sector. Among the sector mentioned are sectors of manufacturing, agriculture, construction and others sector in small and medium enterprise forming.

1.2 Problem Statement

As the successful of non-technological innovation is one of the main factor to enhance business performance, SMEs started to look forward to adjust the organization management system. This is because proper organization system could help to boost the sales and productivity of business itself. However, the knowledge gain by SMEs about managerial system is confusing and it does not help SMEs to resolve any solutions to their problems.

For example, if the leader seldom changes the discussion strategy about the future of business, the employee have less motivation in doing their task and lost in their direction of task concerning to the uncertainty specific goal per time. Corresponding this matter, there are five common problems occurred in some of the business organization (Steven, 2015). They are, absence of clear direction, confusing team personalities, key competencies and behaviours failure, poor communication and feedback and lack of awareness. Therefore, SMEs will hardly achieve their goals and even can solve any issue when the organization itself are not well manage.

Moreover, researcher also found another five common mistakes most business makes in SMEs including individual culture, inappropriate leadership, no resolution team when there is crisis in the core business, no appreciation reward and no effective teamwork (Roshan, 2018). This could be related to the self-unconsciousness from leader and employee, whereby, if a crisis occurs in business organization, they will try to blame others especially the leader rather than trying to solve it together. Without a good tolerance and effective communication, they may deal with difficulties in achieving their goals in business (Zety et al.,2018). Therefore, it will create an unpleasant atmosphere in the internal business organization when all the worker does not interact with each other.

In addition, the problem arise when the leader feels too comfortable in comfort zone. They will be less alert for what happen to the surrounding and five mistakes leader often to forget which is they keep focusing on diversity and forget about inclusion, forget the human resource function, keep changing without evolving leadership, keep dismissing those that disagree and forget about listening, and keep thinking about themselves and take others for granted (Glenn, 2018). For example, leader tend to change the goal of short run performance and forget to give space for the employee to adapt with the current changes first. This will increase the unsatisfaction and decrease the motivational of the employee because they make the employee confuse and stress in order to catch the new information in order to help organization to perform well. Thus, the leader and employee will never deal with good understanding.

Following to that issue, lacking of motivation may cause discontentment towards the productivity in business performance. The lower productivity rate of SMEs in Malaysia represents crucial room for improvements and opportunities for growth (Chee, 2016). This is due to the unstrategic method of the management system in the the organization itself. For example, a customer service person is asked to do variety task in the organization such serve customer, marketing activities and accounting at the same time yet only been getting paid with the one major task salary and did not get any bonus or appreciation reward. Therefore, the organization tend to lose one good co-worker due to resignation and may not sustain the business performance in long run.

In reality perception, there are reasons behind SMEs success and fail in achieving business performance. They might know the theory of organizational management but they failed to adopt due to the lacking of guideline to adopt it and otherwise. Therefore, by looking at those problems mentioned above, the researcher wants to study the determinants of adopting non-technology innovation among SMEs in Malaysia.

1.3 Research Questions

The researcher should come out with the research questions as a guidelines to achieve research objective. The following are the research questions:

- 1. What is the determinants of adopting non-technological innovation for SMEs in Malaysia?
- 2. What is the most influential determinants of adopting non-technological innovation for SMEs in Malaysia?
- **3.** What suggestion could be proposed on a guideline in adopting non-technological innovation for SMEs in Malaysia?

1.4 Research Objectives

The main objective of this research is to find the determination of managing innovation in SMEs around Malaysia. The following are the research questions:

- To identify the determinants of adopting non-technological innovation for SMEs in Malaysia.
- 2. To study the most influential determinants of adopting non-technological innovation for SMEs in Malaysia.
- 3. To suggest guideline for adopting non-technological innovation for SMEs in Malaysia.

1.5 Scope and Limitation of the Research

The scope of this research is to identify the determinants of non-technological innovation adoption for SMEs in Malaysia. There are several context that affect non-technological innovation adoption such as management context, leadership context and cultural context. Furthermore, to achieve the objective of this research, the scope of the research is to study the most influential determinants of adopting non-technological innovation for SMEs. Besides, this research also is to provide guideline for adopting non-technological innovation among SMEs in Malaysia.

The study makes a exclusive contribution to the business literature by contextualizing the link between innovation and the performance of SMEs in Malaysia. However, there are a few limitations and situation that create research gap for other researchers to address in future studies. First, the study is focused on the printing service only because printing service is one of SMEs that use technology and services under the service sector that represent 89.2% of Malaysia's GDP (SMECorp, 2016). This research have limited location as it only be choose randomly in Malaysia. Moreover, the respondent is only five selected company that researcher randomly pick. This research is aiming the academy to appreciate differences across service sectors as well as location and knowledge performance they have.