THE FACTORS INFLUENCE RETAILERS' ACCEPTANCE TOWARDS THE ADOPTION OF INFORMATION TECHNOLOGY IN RETAIL SECTOR IN MALAYSIA.

CAROLYN LAI PEH NEE

Faculty of Technology Management and Technopreneurship

UNIVERSITI TEKNIKAL MALAYSIA MELAKA

SUPERVISOR'S APPROVAL

'I hereby declared that I had read through this thesis and in my opinion that this thesis is adequate in terms of scope and quality which fulfill the requirements for the award of Bachelor of Technology Management (Technology Innovation)

SIGNATURE	:
NAME OF SUPERVISOR	: DR. MOHAMMED HARIRI BIN BAKRI
DATE	:

SIGNATURE	:
NAME OF PANEL	: PN. MISLINA BINTI ATAN@MOHD SALLEH
DATE	•

THE FACTORS INFLUENCE RETAILERS' ACCEPTANCE TOWARDS THE ADOPTION OF INFORMATION TECHNOLOGY IN RETAIL SECTOR IN MALAYSIA.

DECLARATION OF ORIGINAL WORK

"I hereby declare that this project is the result of my own research except as cited in the references. This research project has not been any degree and is not concurrently submitted in candidature of any other degree."

Signature	:
Name	: CAROLYN LAI PEH NEE
Date	:

DEDICATION

I dedicated this research to my beloved family who nursing me with affections and love and their dedicated partnership for success in my life. This dissertation is also dedicated to my friends who has gave me a hand to complete this research paper. Last but not least, this dedication also goes to the people who has kindly and generously help me to finish this research. Thank you all from the bottom of my heart.

ACKNOWLEDGEMENT

I would like to express my highest appreciation to Dr. Mohammed Hariri Bin Bakri for his supervision along the duration of this research. The guidance and inspiration from Dr. Hariri has helped me a lot to complete this study. A deepest thanks also goes to Pn. Mislina Binti Atan@Mohd Salleh as my presentation panel and Dr. Chew Boon Cheong as the lecturer of Research Methodology subject for sharing their useful knowledge and motivation for me to finish this research.

A special thanks also goes to my course mates and friends for their cooperation, encouragement, useful suggestions and provide me the full support from the beginning till the end. Lastly, also thanks to my beloved family for the endless support to complete the research.

Thank you from the bottom of my heart.

ABSTRACT

There is a significant influence does by information technology on retail sector especially in urban areas in Malaysia. In order to boost sales and revenue, Malaysian retailers are implementing advanced IT solutions in their way to operate their business and transactional system. But the technological gap between the traditional retail sector and the modern technological business of retail sector has been occur due to the technology advancement in Malaysia. Many of companies in Malaysia has improve their information system to adapt for the Goods and Service Tax (GST) starts from April, 2015 to enhance their business operation and efficiency. There are still some factors that need to concern before the retailers acquire to purchase a new information technology to their organization. In the interest to know more details about this, this research will focus on the factors influence the retailers' acceptance towards the adoption of information technology in retail sector in Malaysia. The main objectives of this research to find out the factors of attitude towards the behaviour, subjective norm, perceived behavioral control, perceived usefulness and perceived ease of use to test the relationship between the retailers' acceptance towards the adoption of information technology in their retail business. All of the factors are retrieved from the Theory of Planned Behavior (TPB) and Technology Acceptance Model (TAM). This quantitative research has selected 384 of persons engaged in retail sector in Malaysia as the respondents to complete the research and data analysis was done by using SPSS. The result from this study indicates that in overall, respondent agreed that all of the independent variables (attitude towards the behavior, subjective norms, perceived behavioral control, perceived usefulness and perceived ease of use) are shown important factor that have significance influence to the retailers' acceptance towards the adoption of information technology in retail sector while the most significance influence factor is subjective norm.

ABSTRAK

Dalam usaha untuk meningkatkan jualan dan pendapatan, peruncit Malaysia sedang melaksanakan penyelesaian IT yang terkini dengan cara mereka menjalankan perniagaan mereka dan sistem urus niaga. Tetapi jurang teknologi antara sektor runcit tradisional dan perniagaan teknologi moden sektor runcit telah berlaku disebabkan oleh kemajuan teknologi di Malaysia. Banyak syarikat-syarikat di Malaysia mempunyai memperbaiki sistem maklumat mereka untuk menyesuaikan diri bagi Cukai Barangan dan Perkhidmatan (GST) bermula dari bulan April 2015 untuk meningkatkan operasi perniagaan dan kecekapan mereka. Masih terdapat beberapa faktor yang perlu kebimbangan sebelum peruncit memperoleh untuk membeli teknologi maklumat baru kepada organisasi mereka. Kepentingan untuk mengetahui lebih lanjut tentang perkara ini, kajian ini akan memberi tumpuan kepada faktor-faktor yang mempengaruhi penerimaan peruncit ke arah penggunaan teknologi maklumat dalam sektor peruncitan di Malaysia. Objektif utama kajian ini ialah untuk mengetahui faktor-faktor sikap terhadap tingkah laku, norma subjektif, kawalan tingkah laku dilihat, manfaat dan tahap kemudahan tanggapan digunakan untuk menguji hubungan antara penerimaan peruncit ke arah penggunaan teknologi maklumat dalam perniagaan runcit mereka. Semua faktorfaktor yang diambil dari Theory of Planned Behavior (TPB) dan Technology Acceptance Model(TAM). Kajian kuantitatif ini telah memilih 384 orang yang bekerja dalam sektor runcit di Malaysia sebagai responden untuk melengkapkan analisis penyelidikan dan data telah dilakukan dengan menggunakan SPSS. Hasil daripada kajian ini menunjukkan bahawa responden bersetuju bahawa semua pembolehubah bebas ditunjukkan faktor penting yang mempunyai kepentingan pengaruh kepada penerimaan peruncit ke arah penggunaan teknologi maklumat dalam sektor runcit manakala faktor yang paling mempengaruhi penerimaan peruncit adalah perkara subjektif.

TABLE OF CONTENT

CHAPTER	CONTENT	PAGES
	DECLARATION OF ORIGINAL WORK	ii
	DEDICATION	iii
	ACKNOWLEDGEMENT	iv
	ABSTRACT	V
	ABSTRAK	vi
	TABLE OF CONTENT	vii
	LIST OF TABLE	xi
	LIST OF FIGURES	xiii
	LIST OF ABBREVATION	xiv
	LIST OF APPENDIX	XV
CHAPTER 1	INTRODUCTION	
	1.1 Background of Study	1
	1.2 Problem Statement	3
	1.3 Research Questions	5
	1.4 Research Objectives	5
	1.5 Scope and Limitation	5
	1.5.1 Scope	5
	1.5.2 Limitation	6
	1.6 Significance of Study	6
	1.7 Contribution of Study	7
	1.8 Summary	7

CHAPTER 2 LITERATURE REVIEW

CHAPTER 3	RESEARCH METHODOLOGY	
	2.5 Summary	21
	2.4 Research Hypothesis	20
	2.3 Theoretical Framework	19
	2.10.12 Perceived Ease of Use	19
	2.10.11 Perceived Usefulness	18
	2.2.10 Perceived Behavioral Control	10
	2.2.9 Subjective Norm	16
	2.2.8 Attitude towards the behaviour	16
	2.2.7 Technology Acceptance Model	15
	2.2.6 Theory of Planned Behavior	14
	Sector in Malaysia	
	2.2.5 Information Technology in Retail	13
	Retail Sector	
	2.2.4 Information Technology in	11
	2.2.3 Retailers' Acceptance	10
	2.2.2 Retailer	9
	2.2.1 Retail	9
	2.2 Overview	8
	2.1 Introduction	8

3.1 Overview	22
3.2 Research Design	22
3.2.1 Explanatory Research	23
3.3 Methodological Choice	24
3.3.1 Quantitative Research	24

	3.4 Data Sources	25
	3.4.1 Primary Data	25
	3.5 Sampling Design	26
	3.5.1 Sample Size	26
	3.6 Location of the Research	28
	3.7 Research Strategy	28
	3.7.1 Survey Research	29
	3.7.2 Questionnaires	29
	3.7.3 Questionnaires Design	30
	3.7.4 Pilot Test	31
	3.8 Time Horizon	31
	3.9 Validity	32
	3.9.1 Construct Validity	32
	3.9.2 Internal Validity	32
	3.9.3 External Validity	33
	3.10 Reliability	33
	3.11 Data Analysis Tools	35
	3.11.1 Pearson Correlation Coefficient	35
	3.11.2 Multiple Regression Analysis	36
	3.11.3 Statistical Package for Social	37
	Sciences (SPSS)	
	3.12 Summary	37
CHAPTER 4	RESULT AND DATA ANALYSIS	39
	4.1 Introduction	39
	4.2 Pilot Test	39
	4.2.1 Reliability Test	40

	4.2.2 Validity Test	41
	4.3 Descriptive Analysis	42
	4.3.1 Demographic Profile	42
	4.3.1.1 Gender	44
	4.3.1.2 Age	45
	4.3.1.3 Level of Education	46
	4.3.1.4 Type of Retail Business	47
	4.3.1.5 Annual Sales Turnover	48
	4.3.1.6 Business Duration	49
	4.3.1.7 Type of IT used in Business	50
	4.3.2 Independent Variable Descriptive	51
	4.3.3 Descriptive Statistic	57
	4.4 Inferential Analysis	58
	4.4.1 Pearson Correlation Coefficient	58
	4.5 Multiple Regression Analysis	61
	4.6 Hypothesis Testing	65
	4.7 Summary	72
CHAPTER 5	CONCLUSION AND	73
	RECOMMENDATION	
	5.1 Introduction	73
	5.2 Summary of Findings	73
	5.3 Conclusion	76
	5.4 Limitation of Study	78
	5.5 Significance of Study	78
	5.6 Recommendation	79
	5.7 Suggestions for future study	80

REFERENCE	82
APPENDICES	87
Questionnaire	87
Gantt Chart PSM 1	94
Gantt Chart PSM 2	95

xii

LIST OF TABLES

TABLES	TITLE	PAGES
3.1	Performance of Distributive Trade Sector	26
3.2	Sample sizes for different sizes of population	27
	at a 95 per cent confidence level (assuming	
	data are collected from all cases in the	
	sample)	
3.3	Likert Scale	30
3.4	Cronbach's Alpha Coefficient Range	34
3.5	Rule of Thumb	35
4.1	Interpretation of reliability based on	40
4.2	Cronbach's Alpha for 30 respondents	41
4.3	Validity Test for 30 respondents	42
4.4	Demographic Profile for 384 respondents	57
4.5	Result of Pearson Correlation Coefficient	59
4.6	Strength of Pearson Correlation Coefficient	60
4.7	Model Summary of Multiple Regression	61
4.8	ANOVA of Multiple Regression	61
4.9	Coefficients of Multiple Regression	62
4.10	Hypothesis Testing Result	71

LIST OF FIGURES

FIGURES	TITLE	PAGES
2.1	Theory of Planned Behavior (TPB)	14
2.2	Technology Acceptance Model (TAM)	15
2.3	Theoretical Framework	19
4.1	Gender	44
4.2	Age	45
4.3	Level of Education	46
4.4	Type of Retail Business	47
4.5	Annual Sales Turnover	48
4.6	Business Duration	49
4.7	Type of IT used in Business	50
4.8	Independent Variable 1: Attitude towards	51
	the Behavior	
4.9	Independent Variable 2: Subjective Norm	52
4.10	Independent Variable 3: Perceived	53
	Behavioral Control	
4.11	Independent Variable 4: Perceived Ease of	54
	Use	
4.12	Independent Variable 5: Perceived	56
	Usefulness	

LIST OF ABBREVIATIONS

ABBREVIATION	TITLE	PAGES
UTeM	Universiti Teknikal Malaysia Melaka	
IT	Information Technology	2
GST	Goods and Service Tax	2
TPB	Theory of Planned Behavior	8
TAM	Technology Acceptance Model	8
POS	Point of Sales	11
RFID	Radio Frequency Identification	11
	Technology	
TRA	Theory of Reasoned Action	14
PU	Perceived Usefulness	16
PEOU	Perceived Ease of Use	16
SPSS	Statistical Package for Social Sciences	37

LIST OF APPENDIX

APPENDICES	TITLE	PAGES
A	Questionnaire	87
В	Gantt Chart PSM 1	94
С	Gantt Chart PSM 2	95

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Retail is the sale of products and services from individuals or businesses to the end-user while retailer acts as a supply chain in the part of an integrated system (Bishnoi 2014). The retail industry can be said that is the one industry which relies heavily on analyzing and using information to drive its day-to-day activities (Atherton, 2009). One of the most important external strategy factors and critical factor of success of a retail company are technical and technological development (Segetlija, 2006). It has become clear that the retail industry is in a period of extraordinary interruption and change by technologies nowadays (Deloitte, 2014).

According to Deloitte (2015), in "Global Powers of Retailing 2015 Embracing Innovation" mentions that consumers and retailers nowadays are more willing and quicker adopt to the latest technologies in more creative and innovative ways. The retail industry is continuing disrupted by new technologies and innovative rivalry. The expectation and demands of customers will continue to escalate that will cause the near future of the retail industry is about adaption and embracing change.

In "Retail Industry Development", Mansoory and Mehra (2010) note that traditionally business starts to drive the innovation and technology to improve business

concerns and face the rising of consumer demand for products variety and enhancement. As Khesraw and Mehra point out, although information system, technology, World Wide Web has assisted in business growth but it made more challenges and burdensome for retailers to function their business niche.

In India, the fastest growing markets in the world, Indian retail is starting to develop from the brick and mortar model to adopt technology for connection of consumers and advance customers experience. The researcher states that Indian organized retail sector is expected to gain a higher share in growing pie of the retail market since it consists of 8% in the entire retail industry which is may grow faster than traditional retail (Ponduri and V., 2014).

There is a significant influence does by information technology on retail property especially in urban areas in Malaysia (Najib Razali et al., 2014). In "IT in Retail: Competing Smartly With IT" from Retail Asia Online points out that local retailers are forced to chase the steps of competition of online retailers and the entry of international brand retailers by improving their information technology convenience for customers. In order to boost sales and revenue, Malaysian retailers are implementing advanced IT solutions in their way to operate their business and transactional system. Some of the retailers that embrace the use of Information Technology systems are the convenience store operators. Many of companies in Malaysia has improve their information system to adapt for the Goods and Service Tax (GST) starts from April, 2015 to enhance their business operation and efficiency (Retail Asia, 2014).

From above information we know that information technology plays a vital role in retail industry in Malaysia, but there are still some factors that need to concern before the retailers acquire to purchase a new information technology to their organization. In the interest to know more details about this, this research will focus on the factors influence the retailers' acceptance towards the adoption of information technology in retail sector in Malaysia.

1.2 Problem Statement

The retail sector in Malaysia has a low acceptance on adoption information technology in their business. From the point of view of Bishnoi (2014) states that information technology plays a role as the backbone of modern retailing due to the owner or manager of a traditional retailing is more easily to manage their business because of its size, scope and uncompetitive nature. Modern retail owned by large organizations will face a difficulty in management if they without a well-organized and reliable IT system (Bishnoi, 2014).

The problem is more significant after the Goods and Service Tax (GST) was started. On 25th of October 2013, the Prime Minister Datuk Seri Najib Razak, who also doubles up as finance minister announced that Goods and Service Tax (GST) will be introduced starts from 1st of April 2015 with a tax rate of 6% (Budget 2014: GST at 6% from april 2015 - nation | the Star Online, 2013). Besides of government regulation, retailers are continually thinking of whether to implement new technologies or not to gain a more competitive advantage while that investments in technologies do not always provide the expected returns (Renko and Druzijanic, 2014).

The introduction of GST affected all retail sub-sectors from retailers selling grocery, fashion and fashion accessories, electrical & electronics, foods and beverages and overseas travel since 1st April 2015 (Tan, 2015). In "Countdown to GST", ACCA (2014), states that many business owners and executives in Malaysia are just starting to understand the concept of Goods and Service Tax (GST) and many of them are being confused due to not really know what impact will bring by GST implementation to their business. In the view of point of Deloitte Touche Tohmatsu Tax Services managing director Yee Wing Peng mentions "a comprehensive system is a need to capture the input and output taxes while a lack of IT consultants and tax professionals will be a big challenge and rush to companies who involves in GST implementation," (ACCA, 2014).

Deloitte's Yee also reveals that "We have a challenge getting experienced people... you need people with experience, even for changing the software, and this is not readily available in Malaysia,' (ACCA, 2014).

In "Malaysian Digest", Teh (2015) reports that Chen, a sixty-five years old man who is a hardware store owner driven to suicide attempt over GST woes due to pressure and problems faced after trying to adapt of GST by using information technology such as computer for online transaction in Teluk Intan, Perak, Malaysia. From this case, we can know that many of senior citizens in Malaysia as the business owners still organize their business in a traditional way, they are having difficulty of lack of technological knowledge to adapt with the technology equipment such as computer and GST software in order to follow the Government Regulation (Ko, 2015)

In 2014, the biggest retail store in Malaysia, Mydin implemented a new systems of Citrix Xen Server and Citrix Xen App which are used to strengthen and systematize its business applications. Its information Technology Director, Malik Murad Ali, said that the new implemented system is perfect for their employees since they are not IT smart person. The system is easily understood, easy to use and requires minimal training for his employees (Retail Asia, 2014).

From all the research above, we can know that information technology has its own characteristics to influence people to accept or reject. The technological gap between traditional retail sector and the modern technological business of retail sector has some interesting factors influence retailers' acceptance to implement information technology in their business will be discussed.

1.3 Research Questions

- What are the relationship between the independent variables and the retailers' acceptance towards the adoption of information technology in retail sector in Malaysia?
- 2. What is the independent variable has the most significance relationship and the retailers' acceptance towards the adoption of information technology in retail sector in Malaysia.

1.4 Research Objectives

- 1. To analyze the relationship between the independent variables and the retailers' acceptance towards the adoption of information technology in retail sector in Malaysia.
- To examine the most significance relationship between the independent variable and the retailers' acceptance towards the adoption of information technology in retail sector in Malaysia.

1.5 Scope and Limitation

1.5.1 Scope

This study is mainly focuses on the factors influence retailers' acceptance towards the adoption of information technology in retail sector in Malaysia. In order to achieve the research objectives, researcher selected retailers in Malaysia as the target respondents. The study is also focus on the subject of information technology in retail sector. Malaysia as the focus area due to the high stream of people for easy data collection.

1.5.2 Limitation of the Study

This research was conducted to find out the factors influence retailers' acceptance towards the adoption of information technology in retail sector in Malaysia. There are a few limitation that have been met in this study. The first limitation of this study is researcher assumed that all respondents answered the questionnaires with cooperation and full of honesty. Second, researcher assumed that all the respondents have the enough knowledge to answer all the questions provided. Researcher assumed that all of the respondents have the sufficient experiences on handling the research topic to finish the questionnaires.

1.6 Significance of Study

At the time of this study, no published studies were found to examine the factors influence the factors influence retailers' acceptance towards the adoption of information technology in retail sector in Malaysia. This study can be contributed to the retailers who has interested to adopt new information technology in their business and also the result of this study will be used to improve the performance of retail industry. The finding outcomes could also provide the benefits to the systems creators in the world for them to understand the needs of retailers in Malaysia to implement the technological innovations in their business. Lastly, it also can contribute to the tax administration and policy development of the government for assessment the impact towards the retail sector about technological innovations adaption after the implementation of Goods and Service Tax (GST) among retailers.

1.7 Contribution of Study

The reason why the researcher conducted this study is due to the previous studies of information technology are mainly focus on the customers usage and only a few studies in Malaysia are target on retailers to conduct the acceptance of information technology. The theory used in this research are the combination of Theory of Planned Behavior (TPB) and Technology Acceptance Model (TAM) to study the relationship of each factors towards the retailers' acceptance of information technology in retail sector in Malaysia. The contribution of this study is to provide a more confirmation and expansion of the two model combination TPB and TAM that been used in this study would provide an experimental assessment on the retail sector in Malaysia which helps to test whether the theory is practicable in the retail sector in Malaysia and shows that how it can be applied in practice and make it works.

1.8 Summary

In this chapter, researcher has discussed about the background of the study and problem statement. Next, research questions and research objectives are also mentioned clearly. Besides that, scope and limitation that will face by this research are also stated above. Lastly, the significance of study pointed out the contribution of this research. The next chapter will discuss about the literature review of this research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter include the literature review of the keywords, theory used, theoretical framework and hypothesis of this research. First, the overview of this section include the definition of the keywords and the literature review of each factors influence retailers' acceptance towards the adoption of information technology in retail sector in Malaysia. Then, it followed by the theory that has been studied. Next, a theoretical framework present with the relationship of variables. Lastly, hypothesis between the variables is predicted.

2.2 Overview

The literature review of this research discussed about the retail, retailer, retailers' acceptance, information technology in retail sector and information technology in retail sector in Malaysia. The past studied of Theory of Planned Behavior (TPB) and Technology Acceptance Model (TAM) has been discussed in this chapter. The five variables that researcher applied in this study which are attitude towards the acceptance,