PERCEIVED TECHNOLOGY READINESS, ACCEPTANCE AND SATISFACTION ON SMK (SISTEM MAKLUMAT KASTAM / CUSTOMS INFORMATION SYSTEM) BY THE ROYAL MALAYSIAN CUSTOMS

BY

FUNG JUN IAN

KHOR ZI HUI

LAU HUEY YING

LEE CHEE CHUNG

LEW MEI JING

A research project submitted in partial fulfilment of the requirement for the degree of

BACHELOR OF BUSINESS ADMINISTRATION (HONS)

UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF BUSINESS AND FINANCE

DEPARTMENT OF BUSINESS

AUGUST 2017

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DECLARATION

We hereby declare that:

1) This undergraduate research project is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.

2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

3) Equal contribution has been made by each group member in completing the research project.

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Name of Student:	Student ID:	Signature:
1. FUNG JUN IAN	14ABB07421	_____
2. KHOR ZI HUI	14ABB07310	_____
3. LAU HUEY YING	14ABB07308	_____
4. LEE CHEE CHUNG	13ABB02795	_____
5. LEW MEI JING	14ABB07307	_____

Date: 18th August 2017

ACKNOWLEGDEMENT

In this research project, we could not successfully if without the help and support of several people. Each of them is playing an important roles in helping, encouraging and guiding us when doing our research project. Firstly, we would like to express our since appreciation to our research project supervisor, Dr. Ramesh Kumar. He provide us guidance, advice, care, assistance and encouragement throughout the process of completing this research project. We are very grateful to Dr. Ramesh Kumar for willing to share with us his knowledgeable information to guidance us finish our research project.

Last but not least, we would like to give a special thanks to our friends and group members for sharing their knowledge and provide the opinion in our research project. Furthermore, we are really thankful for their endless support and cooperation of each group member and our friends when we are needed them in times of difficulties.

Lastly, we would like to thanks to our parents and family members for their support and motivation when we are facing problem. We really appreciate them consistent support and encouragement to help us complete the research project.

TABLE OF CONTENTS

Page

Copyright Page ii

Declaration iii

Acknowledgement iv

Table of Contents v

List of Tables xi

List of Figures xii

List of Abbreviations xiii

List of Appendices xiv

Abstrak xv

Abstract xvi

CHAPTER 1 INTRODUCTION

1.0 Introduction 1

1.1 Research Background 1

1.2 Problem Statement 6

1.3 Research Objectives 8

1.3.1 General Objective 8

1.3.2 Specific Objectives 8

1.4 Research Question 9

1.5 Significance of the Study 10

1.6 Chapter Layout 11

1.7 Conclusion 13

CHAPTER 2 LITERATURE REVIEW

2.0 Introduction 14

2.1 Literature Review 14

2.1.1 User Satisfaction 14

2.1.2 Technology Acceptance Model (TAM) 16

2.1.2.1 Perceived Ease of Use 17

2.1.2.2 Perceived Usefulness 19

2.1.3 Technology Readiness Index (TRI) 20

2.1.3.1 Optimism 22

2.1.3.2 Innovativeness 25

2.1.3.3 Discomfort 27

2.1.3.4 Insecurity 28

2.2 Review of Theoretical Framework 29

2.2.1 Model 1 29

2.2.2 Model 2 31

2.2.3 Model 3 33

2.2.4 Model 4 35

2.3 Proposed Theoretical/ Conceptual Framework 37

2.4 Hypotheses Development 38

2.4.1 Optimism and Perceived ease of use 39

2.4.2 Innovativeness and Perceived ease of use 40

2.4.3 Discomfort and Perceived ease of use 40

2.4.4 Insecurity and Perceived ease of use 41

2.4.5 Perceived Ease of Use and User satisfaction 42

2.5 Conclusion 43

CHAPTER 3 RESEARCH METHODOLOGY

3.0 Introduction 44

3.1 Research Design 44

3.2 Data Collection Methods 45

3.2.1 Primary Data 45

3.2.2 Secondary Data 46

3.3 Sampling Design 46

3.3.1 Target Population 47

3.3.2 Sampling Frame and Sampling Location 47

3.3.3 Sampling Elements 47

3.3.4 Sampling Technique 48

3.3.5 Sample Size 48

3.4 Research Instrument 50

3.4.1 Questionnaire Design 50

3.4.2 Pilot Study 58

3.5 Constructs Measurement 59

3.5.1 Origin of Construct 60

3.5.2 Scale of Measurement 60

3.5.2.1 Nominal Scale 60

3.5.2.2 Ordinal Scale 61

3.5.2.3 Interval Scale 62

3.6 Data Processing 64

3.6.1 Data Checking 64

3.6.2 Data Editing 64

3.6.3 Data Coding 65

3.6.4 Data Transcribing 67

3.7 Data Analysis 67

3.7.1 Descriptive Analysis 67

3.7.2 Scale Measurement 68

3.7.2.1 Reliability Test 68

3.8 Conclusion 68

CHAPTER 4 RESEARCH RESULT

4.0 Introduction 69

4.1 Preliminary Analysis 69

4.1.1 Data Processing 70

4.1.2 Outlier Detection 71

4.1.3 Normality Analysis 72

4.1.4 Multicollinearity Analysis 73

4.1.5 Common Method Bias 73

4.1.6 Non Responsive Bias 75

4.1.7 Analysis Demographic Profile Respondents 75

4.1.8 Analysis Descriptive Statistics of Study Variables 79

4.2 Rating Outer Model (Measurement Model) 80

4.3 Measurement Model 82

4.3.1 Testing Outer Model (Measurement Model) 82

4.3.2 Testing Inner Model 87

4.4 Structural Model 88

4.4.1 T-Statistic 89

4.5 Conclusion 90

CHAPTER 5 DISCUSSION AND CONCLUSION

5.0 Introduction 91

5.1 Summary of Statistical Analysis 92

5.1.1 Descriptive Analysis 92

5.1.1.1 Summary of Study Variables 92

5.1.1.2 Summary of Demographic Profiles 93

5.2 Discussion of Major Finding 94

5.2.1 Relationship between Optimism and PEOU 94

5.2.2 Relationship between Innovativeness and PEOU 95

5.2.3 Relationship between Discomfort and PEOU 96

5.2.4 Relationship between Insecurity and PEOU 97

5.2.5 Relationship between PEOU and User Satisfaction 97

5.3 Implication of the Study 98

5.3.1 Theoretical Implication 98

5.3.2 Managerial Implications 99

5.4 Limitation of the Study 100

5.4.1 Involvement of the Respondents' 100

5.4.2 Access to the People 100

5.4.3 Policy and Privacy 101

5.5 Recommendations for Future Research 101

5.6 Conclusion 103

References 104

Appendices 118

LIST OF TABLES

		Page
Table 3.1:	Difference between Original question and Modified question	51
Table 3.2:	Sources of Questionnaire's Questions	60
Table 3.3:	Example of Interval Scale (Section B)	62
Table 3.4:	Example of Interval Scale (Section C)	63
Table 3.5:	Example of Interval Scale (Section D)	63
Table 3.6:	Data Coding for Demographic Profile	65
Table 3.7:	Example of data coding for Section B, C and D questions	66
Table 4.1:	Respondent's demographic profile for Jabatan Kastam Malaysia.	76
Table 4.2:	Summary of descriptive statistics of the study variables	79
Table 4.3:	Reliability of Constructs	83
Table 4.4:	Cross Loading	85
Table 4.5:	Construct Correlations (Diagonal Elements are Square Roots of the AVE)	86
Table 4.6:	Inner Model Results by size of R-Square	87
Table 4.7:	Path Coefficients for Hypothesis Testing between Optimism, Innovativeness, Insecurity, Discomfort, Perceived ease of use, and User satisfaction.	89
Table 5.1:	Descriptive Statistics	92
Table 5.2:	Summary of Hypothesis Results	94

LIST OF FIGURES

		Page
Figure 2.1:	Conceptual framework of Lin & Hsieh (2007)	29
Figure 2.2:	Conceptual framework of Chen & Chen (2009)	31
Figure 2.3:	Conceptual framework of Shih & Lee (2014)	33
Figure 2.4:	Conceptual framework of Tu, Fang & Lin (2012)	35
Figure 2.5:	Proposed Theoretical Framework	37
Figure 3.1:	G power result	49
Figure 3.2	Example of Nominal Scale	61
Figure 3.3:	Example of Ordinal Scale	61
Figure 4.1:	Path coefficients among the Independent variables, and dependent variable.	81
Figure 4.2:	T-value among the dependent variables and independent variables.	88

LIST OF ABBREVIATIONS

SMK	Sistem Maklumat Kastam
DNT	Dagang Net Technologies Sdn Bhd
OGA	Other Government Agencies
SST	Self-Service Technologies
TR	Technology Readiness
TRI	Technology Readiness Index
TAM	Technology Acceptance Model
MSC	Multimedia Super Corridor
MAMPU	Malaysian Administrative Modernisation And Management Planning Unit
PMS II	Project Monitoring System
HRMIS	Human Resource Management Information System
GOE	Generic Office Environment
EP	Electronic Procurement
ELX	Electronic Labour Exchange
SPSS	Statistical Package For Social Sciences
TRA	Theory Of Reason Action
TES	Technology Enable Services
SSB	Self-Service Banking
SEM	Structure Equation Model
VIF	Variance Inflation Factor

LIST OF APPENDICES

Appendix A:	Result of G power	118
Appendix B:	Original and modified questions of Technology readiness index	118
Appendix C:	Original and modified questions of user satisfaction	123
Appendix D:	Original and modified questions of perceived ease of use	124
Appendix E:	Sources of questionnaire questions	125
Appendix F:	Example of Interval Scale question from Section B	126
Appendix G:	Example of Interval Scale in Section C	126
Appendix H:	Example of Interval Scale in Section D	127
Appendix I:	Table of Demographic Profile and Coding	127
Appendix J:	Table of Data Coding for Section B, C and D	128
Appendix K:	Result of Normality test	129
Appendix L:	Total Variance Explained common method bias	134
Appendix M:	Frequency table for respondent's demographic profile for Royal Malaysian Customs	137
Appendix N:	Chart diagram for respondent's demographic profile from Royal Malaysian Customs	139
Appendix O:	Descriptive Statistics of the study variables	142
Appendix P:	Path coefficients among the Independent variables, and dependent variable.	142
Appendix Q:	Reliability of Constructs	143
Appendix R:	Cross Loading	144
Appendix S:	Construct Correlations	145
Appendix T:	Inner Model Results by size of R-Square	145
Appendix U:	F-Square	145
Appendix V:	T-value among the dependent variables and independent variables	146
Appendix W:	Path Coefficients for Hypothesis Testing	147
Appendix X:	Final Year Project Questionnaire	148
Appendix Y:	Letter of Permission to Conduct Survey	160

ABSTRAK

Sistem Maklumat Kastam (SMK) juga dikenali sebagai sistem e-permit, dimana sistem ini pada awalnya dibesarkan dan digunakan di Malaysia secara luas oleh Jabatan Kastam Malaysia pada tahun 2006. SMK boleh memudahkan kerja pengimport, pengeksport atau ejen penghantaran. SMK membolehkan mereka memohon melalui Agensi Kerajaan Lain (OGA) dan mendapat kelulusan melalui internet sebelum dihantar ke Sistem Maklumat Kastam (SMK) secara elektronik. Ini adalah untuk pengesahan dan meningkatkan process dengan keberkesanan dan kecekapan. Tujuan kajian ini adalah menentukan kesediaan teknologi dan penerimaan Sistem Maklumat Kastam (SMK) di kalangan pegawai kastam di Jabatan Kastam Malaysia. Analisis data kuantitatif telah dilaksanakan dengan sasaran populasi tumpuan kepada pegawai adat di Jabatan Kastam Malaysia. Walau bagaimanapun, jumlah penduduk sasaran Jabatan Kastam Malaysia tidak tepat dan tidak diketahui dan kemudahan sampling telah digunakan dalam kajian kita. Terdapat 106 sampel dikumpulkan dari populasi sasaran dan ia cukup baik untuk menguji model penyelidikan kerana G power mengira 92 sampel saiz. Smart PLS versi 3.2.6 telah digunakan untuk menguji lima hipotesis. Melalui kajian ini, para penyelidik telah mendapati bahawa inovatif, ketidakselesaan dan ketidakamanan menpengaruhi kemudahan SMK dan kepuasan terhadap sistem SMK tetapi kecuali optimisme. Implikasi manger, kajian penyelidikan masa depan dan batasan kajian telah dibincangkan dalam setiap bab dengan terperinci.

ABSTRACT

System Maklumat Kastam (SMK) also known as system e-permit, which this system was initially brought up and used Malaysia wide by Royal Malaysian Customs in year 2006. SMK greatly ease the works of importers, exporters or appointed forwarding agents to apply for the permit as SMK enable them to apply through Other Government Agencies (OGA) and obtained the approval online via the internet before transmitted to Sistem Maklumat Kastam (SMK) electronically for authentication and cross reference purposes to increase the effectiveness and efficiency of the process. The purposes of this research is determine the effect of technology readiness and acceptance of Sistem Maklumat Kastam (SMK) among the customs officers in Royal Malaysian Customs. A quantitative data analysis was executed with where the target population were focus on the custom officers in Royal Malaysian Customs. However, the exact amount of the target population for Royal Malaysian Customs is unknown, convenience sampling was used. There were 106 samples was collected from the target population and it is good enough to test the research model because the G power software calculated 92 samples size. Smart PLS version 3.2.6 was used to test five hypothesis. Through this study, the researchers found that innovativeness, discomfort and insecurity affected the custom officers' perceived ease of use and satisfaction towards the SMK systems except optimism. Manger implication, future research study and the limitation of the study was discuss in detail.

CHAPTER 1: INTRODUCTION

1.0 Introduction

This chapter begins with the explanation of the term at the same time identifies the issues that the researchers need to be considered in every part. This research aims to study or identify the effect of technology readiness and number of acceptance of Sistem Maklumat Kastam (SMK) as a tool to support the agency among custom officers only. First and foremost, in this chapter also, the researchers will start off by having a detail explanation of SMK background research which follows by the theory of Technology Readiness Index (TRI) and Technology Acceptance Model (TAM). Next, the problem statement will focus on the effect of technology readiness and acceptance of SMK in Jabatan Kastam Malaysia. Furthermore, the research objective will be determined along with the research questions which will be stated according to the objective. In addition, relevant hypotheses of the study also will be constructed in this chapter. The significance in this study is discuss about the importance and contribution of the study to the custom department according to the chapter arrangement and provide a brief outline for each chapter of the research. Next, the last part is a summary or conclusion of the whole chapter 1 will be provided as the last part of the chapter.

1.1 Research Background

The latest updates for the Sistem Maklumat Kastam (SMK) is on 19 June 2017. The new updates are about cancelling the goods and services tax (GST) on over 60 food

items that will be enforced on 1 July 2017. SMK is a custom operating system. Since 1993, it used to deals with custom that related to the transactions. SMK was not fully automated therefore, the system still require some forms of manual processes by the user. SMK also known as system e-permit, which this system was initially brought up and used Malaysia wide by Jabatan Kastam Malaysia in year 2006. It also was a web-based value-added service that provided by Dagang Net Technologies Sdn Bhd (DNT). SMK greatly ease the works of importers, exporters or appointed forwarding agents to apply for the permit as SMK enable them to apply through Other Government Agencies (OGA) and obtained the approval online via the internet before transmitted to Sistem Maklumat Kastam (SMK) electronically for authentication and cross reference purposes to increase the effectiveness and efficiency of the process.

Based on previous studies, Parasuraman (2000) and Kuang, Chung, and Chen (2013) had determine or identified the factors that affects the choice of customers to switch to SST (Self-Service Technologies) and other technology based services which depended on the marketing perceptions. Several factors that complied with the acceptance of new technologies or services which eventually affected through technology interaction had been identified. TRI also mentions to people's who are tendency to accept and use the new technologies to accomplished goals in workplace or in home. (Parasuraman, 2000; Kuang et al., 2013). TRI construct can be viewed as the overview of the mind which resulted from a gestalt of mental enablers and inhibitors that collectively determine a person's predisposition to use new technology (Lin, Shih & Sher, 2007). According to Lin and Hsieh's study (2007), it is important for the firms in considering the use of SST to handle TR customers as it was showed in their study when TRI of consumers is higher means the satisfaction and behavioural intentions of that particular customer when using the self-service technology is higher.

Besides, TRI composed of four dimensions which are optimism, innovativeness, discomfort and insecurity. According Tsikriktsis study's (2004), the four dimensions of TRI were explained as below:

- Optimism: defined people have a positive view on technology. People believe the technologies can increased flexibility, control, and efficiency in their lives.

- Innovativeness: defined as the propensity to be a technology pioneer and a thought leader. It also measures the range of an individual believes who be the first to try the new technology-based products or services may considered as opinion leader on technology-related issues by others.

- Discomfort: defined as perceived lack of control over the technology and speechless feeling from it. This represented the extent to which an individual having a general paranoia about a particular technology based products and services where they deeply believed that it tend to be exclusionary rather than inclusive to everyone.

- Insecurity: defined as feeling of disbelief towards technology and uncertainty about its ability to work properly. It also related to discomfort. This dimension more focuses on the specific characteristics of technology based transactions, rather than discomfort with technology.

The first two dimensions which are optimism and innovativeness are more concern on positive view of using technology. Optimism refers to a belief that technology offers people to improve the flexibility, control and efficiency in their lives whereas, innovativeness defined as propensity to be a technology pioneer and a thought leader. (Parasuraman, 2000; Kuang et al., 2013). Both of this dimensions were considered as the lead of TR.

On the other hand, the last two dimensions which are discomfort and insecurity refer to as inhibitors of TR. Discomfort defined as the observed lack of control over the technology. This make people feel of being speechless. Insecurity defined as feeling of distrust towards technology and scepticism about its ability to work properly. (Parasuraman, 2000; Kuang et al., 2013). Based on their scores on the customers TR-scale, they may be classified to as one of the five segments. Users with higher score in confidence and innovation dimensions may be the initial users which belong to the segment of either Explorers or Pioneers. (Parasuraman & Colby, 2001; Erdogmus & Esen, 2011). Explorers refer to those who are highly motivated and confident in their ability in technology related works. This segment mostly consists of younger male which have much more opinion and educated than the other two segments. Pioneer was the second segment which exhibit low resistance level towards the technology. Users in these segments tends to be both male or female which possessed similar education level and tend to be more relatively to the remaining segments (Parasuraman & Colby, 2001; Erdogmus & Esen, 2011).

For consumers who fall under the others two TR dimensions which are discomfort and insecurity mostly categorized as Paranoids and out-segment. Paranoids refer to those who trusted and have confidence in the technology however, do not have the tendency to innovate. This segment have more tendency towards individual who are slightly older, female, individual who are less affordable and lower educational level. For example, baby boomers were the individuals who are less likely to use or accept technological changes. So, they were the opposite of Explorers by having higher discomfort and insecurity level.

Even the updates is important, in Parasuraman and Colby (2015) mentioned that original TRI used 36 items scale to indicate the people propensity. It also uses the cutting-edge technologies. the past researchers also does two part of research to update and reorganise the TRI. From the articles, the researchers can see that the past researchers described the multiple research stages and use 16 item scale to do analyses for produced TRI 2.0. In addition, the past researchers compared the TRI 2.0 with the original TRI in terms of structure, content and psychometric properties.

The last part of this articles is saying about validity, usefulness and reliability of TRI 2.0 to use as a customer segmentation tool.

Next, according to Priyanka (2012), Technology Acceptance Model (TAM) has been developed by Davis. TAM is one of the most popular research methods for forecast use. TAM also is an acceptance of information systems and technology for individual users. TAM help user understand and explain behaviour in an information system. The two factors of TAM is perceived usefulness and perceived of use. This two factors is most important to determine the actual system use and it influenced by external variables. The main external factors are social, cultural and political. For example, social factors are related skill and language. For political factors are related to technology in politics and crisis. Culture factors are related to the country culture and religion.

The objective of this study is to discover the perception and function of SMK by custom officers in Jabatan Kastam Malaysia. The results of this study indicated that user willingness of custom officers to accept the new technology as a tool to support or catch up on their works or tasks.

1.2 Problem Statement

According to Mazni (2002), computers were first introduced in Malaysia in the sixties. On 1965, National Electricity Board became the first public sector that used computer systems along with Inland Revenue Department which process the statistical information in the same year. The same system had been introduced and used by Examination Syndicate, Ministry of Education and the Statistic Department. Due to the increases awareness of computer as a tool for data processing, more and more organizations and institutions started to use computer as a way to do record keeping.

At the same time, although Malaysia got 11th place in the e-Government Conference 2009 however, it still lags behind as compared with other developed countries as according to a survey done by Brookings Institution in United States (Malaysia ranks 11th in e-govt., 2009). In 1996, implementation of e-Government was introduced by Multimedia Super Corridor (MSC) and in the following year, Malaysia government successfully launched the e-Government which refers to as Electronic Government with the purpose to help country regenerate itself and lead the country into the Information Age. E-Government enhances the organizations' convenience, accessibility and quality of interactions with the public greatly. E-Government can improves the information processes and improved the speed and quality of the government services. This allowed government to react to the needs and wants of its citizens in Malaysia more effectively and efficiently.

In the Malaysian context, Electronic Government refers to 'a linked between government agency multimedia network in Putrajaya (the new administrative center of Malaysia) with the centres of government across the country in order to facilitate the environment of government and provide efficient services to businesses and citizens' (Pemodenan Tadbiran dan Unit Perancangan Pengurusan (MAMPU),

1998). There were 7 Electronic Government Flagship Application projects listed as below and most of the projects were monitored by the Malaysian Administrative Modernisation and Management Planning Unit (MAMPU).

- Project Monitoring System (PMS II)
- Human Resource Management Information System (HRMIS)
- Generic Office Environment (GOE)
- Electronic Procurement (EP) (www.eperolehan.com.my)
- Electronic Services Directory (E-Services) (www.eservices.com.my)
- Electronic Labour Exchange (ELX) (www.elx.gov.my)
- E-Syariah (www.esyariah.gov.my)

Recently on 2016, Port Klang Authority General Manager, Dato' Capt. David Padman was deeply concerned with the issue of SMK malfunction in Westport, Port Klang. This causes a slight impact on the custom' import process speed as the movements or flows of the works were highly congested. The issue was caused by internal system failure. Containers were checked and released manually by the officers as a solution to reduce the congestion. The issue was beyond the control and expectation of the Port Klang Authority and Westports's terminal operators. Thus, Dato' Capt. David views this issues as a critical condition where it can affect the efficiency, growth and image of the Port Klang's as not only the National Port but also as a renowned world-class container port if the issue did not solved as early as possible. Jabatan Kastam Malaysia had been working out to resolve the situation by implemented a temporary alternative solution in the place of manual cargo clearance (Port Klang Authority Concerned Over Custom Information System Breakdowns - Maritime News Update @ BERNAMA.com, 2016). Because of this issues, the customs keep on updates the SMK and the latest updates for the Sistem Maklumat Kastam (SMK) which is about the cancelling the goods and services tax (GST) on over 60 food items that will be enforced on 1 July 2017.

The objective of this study is to explore the perception and function of SMK by custom officers in Jabatan Kastam Malaysia. The results of this study shown the custom officers user willingness to accept the new technology as a tool to support the custom officer, delivery agent and others government agencies.

1.3 Research Objectives

The purposes of this research project are stated in term of general objective and specific objective which are listed as below:

1.3.1General Objective

To determine the effect of technology readiness and acceptance of Sistem Maklumat Kastam (SMK) among the custom officers in Jabatan Kastam Malaysia.

1.3.2 Specific Objectives

1. To determine whether there is a positive relationship between optimism and perceived ease of use of SMK among the custom officers of Jabatan Kastam Malaysia.

2. To determine whether there is a positive relationship between innovativeness and perceived ease of use of SMK among the custom officers of Jabatan Kastam Malaysia.

3. To determine whether there is a negative relationship between discomfort and perceived ease of use of SMK among the custom officers of Jabatan Kastam Malaysia.

4. To determine whether there is a negative relationship between insecurity and perceived ease of use of SMK among the custom officers of Jabatan Kastam Malaysia.

5. To determine whether there is a positive relationship between perceived ease of use of SMK and user's satisfaction of using SMK among the custom officers of Jabatan Kastam Malaysia.

1.4 Research Question

The purpose of this research project is to investigate on the following research questions which are:

1. Does optimism has a positive relationship with perceived ease of use of SMK among the custom officers in Jabatan Kastam Malaysia?

2. Does innovativeness has a positive relationship with perceived ease of use of SMK among the custom officers in Jabatan Kastam Malaysia?

3. Does discomfort has a negative relationship with perceived ease of use of SMK among the custom officers in Jabatan Kastam Malaysia?

4. Does insecurity has a negative relationship with perceived ease of use of SMK among the custom officers in Jabatan Kastam Malaysia?

5. Does perceived ease of use has a positive relationship with user's satisfaction of using SMK among the custom officers in Jabatan Kastam Malaysia?

1.5 Significant of the Study

The significance of this study is based on the past literature or research that the researchers had gone through and come out with an important assumption. According to Yalcin, Kahraman and Yilmaz's study (2011), they pointed out that the custom officer's optimism view towards the SMK technology was one of the important variables that affect the acceptance and readiness of the government officer to use the SMK technology in the working environment. Attitude and the optimism towards the SMK technology are very important because this may directly affect the result of acceptance and readiness of the custom officer in using the SKM technology in the work place.

The perceive effectiveness by the custom officers themselves had been the key role in various aspects which related to the work environment. The effectiveness of custom officer with respect to the use and integration of technology in the workplace will improve the effectiveness and confidence of custom officers when dealing with customer issues, especially in the global environment where the customers themselves already involved in the use of new technology. Through the technology integration in the government sector, the self-efficiency and optimism towards the integration of the new technology will be one of the important factors that assist the government sector to improve their services quality and effectively improved their work productivity. Not only that but by having a positive attitude in accepting new technology also may effectively help the custom officer in using a

particular new technology. At the same time of being an effective individual, it also allowed the officers to be more proficient in using the SMK in their workplace. Last but not least, custom officers can learn or catch up to the new updates (cancelling the new GST standard 6% for more than 60 food items) to implement the new updates and skills on their works.

1.6 Chapter Layout

This research consist of total 5 chapters, which are the Introduction, Literature Review, Research Methodology, Research Results, Discussion and Conclusion on the study of the effect of technology readiness and acceptance of Sistem Maklumat Kastam (SMK) in Jabatan Kastam Malaysia, as shown below:

Chapter 1 Introduction

In Chapter 1, the background introduction of this research project will be contained inside which give reader an overview of the purpose of this study and clearly identify the research problem by providing detail explanation on the research problem and importance of this research for particular industry. In this chapter also, clear objective will be stated along with the research question that will be solve during the research project and clearly listed down all the hypotheses that will be tested in this research.

Chapter 2 Literature Review

In chapter 2, will be the literature review for the research project. In this chapter, journal and other secondary sources of data that the researchers had study during

the whole process of this research project will be provided as this also provide us the information and documentation of significant finding which the researchers had found from the past completed studies or research. At the same time, this chapter also helps us to identify all the important dependent and independent variables which related to our research problem. Besides, relevant theoretical models also will be studied in order to develop the proposed theoretical/conceptual framework which indicate the finding of this research and hypothesize the relationship between the independent variables and dependent variable.

Chapter 3 Research Methodology

In chapter 3, will be the research methodology that the researchers had carried out in the research project. In this chapter, the researchers will clearly mention on how we will construct our research and determine whether it will be qualitative or quantitative. Other than that, the researchers also will mention on what type of method that they will be use in this research project in order to collect the primary and secondary data for the constructed hypotheses. Besides, the sampling design, research instrument, constructs measurement, data processing and data analysis of this research project will be pointed out in order to provide a clear understand on how the researchers will carried out the data collection process.

Chapter 4 Research Result

In chapter 4, research result will have a clear explanation on the result that the researchers got after completed the previous chapters. At the same time, the researchers also will use the Smart PLS 3.2.6 and SPSS 22 to run data. The researchers also will provide any necessary tables, chart and also analysis on the respondent demographic profile in the descriptive analysis in this chapter. Besides, result of scale measurement and inferential analysis of this research also will be provided in this chapter in order for us to justify the reliability of the analysis and

examine the relationship of the variables that had been identified in the research project.

Chapter 5 Discussion and Conclusion

In chapter 5, summary of the previous chapter and discussion on the related finding that we had found will be provided. In addition, limitation of the study that we had found during the progress of the research along with the recommendation for the research project also will be provided in order to make it easier for future researchers who may research on this topic.

1.7 Conclusion

In conclusion for this chapter, the researchers had provide few hypotheses regarding the relationship of optimism, innovativeness, discomfort and insecurity towards user's satisfaction among the custom officer Jabatan Kastam Malaysia. In this chapter, we also had examined on the research background of the Jabatan Kastam Malaysia, the Technology Readiness Index (TRI) and Technology Acceptance Model (TAM), problem statement of the research as well as the formation of the research objective and the research hypotheses. So, in the next chapter the researchers will continue on the literature review which will discuss more on the factors that affect the technology readiness and acceptance of SMK in Jabatan Kastam Malaysia.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

There will be 3 main sections that will be outlined in this chapter. In the first part or sections of the literature review, the definition terms and dimensions of user satisfaction, technology readiness index (TRI) and technology acceptance model (TAM) will be illustrated. For the following part, relationship between the technology readiness index (TRI) dimensions such as optimism, innovativeness, insecurity and discomfort, perceived ease of use which is one of the technology acceptance model (TAM) dimension and user satisfaction will be evaluated. In order to further investigate the research objectives, this chapter also will provide the independent variables and dependent variables in the form of conceptual framework. Lastly, after the relationship between the independent variables and dependent variable had been established, hypothesis of the study will be formulated.

2.1 Literature Review

2.1.1 User Satisfaction

In the past, user satisfaction had been widely used and cited as a dependent variable to measure or evaluate the success or failure of a particular system. According to Galletta and Lederer's study (1989), researchers in the past had already investigated the relationship between fulfillment of user's requirement, information, website design and support provided to end users as contributor to user satisfaction. In a given situation, user satisfaction refer to a sum of one's feelings or attitudes towards different factors that affect the situation (Bailey & Pearson, 1983).

User satisfaction also known as an emotional reaction of the user after the user or consumer had experienced a technology product or services (Chen, 2011). The research generally agreed in Igerhseim (1976); Lucas (1978); DeLone and McLean (1992); Zeithaml (2002); and Sharma, Shakya and Kharel (2014) studies, where user satisfaction was not only a way used by user to assess the view towards a system but it also represents the user's affective attitude towards the system on whether it had fulfilled or met with their expectation and need. This was further supported in Pinar, Mehtap and Erzengin's study (2012), where user satisfaction was generally refer to as individual or user's pleasure get from the usage of information technologies. Therefore, user satisfaction also defined as the user reinforce satisfaction when the user believe that the information system fulfilled their requirement or need (Ives, Olson & Baroudi, 1983). Hence, in combination with the actual use, user satisfaction will be the main principal in evaluating the success of an information system.

Since 1980s until now, user satisfaction had been used as an evaluation system to measure the success or failure of an information system. However, measuring the success or failure of the system is a difficult task as it required to fulfill two needs which are summative evaluation for the researcher and formative evaluation for the practitioner (Gallette & Lederer, 1989). Summative evaluation refer to the investigation done by researcher in identifying the relationship between user satisfaction with other variables in order to provide a better understanding of the environment while formative evaluation refer to the feedback mechanism used to uncover the user perception of strength and weakness in order to make more improvements (Gallette & Lederer, 1989). In addition to Gallette and Lederer's study (1989) where measuring user's satisfaction towards an information system not only assist in detecting the strength and weakness of a system, but it also measures the user's point of view such as the perceived ease of use towards the information system rather than the technical quality of the system (DeLone & McLean, 1992). This was agreed in Sharma, Shakya and

Kharel's study (2014) where they had indicated that satisfied users are more likely to had higher usage of services which possessed strong interaction and regularly recommend it to their family and friends.

In order to measure the user satisfaction towards a particular information system, numbers of different measuring instruments had been developed by the past researchers and most of the instruments were developed through existing literature, questionnaire, interviews or combination of the methods (Shirani, Aiken & Reithel, 1994). For example, Gallagher (1974) used both questionnaire and interview to identify the instrument, Jenkins and Ricketts (1979) developed 20 items of user satisfaction instrument through the existing literature review and interviews, Larcker and Lessig (1980) developed two three-item scales that perceived usefulness of an information provided by the system through interviews, Bailey and Pearson (1983) recognized 39 factors that affect user satisfaction through existing articles, questionnaires and interview and Ives et al. (1983) instrument which developed through questionnaire and existing literature (Ives et al., 1983; Doll & Torkzadeh, 1988; Galletta & Lederer, 1989; Shirani et al., 1994; Dastgir & Mortezaie, 2012).

2.1.2 Technology Acceptance Model

Technology acceptance model (TAM) which developed by Davis (1989) was one of the widely used research models in predicting the acceptance level and use of technology and information systems by an individual users (Yousafzai, Foxall & Pallister, 2007; Park, 2009; Suki & Ramayah, 2010; Surendran, 2012; Fathema, Shannon & Ross, 2015). The model was adapted from Ajzen and Fishbein's Theory of Reason Action (TRA) in order to explain the relationship between user's internal belief such as perceived usefulness and ease of use, attitude and technology usage behavior (Davis, 1989; Yousafzai et al., 2007). Although technology acceptance model tend to be less general than theory of reason action, it can be apply to any type of

technology to measure the user's acceptance level (Suki & Ramayah, 2010). This is because, TRA is a potential theoretical base for research or study on the determinants of user's behavior as suggested by information system investigators. Hence, the adaptation of technology acceptance model from TRA had become a powerful model which use to explain individual usage behavior towards technology (Yousafzai et al., 2007).

According to Davis's (1989) and Fathema et al.'s (2015) studies, technology acceptance model consisted of two fundamental factors of user's technology acceptance which are perceived ease of use and perceived usefulness along with other three constructs namely attitude toward using, actual use and behavioral intention to use. It was further explained in Surendran's (2012) study, where he stated that both perceived ease of use and perceived usefulness were influenced by external variables such as cultural factors, social factors and political factors. Various studies had been conducted in the past by past researchers on technology acceptance model where it led to the changes from the original proposed model (Surendran, 2012). This was already mentioned in Park's (2009) and Fathema et al.'s (2015) study where as a model which explain how an individual adopt and use technology, variables of technology acceptance model had been modify and examined frequently by many researchers.

2.1.2.1 Perceived Ease of Use

According to Davis's (1989); and Koivisto, Makkonen, Frank and Riekkinen's (2016) studies, perceived ease of use was defined to as the degree to which an individual believed that he or she by using a particular technology based product or services would be free of effort. This definition had been adopted in many previous researches or studies because perceived ease of use had a strong influences on individual's intention to technology acceptance and satisfaction (Davis, 1989; Maslin Masrom, 2007; Suki & Ramayah, 2010; Tu, Fang & Lin, 2012; Sibona & Choi, 2012; Juniwati,

2014; Shih & Lee, 2014; Blut, Wang & Schoefer, 2016). To put it in a simple explanation, perceived ease of use refer to the perception of an individual which they believed that it was easy for them to interact with the system or technology (Chan & Hu, 2001).

As another major determinant of attitude which was used in the TAM model, perceived ease of use was a belief that believed to ties to the individual's assessment of mental effort which involved when using a system (Davis, 1989). This was agreed in Venkatesh, Morris, Davis and Davis's study (2003) and Bavarsad and Mennatyan's study (2013), where they stated that perceived ease of use refer to an internal feeling of a person which believed that the use of new technology or system is not complicated and only required little mental effort in order to use it. Individual perceived ease of use of a particular technology consist of few category such as service quality, visual factors, simplicity, innovativeness and speed which will directly affect an individual's overall satisfaction (Sharma et al., 2014).

In the terms of technical language, perceived ease of use also known as user friendliness of a particular system (Pinar et al., 2012). This means that an individual does not required any additional effort in both the data entry and finding the data in the system. This was explained in past research where the perceived ease of use of the technology make it easier for an individual employee to accept any new technology and lead to having positive effect on user's satisfaction (Mahmood, Burn, Gemoets & Jacquez, 2000). This was further supported in Bavarsad and Mennatyan's study (2013), where perceived ease of use was an effective factor in user satisfaction in e-service. For instead, individual or user will always perceived a particular technology system or services to be difficult when the system is hard to learn and use. On the other hand, if the system is easy to learn and use, it will directly increase an individual's satisfaction (Sharma et al., 2014).

Based from the literature on information technology, perceived ease of use refer to how an individual adapt their behavior according to the new

technology when they perceived the technology to be easy to use and learn (Muslim Amin, Rezaei & Abolghasemi, 2014). Besides that, although both perceived ease of use and perceived usefulness were considered to as distinct factors that affect or influenced an individual's attitude towards new technology, perceived ease of use was found to had a more positive influences on individual's intention and satisfaction as compared to perceived usefulness (Suki & Ramayah, 2010). This is because, numerous studies or researches had been done in the past where perceived ease of use had been hypothesized to influence an individual or user's perceived usefulness towards a technology (Maslin Masrom, 2007).

2.1.2.2 Perceived Usefulness

Perceived usefulness is known as the degree to which a particular user's perceived that by using a specific system or technology, he or she able to increases their job performance (Davis, 1989; Yousafzai et al., 2007; Jahangir & Begum, 2008; Fathema et al., 2015; Blut, Wang & Schoefer, 2016; Koivisto et al., 2016). This was further explained in Davis's (1989) and Suki and Ramayah's (2010) studies, where perceived usefulness was important in providing analytical insight to the researchers on how an individual's attitude and intention towards technology will be influenced, how perceived usefulness affect directly on the user's intention to use and influences via attitude. To put it in a simple way, perceived usefulness refer to the user's perceptions on the experience in using a particular technology (Davis, 1989; Jahangir & Begum, 2008).

Based on the research of acceptance of new technology context, perceived usefulness is known as an individual or user perceptions on online shopping performance through internet (Juniwati, 2014). This justify the statement in Yousafzai et al.'s (2007) study, where perceived usefulness was initially defined in the context of job performance however, later it will be used in non-organizational settings such as internet shopping. Furthermore,

perceived usefulness also is an important factor in determining product and service innovative adaptation (Jahangir & Begum, 2008).

In addition, although both perceived usefulness and perceived ease of control were an important determinants in predicting individual attitudes towards a system, perceived usefulness tend to be more influences than perceived ease of control (Davis 1989; Elkaseh, Wong & Fung, 2016). However, this was argued by many other researchers where perceived ease of use was the one who will influenced perceived usefulness. This is because, whenever an individual or user perceived a technology to be easy to use, he or she will directly perceived that particular technology to be useful. Therefore, perceived usefulness was influenced by perceived ease of use as it had a stronger influences on technology acceptance model (Yousafzai et al., 2007; Jahangir & Begum, 2008; Juniwati 2014; Fathema et al., 2015). However in this research, perceived usefulness is not chosen or necessary because the use of SMK system is compulsory for all custom officers even if they do not want to use it and the usefulness of the system had already been determined by the government itself. Therefore, the researchers decided to not focus on individual's perceived usefulness in this study.

2.1.3 Technology Readiness Index (TRI)

With the emerging and growth of more new technologies in the society, it is important for the business to identify or explore the willingness and satisfaction of people in using these new technologies (Meuter, Ostrom, Bitner & Roundtree, 2003). According to Chen and Chen's study (2009), many works or research had been studied by past researchers on user reactions towards the acceptance of technology based systems as a part of their work and home life. Previous literatures shown that users often accept the use of technology however, users also exhibited the feeling of anxiety when they implement or used the technology (Lin & Hsieh, 2006). Although the implementation of technology provide more flexibility and reduces time

consumption for majority of the user, however, it is still unavoidable that some of the users were feeling uncomfortable when deal with technology which result in frustration (Lin & Hsieh, 2006). This is because, the psychographic characteristics such as Technology Readiness Index (TRI) in every individual is different (Parasuraman, 2000; Parasuraman & Colby, 2015). Therefore, it might be both difficult and easy for different people in accepting a new technology (Chen, 2011).

Based on the study of past researchers, the term Technology Readiness Index (TRI) refers to people's propensity to use and embrace new technologies for the purpose of accomplishing goals in home and work life (Parasuraman, 2000; Parasurama & Colby, 2015). In order to understand the acceptance level of an individual towards a new technology, TRI construct can be used to measure the acceptance level (Parasuraman, 2000; Shin & Lee, 2014). The construct can be viewed as an overall state of mind of an individual which result from a gestalt of mental enablers and inhibitors that collectively determine a particular person's tendency towards the use and acceptance of new technology (Parasuraman, 2000; Lin & Hsieh, 2006; Lai, 2007).

Technology Readiness Index (TRI) also known as the personality trait which used to measure an individual orientation towards technologies and as a direct influencer of individual satisfaction (Wang, So & Sparks, 2016). Hence, technology readiness can be seen as an individual psychological status which consists of two different kinds of forces in psychology that affect the willingness of a particular person to use the technology. Such forces are enablers and inhibitors as according to past literatures done by past researchers (Chen, 2011). Furthermore, technology readiness is a combination of both positive and negative technology related beliefs which believed to be vary between individuals. Mutually, these beliefs will influence an individual's perception and tendency to interact with a particular new technology (Godoe & Johansen, 2012). As a multidimensional construct, technology readiness able to capture the mental

readiness and acceptance of an individual for new technological innovations (Wang et al., 2016). This was supported by Nik Abdullah's (2012); and Hallikainen and Laukkanen's (2016) empirical studies where he suggested that every individual consists of two technology beliefs which are both positive and negative belief that can be categorized into four dimensions of technology readiness proposed by Parasuraman (2000).

In Chen and Chen's (2009); and Stock and Grob's (2016) studies, they explained that the four dimensions of technology readiness of the users were separated according to their dominant or prevailing personalities and traits. The dimensions were separated into half with two factors being the motivators or enablers of new technology whereas, the other two being the inhibitors (Mendez, Parasuraman & Papadopoulos, 2017). The four dimensions were referred to as optimism, innovativeness, discomfort and insecurity. The first two dimensions which are optimism and innovativeness were known as the motivators or enablers of technology readiness whereas, the other two dimensions which known as discomfort and insecurity will be the inhibitors (Masood, Mohaidat & Rashedi, 2013; Nugroho, 2015; Koivisto et al., 2016). Past literatures had found out that optimism and innovativeness had a positive relationship with the user readiness whereas discomfort and insecurity had the negative relation (Nik Abdullah, 2012). Thus, technology readiness cannot be ignored when evaluate an individual's acceptance of new technology, as it plays a vital role in causing the perceptions and behavior of that particular individual.

2.1.3.1 Optimism

According to Tiger's (1979) studies, optimism was defined as an attitude or mood which associated with an expectation of the future social or material, where one was regarded as socially desirable to his or her advantage or for his or her own pleasure. This was further explained where optimism was considered to be the general expectancy of positive future which reflects the

overall positive appraisal of the future (Santilli, Marcionetti, Rochat, Rossier & Nota, 2016). This is because, optimism as the main variable of positive psychology was effective in increasing individual satisfaction and life quality which eventually lead to having hopeful views (Luthans, Lebsack & Lebsack, 2008; Homaei, Bozorgi, Ghahfarokhi & Hosseinpour, 2016).

Optimism also was defined as an individual explanatory style where optimist tend to invoke external, specific causes and unstable whereas, pessimists tend to invoke internal, general causes and stable as stated in Buchanan & Seligman's (1995); Leung, Moneta & Chang's (2005); Luthans et al.'s (2008) studies. This was supported by previous research done by Yuan and Wang (2016) where optimism was defined as the tendency of people who attribute specific positive incidents to permanent and internal factors whereas, attribute negative incidents to temporary and external factors. Optimism also refer to as the attitude or tendency to view the work and interpret events and situations positively and also can be considered as human strength and virtue (Sheldon & King, 2001; Santilli et al., 2016). Hence, optimism had been defined as longitudinally and cross situationally stable tendency which believe that one will experience positive and negative situations or life events (Scheier & Carver, 1985).

In addition, according to Scheier & Carver's study (1985), general expectation of positive or favorable outcomes or situations had been defined to as dispositional optimism where it also described to as an activity related to self-regulation and goal attainment. In Leung, Moneta and Chang's study (2005), it also stated that dispositional optimism had leads to a more positive evaluations and expectations of both past and future life events and situations. This is because, optimism not only acts to reduce individual's perceptions of stress but also increase individual's ability to perform (Scheier & Carver, 1992). Therefore, optimism would eventually increases the level of an individual's satisfaction as the higher the level of an individual's optimism, the higher the levels of an individual's satisfaction

(Scheier & Carver, 1982). This was proved in Seligman's (1998) study, where optimism may be related to higher productivity and satisfactions (Luthans et al., 2008). Furthermore, optimism can be further differentiate into big and little optimism where big optimism was culturally and biologically bound with the socially acceptable norms whereas, little optimism refer to as characteristic with specific and adaptive action (Luthans et al., 2008). It was further argued in Yuan and Wang's study (2016), where optimism not only involves around different cognitive tendencies toward past and future events but involves different emotional consequences and satisfaction.

Moreover, optimism not only refers to as a positive view of future or past events but it also refers to a positive view towards technology and belief that a particular technology will increases the consumer or user's control, flexibility and efficiency in everyday lifestyle (Parasuraman, 2000; Koivisto et al., 2016; Stock & Grob, 2016). This definition was adopted and further explained in Johnson, Bardhi and Dunn's (2008) and Wang et al.'s (2016) studies, where the perception of control plays a significant part in developing a feeling of satisfaction with self-service technology. This is because, optimistic people value technology enable services (TES) more which lead to having higher trust in new technologies and perceived more positively on the functionality of new technologies (Walczuch, Lemmink & Streukens, 2007; Lu, Wang & Hayes, 2012; Wang et al., 2016). Therefore optimism will increases customer and user satisfaction as stated in Thong, Hong and Tam's (2006) and Wang et al.'s (2016) studies. User or individual with high optimism level also not only able to anticipate the stressor, but also able to respond proactively to the stressor which result in having less burnout and higher satisfaction (Crosno, Rinaldo, Black & Kelley, 2009).

2.1.3.2 Innovativeness

Based on Garcia and Calantone's study (2002), innovativeness was defined to be frequently used as a measure of the degree of new innovation where highly innovative products were seen as having higher degree or newness whereas, low innovative product sit at the opposite extreme of the continuum. This was supported by past researchers where innovativeness had been defined in terms of product's newness relative to the firm and relative to the outside world (Kleinschmidt & Cooper, 1991; Song & Montoya-Weiss, 1998). Innovativeness also had been categorize into three categories which were highly innovative products that consist of new to the world products and innovative new product lines to the company, moderately innovative products that consist of new lines to the firm but the product were not innovative to the market and low innovativeness products which consist of modifications to existing products, redesigned products and repositioning (Klenischmidt & Cooper, 1991). Innovativeness also had been defined as the tendency for a firm to develop or innovate a new product or services and adopt it (Damanpour, 1991; Rogers, 1995).

According to Parasuraman and Colby's (2001); Koivisto et al., 2016; Stock and Grob's (2016) studies, innovativeness refer to the tendency of an individual or firm to be the thought leader and technology pioneer. This is because, innovativeness tend to measures the extent to which an individual believes that he or she was the first in trying out a new technology and considered as an opinion leader or technology pioneer on technology related issues by others. Innovativeness can differentiated into two ideologies perspectives which were operationalized innovativeness for the firm where it considered as a strategic tool for the firm to identify which services or product is novel and customer perceived innovativeness where it provide the overview of innovativeness through customer point of view (Sreejesh, Amarnath & Debjani, 2015). Based on Hurt et al.'s (1977) and Agarwal & Prasad's (1999) studies, they described innovativeness as willingness to

change and developed a self-report that reflected to the definition of innovativeness. Innovativeness also consists of five categories of normal adopter which were innovators, early adopter, early majority, late majority and laggards (Rogers, 1995). It was further explained in Walczuch et al.'s study (2007), where individual who was early adopters of an innovative technology will use technology even the potential benefits were inexplicit.

Innovativeness according to Nik Abdullah's (2012); and Zulkifly, Zahari, Hanafiah, Hemdi and Ismail's (2016) studies, refer to consumer or user predisposition to adopt to the online transaction behavior earlier than his or her social system. Furthermore, individual with high innovativeness not only tend to have a stronger intrinsic motivation to use any new technology but also enjoy the stimulation of trying the new technology (Nik Abdullah, 2012). This is because, innovative customer or users are always curious about the new technologies and seen themselves as highly competent in using any new technologies as well as handling any uncertainties technologies present (Wang et al., 2016). Previous study done by past researchers such as Agarwal and Prasad (1999) where in their study, it had confirmed that the higher the innovativeness level of an individual, the more likely he or she will use the new technology. This was further explained in Chen and Chen's study (2009) and Chen, Jong and Lai's study (2014), where they had indicated that the innovativeness of an individual user or consumer will positively affected the user satisfaction where the higher the continuance intention and perceived ease of use, the higher the user's satisfaction.

2.1.3.3 Discomfort

Discomfort defined as the perceived lack of control over technology and the feeling of being overwhelmed by the technology (Parasuraman, 2000; Tsikriktsis, 2004; Kaur & Gupta, 2012; Lu et al., 2012; Guhr, Loi, Wiegard & Breitner, 2013; Wang et al., 2016). Discomfort also known as one of the

two inhibitors of technology use that caused the users unwilling to use technology. It also represent the extent to which an individual having general anxiety about technology based products or services (Guhr et al., 2013). This was supported by past literatures where discomfort had been stated as representing an individual general paranoia about technology in which that particular individual believing that the technology based products and services tend to exclusionary rather than inclusive to all kinds of people (Tsikriktsis, 2004). Discomfort is created when there is an inconsistency between the thoughts and actions which result in a reported feelings of uncomfortable tensions that defined as discomfort (Williams & Aaker, 2002). It also mentioned in the research done by Giebelhausen, Robinson, Sirianni and Brady (2014) where discomfort emerges in the form of feeling conflicted, confused and generally uncomfortable during the interaction with technology.

According to Lu et al.'s study (2012), individual who having high discomfort trait tend to perceive technology as complex and find self-service technology difficult to use as well as satisfied their own needs. This was further explained in Wang et al.'s study (2016), where individual who having high discomfort will eventually perceived any new technology to be complex and overwhelmed by the technologies whenever they feel or sense a strong lack of control over their ability to handle any uncertainty events. Thus, result in overestimate the technology's complexity. Based on Lu et al.'s (2012) study, in worst scenario, strong sense of discomfort will lead an individual to become distrustful of the new technology. Not only that but an individual also will perceived low functionality and usefulness of the technology and directly decreases the user satisfactions (Wang et al., 2016).

2.1.3.4 Insecurity

Insecurity is defined as the feeling of distrust of the technology and remained skeptical about the ability of the technology to function properly

or correctly (Parasuraman, 2000; Chen & Chen, 2009; Kaur & Gupta, 2012; Lu et al., 2012; Nik Abdullah, 2012; Chen, Jong & Lai, 2014; Hemdi, Rahman, Hanafiah & Adanan, 2016). This is because, a particular individual with strong sense of insecurity will always perceive technology to be insecure and skeptical of its performance which eventually lead to avoiding the use of any new technology due to theirs innate fear (Lu et al., 2012). Individual with high insecurity level also felt that they may having some risk if or when used new technology based products or services (Kuo, Liu & Ma, 2013). This had justified the study done by Hemdi et al., 2016, where the feeling of insecurity had affected an individual's perspective towards the technology such as the used of new technology based product and services will cause injury, unhealthy or harmful.

According to Tsikriktsis's study (2004), although insecurity somehow related to discomfort, it focuses more towards specific aspect of technology based transactions instead of focusing on lack of comfort in technology. Besides that, feeling of insecurity will result in people or user becoming resistance such as postponement, rejection, dismissal, restriction, deferment, or even opposition towards the use of any new technology based product or services (Nik Abdullah, 2012; Hemdi et al., 2016). In worst scenario, insecurity also will affect a company or firm's business operation resulted from the slow adoption of consumer or user towards the perceived lack of security of the self-service technology system (Parasuraman, 2000). It was generally acknowledged in the study of Hoffman et al. (1999) and Liljander, Gillberg, Gummerus and Riel (2006) where insecurity was one of the major contributor to slow adoption of a particular technology based product or services. In addition, insecurity was the negative emotions that trigger any negative behavior of an individual or user which might obstruct or block the user from utilizing the self-service technology (Nik Abdullah, 2012; Hemdi et al., 2016). Hence, it is expected that insecurity are negatively influence the customer or user's perceived ease of use towards the use of self-service technology based product or services.

2.2 Review of Theoretical Framework

2.2.1 Model 1

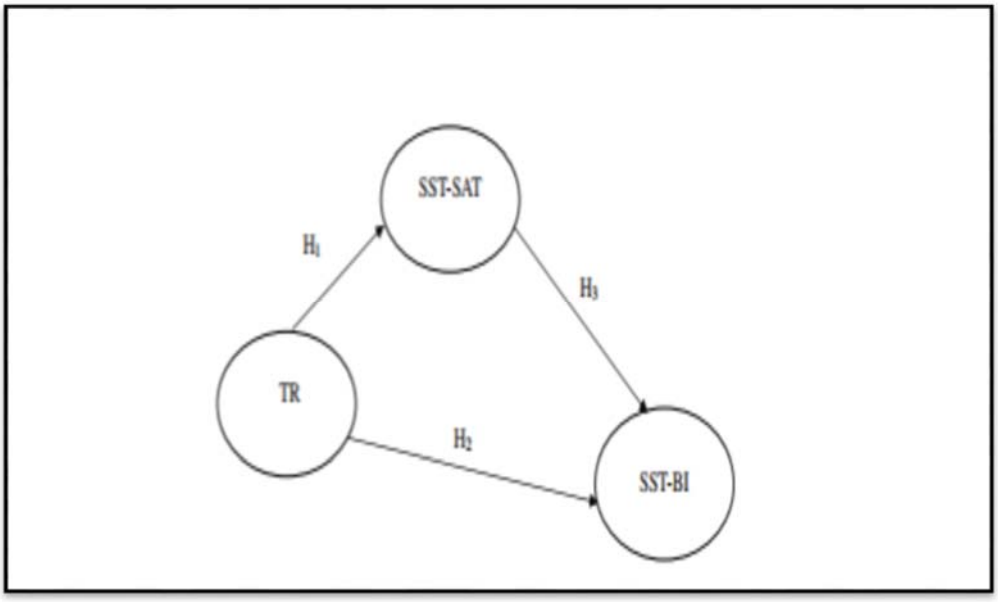


Figure 2.1: Conceptual framework of Lin & Hsieh (2007)

Adapted from: Lin, C. J. S. & Hsieh, P. L. (2007). The influence of technology readiness on satisfaction and behavioral intentions toward self-service technologies (SST). *Computer in Human Behavior 23(3): 1597-1615*.

The model provided above, shows the hypothetical relationship between technology readiness, customer satisfaction with self-service technologies and behavioral intention towards self-service technologies.

The purpose of this study was to examined the role of customer's technology readiness and assess it influence on both customer satisfaction and behavioral intentions towards the SST. These study consisted of a sample

of 500 adult consumers in Taiwan and a team of 20 research assistants who requested for personal participation in this study. The 36 item technology readiness index (TRI) developed by Parasuraman (2000) was adopted in the measurement of consumers' technology readiness while the measurement for customer's satisfaction with self-service technology was adopted from the study of Fornell et al. (1996); Wong and Kanji (2001); and Lin & Hsieh (2007). The measurement of consumers' behavior intentions towards self-service technologies was adopted from Cronin et al. (2000) and Zeithaml et al. (2002); and Lin & Hsieh (2007).

The result of the study shown that technology readiness is an important driver of customer's satisfaction with SST as there was a positive relationship between them. Besides, technology readiness also shown to had a significant positive influence on customers' behavioral intention towards SST and further provide confirmation that the more satisfaction a particular customer feel or experience when using SST, the more likely that particular customer will use it again and recommend it to others. Lastly the result concluded that, the higher the customer's technology readiness level, the higher the customer's satisfaction in using the SST and a more favorable behavioral intentions towards the SST (Lin & Hsieh, 2007).

2.2.2 Model 2

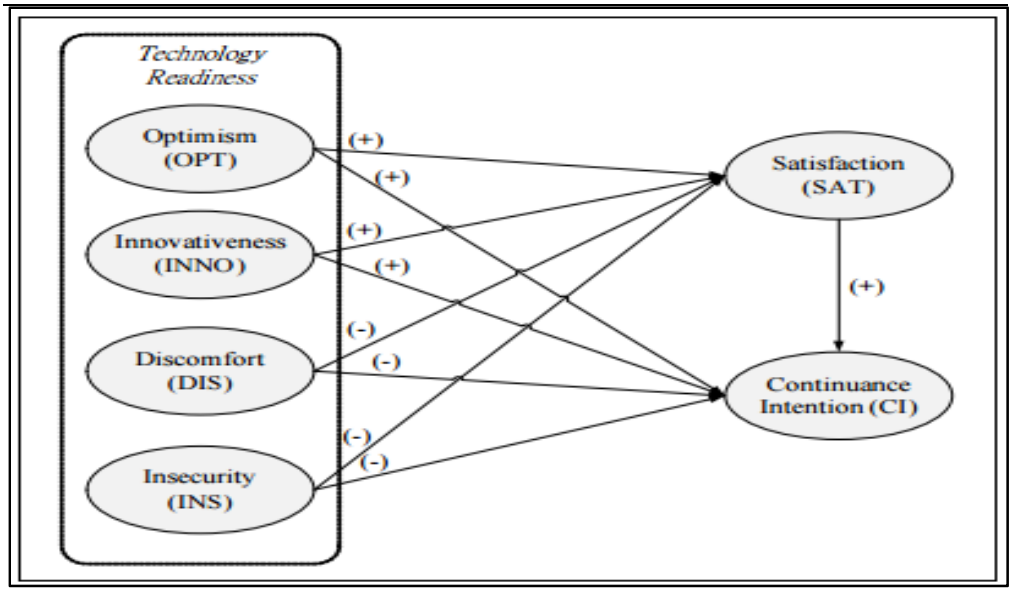


Figure 2.2: Conceptual framework of Chen & Chen (2009)

Adapted from: Chen, S. C. & Chen, H. H. (2009). The empirical study of customer satisfaction and continued behavioral intention towards self-service banking: technology readiness as an antecedent. *International Journal of Electronic Finance 3(1), 64-76*.

The above model illustrated in Figure 2.2, shown the relation between technology readiness which consist of four dimensions with satisfaction and continuance intention. The model was modified from conceptual framework of Lin and Hsieh (2007) which had been originally demonstrated in research done by Parasuraman (2000).

The purpose of this study was to examine the consumer satisfaction and the long term usage intention of self-service banking (SSB). The study also conducted in order to examine the relationship between technology readiness, satisfaction and continuance intention (Chen & Chen, 2009). There are a total sample of 402 users participate in this study where two university professors who familiar with e-commerce and e-financing were asked to provide assistance to examine the Chinese version of scale item.

According to the study, the measurement of technology readiness which consist of optimism, innovativeness, insecurity and discomfort is adopted from Parasuraman (2000) whereas, the measurement of satisfaction and continuance intentions were obtained from Oliver (1981); Davis (1989); Bhattacherjee (2001); and Chen and Chen (2009).

The result of the study found that satisfaction was positively influences the continuance intention while users' optimism and innovativeness influence the satisfaction of using self-service banking. The result also stated that, optimism and innovativeness were the two main motivators of behavioral intention towards the users' continuance intention of using self-service banking services. On the other hand, the influences of insecurity and discomfort on satisfaction and continuance intention in adopting the self-service banking were insignificant (Chen & Chen, 2009). These had further supported the study done by Meuter et al. (2000); Butcher et al. (2001); and Chen & Chen (2009) where it had been stated that customer or users' feeling of anxiety or worry from interaction with technology services will affect the users' satisfaction.

The result of the study also concluded that optimism had more effect on the users' satisfaction and continuance intention of using self-service banking services as compared with innovativeness. This study had proved and provide additional support for study done by Liljander et al. (2006), where it had stated that users or customers who are more willing to use new technology based services or product, along with a positive attitude are more likely to enjoy and satisfied in using self-service technology.

2.2.3 Model 3

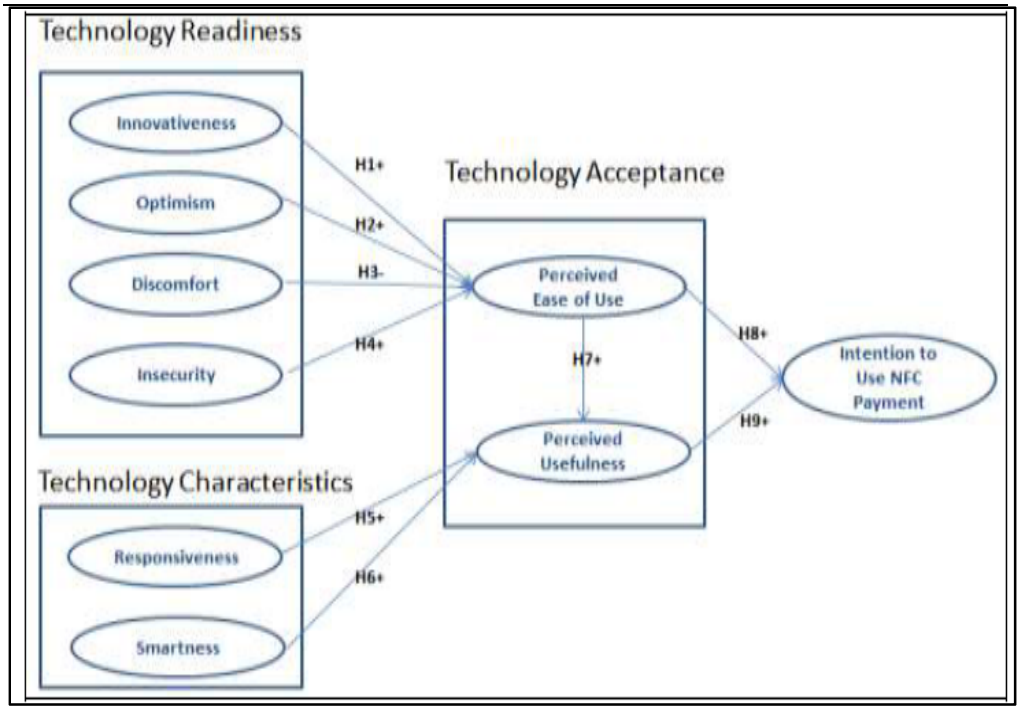


Figure 2.3: Conceptual framework of Shih & Lee (2014)

Adapted from: Shin, S. J. & Lee, W. J. (2014). The Effect of Technology Readiness and Technology Acceptance on NFC Mobile Payment Services in Korea. *The Journal of Applied Business Research, 30(6), 1615.*

The above figure 2.3 shown the relation between technology readiness index and technology characteristic with technology acceptance as the mediators towards intention to use NFC Payment.

The purpose of this study is to investigate the factors for the technology acceptance such as perceived ease of use and perceived usefulness which was used as an integrated model of technology readiness and technology characteristic. There are a total sample of 585 individuals from metropolitan areas of Korea who had experienced smartphone services. The TRI construct was measured using the 12 item TRI scale which was adopted from the study of Shin & Lee (2012). Meanwhile, in order to measure the responsiveness and smartness, measurement from Banwari and Lassar

(1996) and Pechmman and Ratneshwar (1994) was adopted into the study or research (Shin & Lee, 2012). Furthermore, the measurement for technology acceptance and behavioral intention by Hsu, Wang and Lin (2011) and Venkatesh and Goyal (2010) respectively also had been adopted into the study (Shin & Lee, 2014).

The result of the study found that the four dimensions of the technology readiness index had a significant impact on the perceived ease of use whereas the two technological characteristics which are responsiveness and smartness had an impact on the perceived usefulness. However, between both the perceived ease of use and perceived usefulness, only perceived usefulness had a significant impact or effect on the intention to use (Shin & Lee, 2014).

2.2.4 Model 4

Figure 2.4: Conceptual framework of Tu, Fang & Lin (2012)

Adapted from: Tu, C. C., Fang, K. T. & Lin, C. Y. (2012). Perceived Ease of Use, Trust and Satisfaction as Determinants of Loyalty in e-Auction Marketplace. *Journal of Computers, 7(3), 645*.

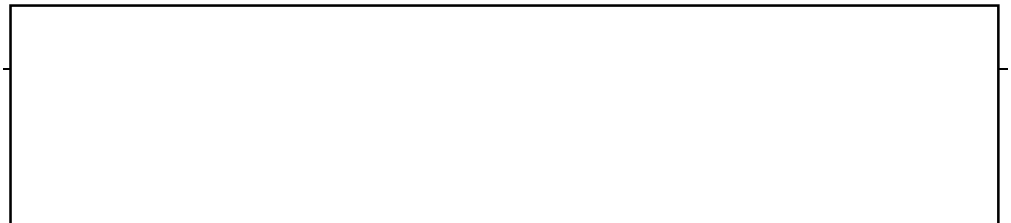
The above model in figure 2.4 shown the relation between rational and emotional. In detail, the rational segment shows the relation between perceived usefulness, perceived ease of use and trust with satisfaction and perceived control with loyalty. On the other hand, in the emotional segment shows the relation between shopping enjoyment and loyalty. However, both emotional and rational segment also shows the relation between satisfaction and loyalty.

The purpose of this study is to explore or determine what attracts and make the customer keep on coming back to the online auctions sites from the customers' perspectives and identified the factors that affect customer satisfaction and loyalty. There are a total sample of 316 users with auction experience participate in this study instead of the initial 800 users. The measurement of the technological acceptance which consist of perceived ease of use and perceived usefulness is adopted from the theory of reasoned action by Fishbein and Ajzen (1975); and Tu et al. (2012) while trust is

adopted from Flavien et al. and Tu et al., 2012. The measurement of shopping enjoyment was adopted from Ghani et al. and Tu et al., 2012 through the use of three scale item while for the measurement of perceived control was the four item scale from Koufaris (2002) and Tu et al., 2012.

From the result of this study or research, customer's loyalty shown to had great influence on the user's satisfaction. The result further shown that perceived ease of use, trust and user's satisfaction had a positive effect on consumers' loyalty whereas, perceived usefulness, perceived control and shopping enjoyment shown to had a negative effect on consumers' loyalty. According to Tu et al.'s study (2012), the researchers argued that only perceived ease of use had a positive relation or effect towards user's satisfaction instead of both perceived usefulness and perceived ease of use as suggested by previous researchers. However, this result was supported and proved by Tu et al. (2012) where perceived ease of use tend to has higher degree of satisfaction as compared with perceived usefulness. On the other hand, the result of trust further proved the study done by Zviran et al. (2006); and Tu et al. (2012) where an individual's trust in the system will provide a more accurate information along with perceived ease of use towards user's satisfaction.

2.3 Proposed Theoretical / Conceptual Framework



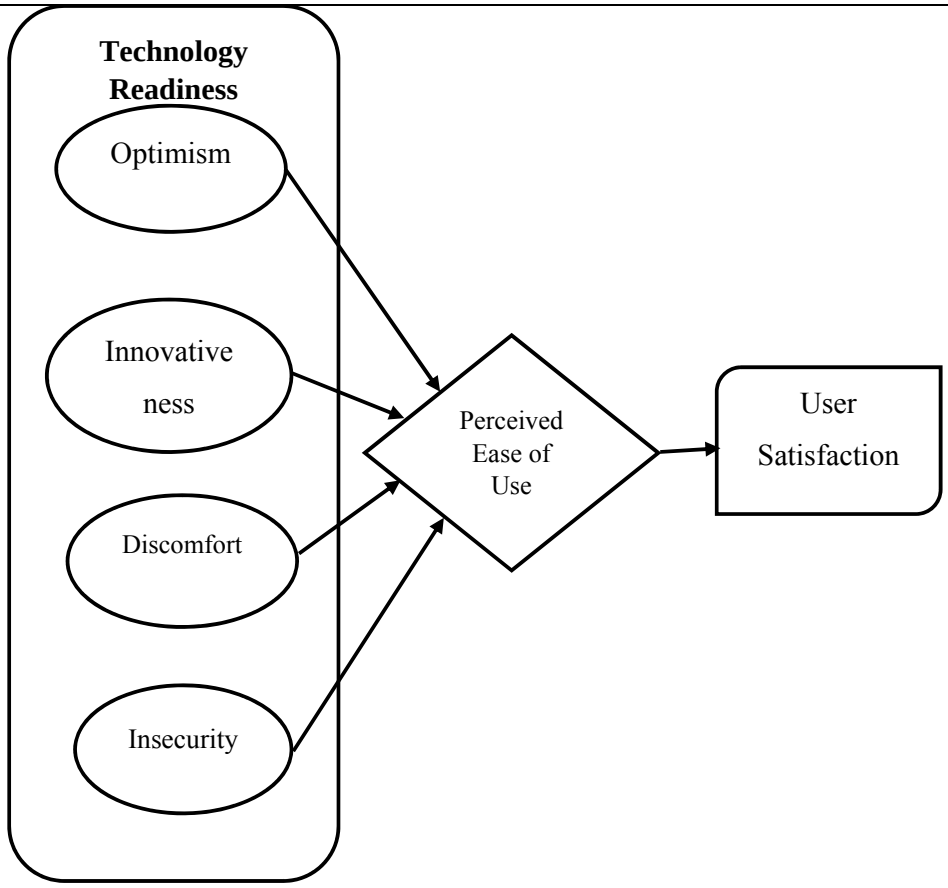


Figure 2.5: Proposed Theoretical Framework

Source: Developed for the research

The above conceptual framework as shown in Figure 2.5 is proposed based on the review of previous or past theoretical model. It is formed by the technology readiness which act as the independent variable and perceived ease of use towards user satisfaction which is the dependent variables.

The purpose of conducting this study or research is to determining the effect of technology readiness and acceptance of Sistem Maklumat Kastam (SMK) in Jabatan Kastam Malaysia. The proposed theoretical framework above consisted of

four dimensions for the independent variables which are optimism, innovativeness, discomfort and insecurity. The four dimensions is adopted from the dimensions developed by Parasuraman (2000). This is because, based on the previous research or study, the dimension of technology readiness index is more appropriate to use in determining the satisfaction of the user in using a particular new technology based product or services. Furthermore, as stated in chapter 1, the SMK system was just updated on 19th June 2017 where the updates was about the press release representation (Gazet) GST standard 6% for more than 60 food items. Besides, previous updates also allowed SMK system to have the QR code functions and online complaints for the officers and customers.

Although there were numerous study or research of this relationship that had been done before in the past, but the study of this relationship were still limited in Malaysia. Therefore, this study will determine how the satisfaction level of custom officers in Malaysia will be affected by the four dimensions of technology readiness towards perceived ease of use and user satisfaction. Further study or research and investigation are needed to prove this relationship.

2.4 Hypothesis Development

In the proposed theoretical or conceptual framework, we had identified all the important variables which are related to our study. Thus, we obtained the relevant information from the previous studies or research where the relationship which had been theorized, tested and proved.

2.4.1 Optimism and Perceived ease of use

Optimism is one of the main variables which used to integrate the feelings of a particular person towards the use of a new technology based product or services and generate the feeling of satisfaction towards the technology (Tsikriktsis, 2004). Optimism towards the use of technology also will provide a particular person with many benefits such as the increases of flexibility, control, efficiency or competence in their daily living and work life. This is because, an optimistic individual tend to achieve their desired result in a much more optimistic way or strategy (Walczuch et al., 2007).

On the other words, an optimistic individual are less likely to give attention or focus on negative issues or events as they accept the use or new technology in a much more flexible ways. Therefore, individual with high optimism will always look or perceived technology as the most easiest and effective ways in achieving the desired result and directly lead to having higher users' satisfaction level (Walczuch et al., 2007). Based on the above reviews, the hypothesis is formulated as below:

H0: There is no significant positive relationship between optimism and perceived ease of use of SMK among the custom officers in Jabatan Kastam Malaysia.

H1: There is a significant positive relationship between optimism and perceived ease of use of SMK among the custom officers in Jabatan Kastam Malaysia.

2.4.2 Innovativeness and Perceived ease of use

Innovativeness refers to the tendency of an individual or firm to be the technology pioneer and thought leader and considered to be an important determinant of cognitive absorption (Parasuraman, 2000). This shown that individual with high innovativeness tend to have a stronger or stable intrinsic motivation in accepting new technology and enjoy the trill and

sensation of trying new technologies. According to Agarwal and Prasad's study (1999), they stressed that innovativeness is important during the study of the acceptance level of an individual towards new innovated technology.

Furthermore, any individual who scored or have higher innovativeness level, generally will produce positive effect or impact when using the new technologies and eventually lead to having higher satisfaction level as they perceived that particular product or services as easy and effective to use (Parasuraman & Colby, 2001). Based on the above reviews, the hypothesis is formulated as below:

H0: There is no significant positive relationship between innovativeness and perceived ease of use of SMK among the custom officers in Jabatan Kastam Malaysia.

H1: There is a significant positive relationship between innovativeness and perceived ease of use of SMK among the custom officers in Jabatan Kastam Malaysia.

2.4.3 Discomfort and Perceived ease of use

Discomfort refer to the perceived lack of control over technology and the feeling of being overwhelmed by the technology (Parasuraman, 2000). This is because, an individual who is not comfortable in using the technology tend to believe that they had been controlled by the technologies and is not created to use by all people. Furthermore, individual who high in discomfort, tend to have feelings of anxiety when using the technology which directly provide a negative effect on the user's satisfaction (Hackbarth, Grover & Yi, 2003). As according to Lu et al.'s study (2012), discomfort also will make an individual to be distrustful towards any new technology and perceived it to be complex. Based on the above reviews, the hypothesis is formulated as below:

H0: There is no significant negative relationship between discomfort and perceived ease of use of SMK among the custom officers in Jabatan Kastam Malaysia.

H1: There is a significant negative relationship between discomfort and perceived ease of use of SMK among the custom officers in Jabatan Kastam Malaysia.

2.4.4 Insecurity and Perceived ease of use

In the context of this study, insecurity is defined as the feeling of distrust towards the technology and remained skeptical about the ability of the technology to function properly or correctly (Parasuraman, 2000). Next, individual who score high on insecurity tend to be less confidence on the safety of new technologies and thus, often required or demand assurance when using it (Parasuraman & Colby, 2001).

In addition, based on past researches or study, the feeling of insecurity will emerged in a particular person the moment he or she perceived that the new technologies consisted of numerous risk. This had been proved in the study of Lu et al. (2005), where the perception of risk will effect an individual's intention to use the technology due to insecurity. It was further stated in Tsikriktsis's study (2004), where people only will take risk when they perceived that using the new technologies will provide them will more benefit or advantages. Hence, based on the reviews above, the hypothesis is formulated as below:

H0: There is no significant negative relationship between insecurity and perceived ease of use of SMK among the custom officers in Jabatan Kastam Malaysia.

H1: There is a significant negative relationship between insecurity and perceived ease of use of SMK among the custom officers in Jabatan Kastam Malaysia.

2.4.5 Perceived ease of use and User satisfaction

Technology acceptance consists of two major determinant which are perceived ease of use and perceived usefulness. However, in the context of this study, the researchers emphasize on the relation between dimensions of technology readiness and user's satisfaction along with perceived ease of use. According to Sibona & Choi's study (2012), perceived ease of use has a significant positive relationship towards user's satisfaction. It was supported in Ohk, Park and Hong's study (2015) where it had proved that the greater the perceived ease of use, the greater the user's satisfaction level.

However, this was argued in Schaik, Saltikov and Warren's study (2002), where the past researchers stated that there was no significant positive relationship between perceived ease of use and user's satisfaction. This is because, the four dimensions of technology have a significant impact on individual's perceived ease of use which may direct or indirectly affect the user's satisfaction. Hence, further study are required in order to determine the relation and the hypothesis is formulated as below:

H0: There is no significant positive relationship between perceived ease of use and user's satisfaction of using SMK among the custom officers in Jabatan Kastam Malaysia.

H1: There is a significant positive relationship between perceived ease of use and user's satisfaction of using SMK among the custom officers in Jabatan Kastam Malaysia.

2.5 Conclusion

This chapter has shown the significant relationship between the four independent variables with the user's satisfaction. Each of the independent variables had been discuss in detail and a theoretical framework had been proposed according to the previous study. Four hypothesis also had been developed in order to be tested in the following chapter. This study or research will be continue in examining the research methodology in Chapter 3.

CHAPTER 3: RESEARCH METHODOLOGY

3.0 Introduction

Overall, chapter 3 will be more about the method or research methodology used to determine the relationship between the independent variables and dependent variables. Research methodology is consider as a crucial part of this research or study where it is the process of collecting data and information for the study. Therefore, this chapter will describes and highlight on the research design, data collection methods, sampling design, research instrument, construct measurement, data processing and data analysis.

3.1 Research Design

According to Zikmund, Babin, Carr and Griffin's study (2013), research design refer to the process that include collecting, analyzing and interpreting the data and provide the required information in a more logic and systematic ways. This is because, research design shows the overall plan on how the researchers plan to carry out their project or research. Furthermore, due to having larger population of respondent in this study, quantitative research method will be used in this research instead of qualitative research method. This is due to the reason that quantitative research method was a research method which allowed the researchers to collect and analyze the numerical data from a group people (Sekaran, 2003). Therefore, quantitative research method will be the one used in this research to study the relationship between the dimensions of technology readiness index and perceived ease of use towards the user satisfaction according to the questionnaire the researchers constructed.

Besides, as compared with qualitative research method, quantitative method tend to be more valid, generalized and reliable in the prediction of cause and effect. This is because, in this research, the researchers tend to determine the cause and effect

relationship where a changes in the user satisfaction will causes what changes to the technology readiness index's dimensions and perceived ease of use. Therefore by doing so, the researchers able to determine which variables will be the cause and effect in this study.

3.2 Data Collection Methods

Data collection methods was one of the important process in any research as it was used to obtain and gather the information from our respondents. Generally, these methods included observation method, interview method, and questionnaire which is distributed through electronically. These type of data collection method could be used to collect information to do further investigation (Zikmund et al., 2013). Data collection not only determines where the data come from, it also provide a more accurate data. In this research, the researchers will be using two types of data which are primary data and secondary. For instance, primary data refer to the data that the researchers get from the questionnaire distributed to the respondents whereas, secondary data refer to the data or information obtained through online.

3.2.1 Primary Data

Primary data often known as original data as it is the first hand information obtained by the researchers with the objective to conduct a research from the respondents. Therefore, the data tend to be more reliable and objective and higher validity than secondary data (Hox & Boeije, 2005). However, although primary data is more likely to be better than secondary data, it also consist of several difficulties such as more time consuming and ethical consideration. For this research, the researchers will be using primary data as our main data by distributing the questionnaire through google docs using email to the custom officers in Jabatan Kastam Malaysia. This is because, this method tend to be more effective and faster in getting responses from the custom officers.

3.2.2 Secondary Data

Secondary data refers to the data which had been published or collected by researchers through journal, magazine, books, articles, newspaper, and scholarly materials for the purpose of a particular researches (Sekaran & Bougie, 2012). Most of the information or data were obtained from the online database such as website and online library.

In the progress of doing this research, the researchers had used several magazines or articles in order to increases the knowledge and understanding towards the custom department and Sistem Maklumat Kastam (SMK). Most of the magazines and articles were obtained by using Google search engine. One of the benefits of using secondary data is that the data tend to be easier to access and less costly.

3.3 Sampling Design

A sampling unit is a member of the population that may be selected as representative for sampling. Sampling is a procedure by using entire population with small number of people or objects for conclusions making purpose. A well-planned sampling design is designed to ensure that the resulting data adequately represents the target population and is defended for its intended use. Effective use of time, money and human resources is a key consideration throughout the sampling design process. Good design should meet the needs of research with minimal resources. It also ensures to have best understanding towards whole data explanation.

3.3.1 Target Population

In these research, the target population were focus on the custom officers in Jabatan Kastam Malaysia. However, the exact amount of the target population for Jabatan Kastam Malaysia is unknown. In addition, our sample size will be 106 respondents from the target population. This is because, through the calculation from G power, the amount of sample size needed for our research to be valid and reliable is 92. Therefore, although the target population amount is unknown, our research still valid by having 106 quality respondents which represent our sample size.

3.3.2 Sampling Frame and Sampling Location

Sampling frame refer to the representative which sample is drawn from a complete list of items or population (Elangovan, Elavarsu, Ezhil, Prabu, & Yuvaraj, 2016). Whole Malaysia custom department has been chosen by the researchers as the sampling location for this study whereas the researchers will be having 106 respondents as the sampling frame in this study.

3.3.3 Sampling Elements

The sampling elements in this research or study will be the respondents which had been taking part in this research which are the custom officers of Jabatan Kastam Malaysia. The researchers only had one criteria to be included in the sampling element which is respondents are currently working as custom officers in any custom department across Malaysia. These populations are targeted by us because they have more experience and understanding with the Sistem Maklumat Kastam (SMK) as they were required to use it in their workplace. Thus, they may provide us with more accurate information through the survey instrument.

3.3.4 Sampling Technique

Sampling technique that has been used in this research which are the non-probability sampling and convenience sampling. Non-probability sampling refers to the chance of being choose from the target population's is unknown. Convenience sampling means that the target populations were free to answer all the questionnaire for us. It is a technique where the sample being chosen from the target population on the basis of their accessibility or convenience to the researcher (Ross, 2005). According to Sekaran and Bougie (2012), Convenience sampling provided the best method to collect information because the preliminary information can be obtained quickly and inexpensive way. In our research, this sampling allows us to investigate based on cost and time constraints. Thus, it is much convenient and easy for us to obtain data from quality respondents.

3.3.5 Sample Size

Based on the past researchers, the amount of samples size was deemed to be more than 100 as it provide a more valid result. For example, according to Anderson and Gerbing's (1983) study, they stated that although the sample size of 100 was sufficient for convergence of 3 or more indicators per factor, it still not sufficient for a convergent as the suitable amount of sample size should be 150 or above for SEM. This was supported by past researcher such as Hoelter (1983) where the researcher proposed a critical sample size of 200 and above. Furthermore, Schumacker and Lomax (2004) suggested that the suitable amount of sample size should be around 250 to 500. Therefore, in this study, the researchers asked one of the custom officers who will acted as a representative for the researchers and distributed to 300 respondents evenly across 16 custom departments in Malaysia. However, the researchers only managed to get a total of 107 feedbacks from the custom officers.

Hence, the researchers decided to use G power as the sample size calculation method where it can be used to determine the qualified sample size needed for the study but it's not telling about generalized. Since, the researchers do not have any literature for effect size that can be taken as medium, the researchers needed to know about the power. According to the G power developer, the power needed will be 0.80 and the G power result stated that the minimum amount of sample needed for the study will be 92 whereas, the researchers managed to get 106 samples with one missing data which is sufficient and more than enough to justify the reliability and validity of the study.

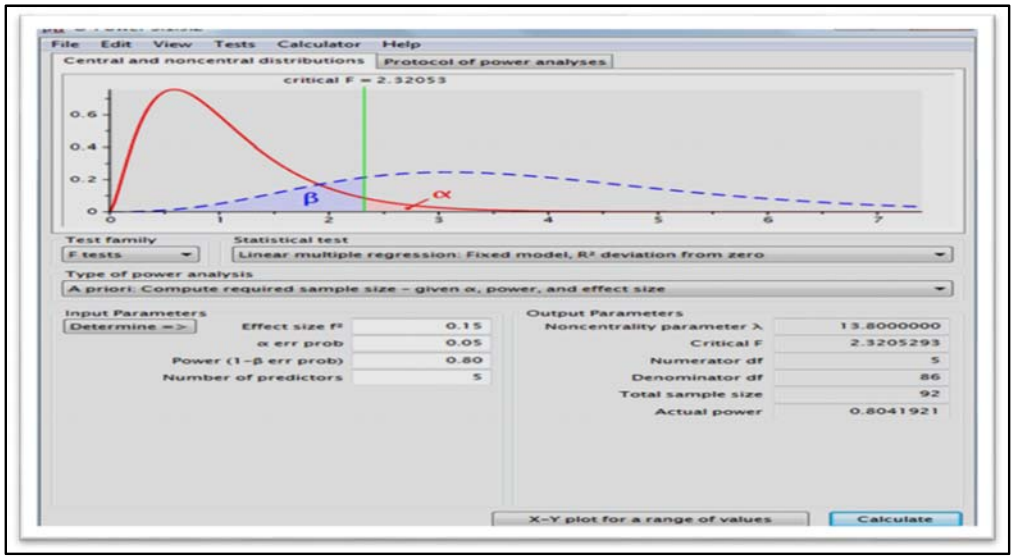


Figure 3.1: G power result

3.4 Research Instrument

Research instrument is a tool that the researchers use to elaborate the process of how the study has been done by us. Questionnaire is used as our research instrument in the research. The questionnaires are set according to the theoretical frameworks

which investigate the relationship between one of the TAM determinant which is perceived ease of use and TRI which are optimism, innovativeness, discomfort and insecurity towards user satisfaction.

3.4.1 Questionnaire Design

The questionnaire that the researchers distributed to the respondent was a combination of previous research paper questionnaire with slight modification on it. The questionnaires were fixed alternative questions as every single question will consist of different choices for the respondents. In order to reduce inconveniences and time usage, the researchers constructed the questionnaire with two different languages which are Malay and English. From the given alternative, the respondents are required to select the most similar or accurate answer to their viewpoint.

This questionnaire consists of four (4) sections which are Section A, B, C and D where Section A refer to the respondents' demographic information such as gender, age, marital status, educational level, position grade, length or period of service and salary. Section B is the combinations of four TRI dimensions which are optimism, innovativeness, discomfort and insecurity. There are total 23 questions which cover the four dimensions of technology readiness index. Section C will be the user satisfaction which consist of 3 questions whereas in Section D, the perceived ease of use will consisted of 7 questions. In section B, C and D, the researchers applied 5 points Likert Scale to measure the respondent answers which ranging from "strongly agree, agree, neutral, disagree and strongly disagree". The questionnaire is composed of closed questions, and the respondent can choose among the alternatives set by the researcher. Closed questionnaires provide a clear meaning that the question you want to express, and that the interviewee can easily and quickly understand and answer. It also makes more meaningful comparison of results and achieves research goals.

Table 3.1

Difference between Original question and Modified question

Independent variables: Technology readiness index (TRI)

Original questions	Modified questions
Optimism	Optimism
OPT1	OPT1
Technology gives people more control over their daily lives.	Sistem maklumat kastam memberikan pengguna lebih banyak kawalan ke atas tugasan seharian mereka. SMK gives people more control over their everyday tasks.

Continued

Original questions	Modified questions
OPT2	OPT2
Products and services that use the newest technologies are much more convenient to use.	Proses pengikraran menggunakan SMK lebih mudah digunakan berbanding dengan pengikraran menggunakan borang. The declaration process becoming easier through the use of SMK than using document.
OPT3	OPT3
I prefer to use the most advanced technology available.	Saya lebih suka menggunakan sistem SMK berbanding dengan cara pengikraran menggunakan borang kastam. I prefer to use SMK system than custom document as a method for declaration.
OPT4	OPT4
I like technologies that allow me to tailor things to fit my own needs.	Saya suka sistem SMK kerana ianya memudahkan saya dengan hanya mengisi maklumat di ruangan yang telah sedia ada di dalam paparan sistem.

	I like SMK system because it make me easier by only needed to fill in the information at the space provided in the display system.
OPT5 Technology makes me more efficient in my occupation.	OPT5 Sistem maklumat kastam meningkatkan tahap kecekapan saya semasa bekerja. SMK makes me more efficient in my occupation.
OPT6 I find new technologies to be mentally stimulating	OPT6 Saya mendapati sistem SMK lebih merangsangkan dari segi mental. I find SMK to be mentally stimulating.

Continued

Original questions	Modified questions
OPT7 Technology give me more freedom of mobilty	OPT7 Dengan adanya SMK, ianya memberikan saya lebih banyak kebebasan untuk bergerak. By having SMK, it gives me more freedom of mobility
OPT8 Learning about technology can be as rewarding as the technology itself.	OPT8 Sistem SMK boleh meningkatkan pungutan hasil bagi JKDM. SMK system can increases the revenue collections for JKDM.
OPT9 I feel confident that technology-based systems will follow through with what I instruct them to do.	OPT9 Dengan menggunakan sistem SMK, saya berasa lebih yakin kerana ianya berfungsi seperti yang saya arahkan. By using SMK, I feel more confident because the systems functions according as I instructed.
Innovativeness	Innovativeness
INN1	INN1

Other people come to me for advice on new technologies.	Orang lain datang kepada saya untuk mendapatkan nasihat mengenai sistem SMK. Other people come to me for advice on SMK system.
INN2 It seems my friends are learning more about the newest technologies than I am	INN2 Rakan sekerja saya lebih arif menggunakan SMK berbanding dengan saya. My colleagues were more skilled in using SMK than me [reverse scored]

Continued

Original questions	Modified questions
INN3 In general, I am among the first in my circle of friends to acquire new technology when it appears.	INN3 Secara umum, saya adalah antara yang pertama dijadikan rujukan mengenai sistem SMK di tempat kerja saya. In general, I was among the first in my workplace that being made as reference to SMK system.
INN4 I can usually figure out new high-tech products and services without help from others.	INN4 Biasanya saya boleh menggunakan sistem SMK tanpa bantuan daripada orang lain. Usually I can figure out how to use SMK system without help from anyone.
INN5 I keep up with the latest technological developments in my areas of interest.	INN5 Saya sentiasa mengikuti pindaan terkini ke atas sistem SMK dari masa ke semasa. I always keep up with the latest version of SMK system from time to time.
INN6	INN6

I enjoy the challenge of figuring out high-tech gadgets.	aya menikmati keseronokan dan cabaran dalam proses menggunakan sistem SMK. I enjoy the challenging process of using SMK system
INN7 I find I have fewer problems than other people in making technology work for me.	INN7 Saya tidak mempunyai masalah dalam menggunakan SMK berbanding dengan rakan sekerja saya yang lain. I find myself to have fewer problems than others in using SMK.

Continued

Original questions	Modified questions
Discomfort	Discomfort
DIS1 Technical support lines are not helpful because they don't explain things in terms I understand.	DIS1 Sistem SMK sangat mudah dan jelas. SMK system was easy and clear.
DIS2 Many new technologies have health or safety risks that are not discovered until after people have used them.	DIS2 Sistem SMK ini memudahkan jabatan untuk mengintip agen penghantaran dari melakukan kesilapan pengikraran barangan. SMK system makes it easy for the departments to spy on the delivery agent mistakes during the declaration of goods.
Insecurity	Insecurity
INS1 I do not consider it safe to provide personal information over the Internet.	INS1 Saya berasa tidak selamat untuk melakukan pengikraran barangan melalui elektronik.

	I do not consider it safe to do any goods declaration online
INS2 I worry that information I make available over the Internet mayb be misused by others.	INS2 Saya bimbang bahawa maklumat pengikraran borang yang dimasukkan di dalam sistem akan sampai ke pihak yang lain bagi kegunaan yang salah. I worry that the document's declaration information that I entered into the system will be send to other party with bad intention.

Continued

Original questions	Modified questions
INS3 I do not feel confident doing business with a place that can only be reached online.	INS3 Saya berasa tidak yakin menjalankan proses pengikraran kastam yang hanya bergantung dengan sistem elektronik sahaja. I am not convince in the custom's declaration process that only depends on electronic system
INS4 Any business transaction you do electronically should be confirmed later with a separate communication.	INS4 Apa-apa transaksi melalui sistem elektronik perlu disahkan kemudian secara bertulis. Any transaction through electronic system need to be confirmed later in black and white or written.
INS5 When I call a business, I prefer talking to a person rather than interacting with an automated system.	INS5 Saya lebih suka berkomunikasi secara bersemuka dengan orang dan bukannya melalui mesin semasa urusan pengikraran barangan.

	I prefer to talk in person rather than through a machine during the declaration of goods.

Source: Parasuraman & Colby (2015)

Dependent variables: User satisfaction

Original questions	Modified questions
User satisfaction	User satisfaction
USER1 Saya berniat untuk menggunakan Sistem maklumat Kastam ditempat kerja saya.	USER1 Saya setuju penggunaan sistem SMK di tempat kerja saya diteruskan. I agree to the continuance use of SMK system in my workplace.
USER2 Saya akan kembali ke SMK ini kerap jika ada urusan kerja	USER2 Saya akan kembali ke SMK secara kerap jika ada proses pengikraran perlu dilakukan. I will frequently come back to SMK if there was a declaration process that needed to be done.
USER3 Saya berniat untuk menerima maklumat atau tugas kerja dengan mengunkan SMK	USER3 Saya berniat untuk menerima maklumat atau tugas kerja dengan menggunakan SMK.

	I intend to receive information or workload through the use of SMK.

Perceived ease of use

Original questions	Modified questions
PEOU1 Learning to use E-government system would be easy for me	PEOU1 Belajar cara penggunaan sistem SMK adalah mudah bagi saya. Learning to use SMK system would be easy for me.
PEOU2 I would find it easy to get better service using E-government system	PEOU2 Saya mendapati bahawa pengikraran menjadi lebih mudah melalui sistem SMK. I found that declaration becoming easier through SMK system
PEOU3 It would be easy for me to become skill full at using E-government system	PEOU3 Ia adalah mudah bagi saya untuk menjadi mahir dalam pengunaan sistem SMK.

	It would be easy for me to become skillful at using SMK system
PEOU4 I would find E-government system easy to use	PEOU4 Saya mendapati bahawa SMK adalah senang digunakan. I would find SMK easy to use.
PEOU5 My interaction with E-learning was clear and understandable.	PEOU5 Interaksi antara saya dengan SMK adalah jelas dah mudah difahami. My interaction with SMK would be clear and understable

Continued

Original questions	Modified questions
PEOU6 I think it is easy to use an NFC mobile payment system.	PEOU6 Prosedur bagi sistem SMK adalah mudah difahami. Procedure for SMK system is easy to understand.
PEOU7 It would be easy for me to find information at E-learning.	PEOU7 Saya berasa mudah untuk mengetahui perjalanan proses pengikraran barangan melalui sistem SMK. I would find it easy to know the course of goods declaration process through SMK system.

Source: Davis (1989), Maslin Masrom (2007), Suki & Ramayah (2010) & Shin & Lee (2014).

Note: *Discomfort (DIS), Innovativeness (INN), Insecurity (INS), Optimism (OPT), Perceived ease of use (PEOU), User satisfaction (USER)*

3.4.2 Pilot study

In fact, a pilot study is an essential initial step in a research and this applies to all types of research studies and the cornerstone of good research (Sekaran & Bougie, 2011; Hazzi & Maldaon, 2015). The purpose of the pilot study was to examine the feasibility of an approach that is intended to be used in a larger scale study. A pilot study was conducted by the researchers with a custom officer representative who had distributed the questionnaire to 30 custom officers before carry out the actual survey in Jabatan Kastam Malaysia. After the custom officers checked for the suitability of the questionnaire, the researchers then pass the questions to the custom officer who will act as a representative and help the researchers in distributing the questionnaires to other officers. This meant that, the researchers already had a feedback session with the 30 custom officers and having a reliability level of more than 80%. Pilot study was consider as a vital part because the researchers had been using it to identify the problem. Not only that, pilot study also was suitable for accuracy, reliability, and validity of the data. Following the analysis of pilot study data, unclear words or vague questions were deleted or rephrased. Questions in the questionnaire also had been modified according to the suggestion of custom officer so that it can be understood by others officers. In this research, the researchers also had used back to back translation when designing the questions so that custom officers had a better understanding on the questions. Back to back translation was one of the most widely used techniques in cross-cultural research as it able to maximizes translation, equality questionnaire from English into Malay and reduces the chance of a false positive translation.

3.5 Constructs Measurement

Researchers often do the inappropriate measurement in theirs study with lack of availability or only taken the previously published measures in accordance with existing research methods rather than on the effectiveness (Nielsen, 2014). In this research study, construct measurement as the vital part of element. It ensures the validity of the findings. All scale measurement consist four basic scale levels which is nominal, ordinal, interval and ratio scale. Each of them explains for how to provide more insight of using the scale to develop their current study. The researchers had separated the questions into 4 parts, which are section A, B, C and D. In part A, the researchers collected the respondent's demographic information. In part B, the question that related to the independent variables; and the last part C and D is the question that related to the dependent variable which is user satisfaction and perceived ease of use. The researchers used nominal, ordinal and interval scale in designing our questionnaire.

3.5.1 Origin of Construct

Table 3.2

Sources of Questionnaire's Questions

Variables	**Sources (Adopted from)**	**Number of Item (Original)**	**Number of Items (Modified)**
Optimism	Parasuraman, A. & Colby, C. L. (2015)	12	10
Innovativeness	Parasuraman, A. & Colby, C. L. (2015)	9	7
Discomfort	Parasuraman, A. & Colby, C. L. (2015)	13	9
Insecurity	Parasuraman, A. & Colby, C. L. (2015)	11	9
User satisfaction	Suki, N. M. & Ramayah, T. (2010)	3	3

Perceived ease of use	Masrom, M. (2007) Davis, F. D. (1989) Suki, N. M. & Ramayah, T. (2010)	8	7

Source: Develop from the research

3.5.2 Scale of Measurement

3.5.2.1 Nominal Scale

According to Zikmund (2010), nominal scale is the most basic scale measurement out of four types of scale design. It use to classify and also identified the object's value, and it can classify as a non-metric and qualitative measurement. It was not include any quantitative measure, only a very simple way to assign the categories into the specific group. There are total three questions in part A that used nominal scale, is question 1 (gender),question 2(age) and question 3(status).

1. Gender:
   - □ Male
   - □ Female

Figure 3.2: Example of Nominal Scale

Source: Develop from the research

3.5.2.2 Ordinal Scale

Ordinal scale is one of a scale measurement with ranking, but the value of the ranking could not be classified. It assigned objects, people or places according to their magnitude in a particular order (Khalid, Hilman, & Kumar, 2012). Question 4, 5, 6, and 7 in part A are using ordinal scale. They are the education level, position grade length or period of services and salary in the business. One of the examples is shown below:

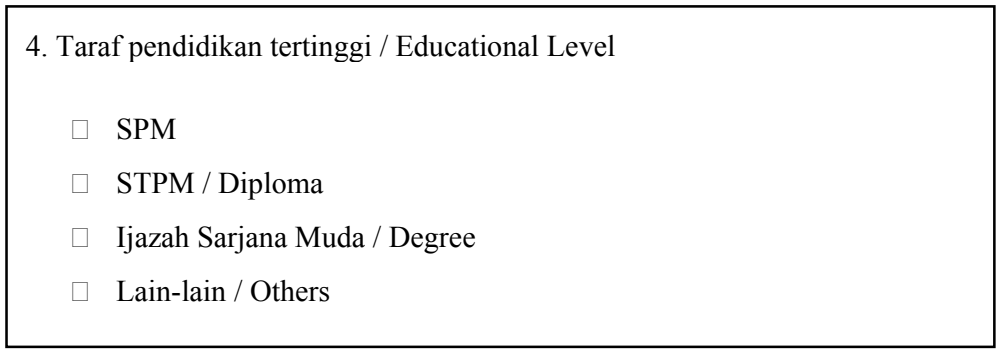


Figure 3.3: Example of Ordinal Scale

Source: Develop from the research

3.5.2.3 Interval Scale

According to Zikmund et al. (2009), interval scale is similar to the ordinal scale. But it also includes the information regarding the differences in the quantities of a concept. The zero in the interval scale known as the non-true zero point that means zero still get meaning. The interval scale is a scale that arranges not only the objects, the size of the object or the place in a particular order, but also the arrangement of the interval. All questions in section B, C and D are using interval scale to design the questions.

Table 3.3

Example of Interval Scale (Section B)

No.	Optimism	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Sistem maklumat kastam memberikan pengguna lebih banyak kawalan ke atas tugasan seharian mereka. (SMK gives people more control over their everyday tasks).	1	2	3	4	5

Source: Develop from the research

Table 3.4

Example of Interval Scale (Section C)

No.	User Satisfaction	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Saya setuju penggunaan sistem SMK di tempat kerja saya diteruskan. (I agree to the continuance use of SMK system in my workplace.)	1	2	3	4	5

Source: Develop from the research

Table 3.5

Example of Interval Scale (Section D)

No.	Perceived Ease of Use	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Belajar cara penggunaan sistem SMK adalah mudah bagi saya. (Learning to use SMK system would be easy for me.)	1	2	3	4	5

Source: Develop from the research

3.6 Data Processing

Data processing is a computer technique that convert data into information way. Data processing is a process of gathering and manipulating data then using the computer database. Data processing includes checking, editing, coding and transcribing as well as specifying any special or unusual treatments of data. In this study, the researchers will be using SPSS and SMART PLS for data processing.

3.6.1 Data Checking

Data checking is the process to determine the accuracy and completeness of the information of data that collected from the sample of population (Zikmund, 2010). This is the first step in data processing because it uses to ensure all the questionnaires given to the respondents are returned. Besides that, in this step also help to check the questionnaire completion level and

make sure there is no omission data. Data checking is reliable, if the data no check it will influence the consistent on the reliability test result.

3.6.2 Data Editing

In order to prevent any bias element and inconsistent in the data editing process, the researchers will to carry out extensive process for checking and correcting purpose. This can happened because, sometimes, the respondents might not understanding what the question ask, which eventually lead to respondents not be able to express their ideas into proper sentence. Therefore, it is important to implement the data and edit it. This was agreed in Waal, Pannekoek and Scholtus's (2011) study, where data editing process was use to improve the quality of the data by detecting and correcting errors encompasses a variety of procedures. Through this step, the data will be more accurate and complete.

3.6.3 Data Coding

According to Sekaran and Bougie (2010), data coding is a process to classify and allocate numbers as well as other symbol to the data edited previously. Every data have coded before key in into the computer becoming data result. After coded, the data processing become more easy and smoothly to conduct. Commonly the researchers had to use the specific numerical symbol or number to represent each of the data.in section A, the following question will be coded as below:

Table 3.6

Data Coding for Demographic Profile

Question No.	**Label**	**Coding**
Q1	Gender	• "Male" - 1 • "Female" - 2
Q2	Age Group	• "21 – 30 years old" - 1 • "31 - 40 years old" - 2 • "41 - 50 years old" - 3 • "51 - 60 years old" - 4
Q3	Marital Status	• "Single" - 1 • "Married" - 2 • "Others" - 3
Q4	Educational Level	• "SPM" - 1 • "STPM / Diploma" - 2 • "Ijazah Sarjana Muda / Degree" - 3 • "Lain-lain / Others" - 4
Q5	Position Grade	• "WK19 – WK26" - 1 • "WK27 – WK32" - 2 • "WK41 – WK44" - 3 • "WK48 – WK52" - 4
Q6	Length or Period of services	• "1 – 5 Tahun / years" - 1 • "6 – 10 Tahun / years" - 2 • "11 – 15 Tahun / years" - 3 • "16 Tahun ke atas / above" - 4
Q7	Salary	• "RM 900 – RM1500" - 1 • "RM 1501 – RM2500" - 2 • "RM 2501 – RM3500" - 3 • "RM 3501 – RM4500" - 4 • "RM4501 Ke atas / above" - 5

For section B to section D, each question is asked in coded as below method:

Table 3.7

Example of data coding for Section B, C and D questions

Question	Coding
3. Secara umum, saya adalah antara yang pertama dijadikan rujukan mengenai sistem SMK di tempat kerja saya. (In general, I was among the first in my workplace that being made as reference to SMK system.)	• "Strongly Disagree" is coded as 1 • "Disagree" is coded as 2 • "Neutral" is coded as 3 • "Agree" is coded as 4 • "Strongly Agree" is coded as 5

3.6.4 Data Transcribing

Data transcribing is the last steps in data processing. The researchers will be using the SMART PLS to convert information into data mode. The quality of transcription can impact to the analysis quality (Stuckey, 2014). Even it was time consuming but this step cannot be cut down, because the researchers had to use this result for data analysis purposes.

3.7 Data Analysis

Data analysis is the method use to interpret the data result. It also as the process of bringing order, structure and meaning to the mass of collected data.

3.7.1 Descriptive Analysis

Descriptive analysis is the method used to describe the basic information features of the data in the study. It always provides a very simple summary about the sample data and measurement (Trochim, 2006). With descriptive analysis you are simply describe what the data show off. In this study, the researchers will be using the descriptive analysis to explain the questions in section A such as respondent's demographic information. There are three methods that can be use to describe the collected data, the researchers organizing and summarizing the data in an informative way which are frequency, percentage, and average. In order to make data easy to understand, the data collected will be presented in the form of pie chart which provided under Appendix N.

3.7.2 Scale Measurement

3.7.2.1 Reliability Test

According to Sekaran and Bougie (2012), reliability indicates how stable and consistent the instruments measure the concept of the research. Reliability test is conducted based on the data collected from the study. The degree of the consistency over time and accuracy representation of the total population for a study and is considered as reliable if a similar results of the study can be reproduced by using a similar methodology (Golafshani, 2003). In this research, in order to text the result reliability, the researchers decided to use G power to determine the accuracy of the result. The result of the G power stated that amount of samples needed to conduct the survey is 92 and the researchers managed to get 106 samples which is already more than enough to justify the result reliability.

3.8 Conclusion

In conclusion, this chapter described on how the research methodology had been conducted by using questionnaire, data collection methods, sampling designs, research instrument, construct measurement. In this chapter, the researchers will be using the SMART PLS 3.2.6 and SPSS for data running, data analysis according to the step constructed in the PLS. The researchers also using the G-power to get valid and corresponding number of sample size that the researchers needs in the research. Furthermore, a series of data interpreting will be carry out in detail in chapter 4.

Chapter 4.0 Research Result

4.0 Introduction

For the chapter before, the researchers had successfully identified those method that need to be used to carry out this research study, ways to identify the sample size and successfully prepared the questionnaires for the research study. At the same time, the researchers also had carried out the data processing and the data collection investigation steps. Meanwhile, in Chapter 4, the researchers will carry out an examination of the data that had been collected and generated in the previous chapter by assigning some difference patterns and analysis toward the result. Which the output of the analysis will always interrelated to the research hypothesis and research question which stated in first and second chapter. Hence, in this chapter, the researchers will indicated the descriptive analysis of the data, Rating Outer Model and etc. Followed by the discussion on the PLS regressions that had been used to assists the researchers in testing the research model and hypothesis that had made in the first chapter will be explained in deep.

4.1 Preliminary Analysis

In the previous chapter, the researchers had done processes the data, and it is been checked for missing data, normality assumption multicollinearity and outliers. The coming section will talk about the results for the common method and also the non-responsive bias for this study.

4.1.1 Data Processing

Data processing is one of a step that used to delineate the data that had prepare. In data processing process it contain some necessary steps such as, data checking, data editing, data coding, and data transcribing. The special data will also been specifying in the data processing step before the researchers analyze on it.

The first step in the data processing is the have a data checking, the data checking step plays an important role in this study, which help researcher to make sure that all their questionnaire are fully answered by the respondents and also double check on the data obtained from the questionnaires are complete and without missing answer or data.

According to Zikmund, Babin, Carr, and Griffin (2013), the second step in the data processing is data editing, which throughout this process, in order to make the information from the questionnaire more consistency and legibility, the researchers were required to do some scanning and editing the information contained in the questionnaire. In order to let the questionnaire become more perfect, consistent and free from mistake, the researcher have the right to carry out some modification on the data when they discover some answers or information are lacking.

Based on Field (2013), Due to certain reason such as lengthy questionnaire or uninteresting questionnaire, respondents may accidentally missed some of the question when they answering the questions. Some of the participants are not willing to answer the question that they deem may affect them. Besides, the author also recommended three ways of dealing with missing data:

1. Listwise deletion: when there is a data missing, researcher may withdraw the whole record from the study.

2. Pairwise removal: instead of removing the data, pairwise removal can remain all the available data by ignoring the missing value.

3. Replace the missing score using an average score: calculate the average score for the variable and the missing data will be replaced by the average score.

In this research study, the researchers had use the listwise approach to deal with the missing data. The initial sample size obtained from the Google Doc are total 107 sets. After processed the data, the researchers found that 1 set of the questionnaire contain missing data so it remain only 106 sets.

The third step of the data processing is data coding which help to determining and categorize every information into both character symbol or numeric score (Zikmund, Babin, Carr & Griffin, 2013).

4.1.2 Outlier detection

Anomaly detection also known as outlier detection, where it is a value for the supplementary data set which are unlike usual and did not define the characteristics of the data (Field, 2013). In statistics, an outlier can be explained as a point of observation which is not closely related to any other observations. Due to the errors in experiment or inconsistency of the measurement that had been used, an outlier may occured. A weight distribution tails of a population or either one of the measurement errors will be shown when outliners occur. Thus, bias can occurred due to the outliers. (Hair, 2014; Tabachnick & Fidell 2014). Hence, before the SEM analysis, the researcher should remove or recoded the outliers first.

In order to determine the Outliers, the researchers had used multivariate (Mahalanobis D2 distance) and also univariate detections such as histograms, box-plots and standardised Z score. For univariate detection, in addition to examining the box-plots and histograms each of the variables, the researchers also done to examined the standardised (z) score. According to Hair (2014). A large sample size, it only required a $z > 4$ in order for the evidence of an extreme observation.

Next, the researchers will apply the multivariate detection to assist in continue examined of the data. The researchers also will use the SPSS Regressions that a case number will be given to serve as the dependent variable, for those remaining non-demographic measure are categories as independent variable in order for us to obtain the Mahalanobis D2 distances. A potential multivariate outliners will come with a higher D2 values (>3.5) (Hair, 2014). Based on the data we received, there is no outliner was detected, as refer to table 4.2 below. All 106 set of data was included for our analysis.

4.1.3 Normality analysis

Based on Field (2013), In order to explore the assumption for the data normality, the researchers will adopt the Shapiro-Wilk and Kolmogorov-Smirnov test. When the outcome of this test is not significant ($p > 0.05$) then it indicated that the distribution is normal and if the outcome is significant ($p < 0.05$) means that the distribution of the question is not normal. On the other hand, with a sample size that is large it can guide us to important judgements in the second test signal as an alternative for the normal distribution. Therefore, in order for us to determining on the normal

distribution, the skewness and kurtosis statistics has been used. If the outcome of the Kolmogorov-Smirnov test are significant ($p < 0.05$) so it pointed out that the question may not be normal. At the same time, the researchers also carried out the statistical skewness and kurtosis where the researchers had included the statistical results of skewness and kurtosis in the Appendix K. As refer to the table in the appendix, in pointed out that most of the question is normal, but there is still some of them is abnormal. But if the distribution is not normal, it did not affect our analysis if we used PLS base SEM (Weston, Paual, & Gore, 2006). Since, the unusual distribution can be study by using the SEM-PLS, so changes on the data fulfill the assumption of normality were not required.

4.1.4 Multicollinearity analysis

As to perform the multicollinearity analysis, the researchers had use the IBM SPSS Statistics software to calculate the correlation matric for all the variable, in order for us to obtain the Variance Inflation Factor (VIF) values. The reason to use this software is because the Smart PLS has not providing us the VIF value. The researchers are necessary to have a VIF value that is 5 or lower so that the collinearity problem can be avoided because this is the rule of thumb of the Variance Inflation Factor (VIF) values (Hair, Ringle, & Sarstedt, 2011). So, the outcome indicated that there was insufficient evidence of multicollinearity (refer to the table 4.3).

4.1.5 Common Method Bias

As refer to Podsakoff, MacKenzie, Lee, and Podsakoff (2003), during the time researcher conduct their studies, the participants provided the information related to the criterion variables and the two predictors, it may happen the methods similar bias. In order to reduce the bias, it is necessary for us to keep the respondent's responses unidentified and convince them by letting them know that there is no standard answers. This is to let them answer the question more freely, and the answer they provided would be as honest as they can. (Dinev and Hart, 2006; Podsakoff et al 2003.)

The researchers must let all the respondents aware that the answers they provided will be a private and confidential. This will motivate the respondents to participate and provide their unbiased and meaningful answer to us. The private and confidential information will be written in the cover of the questionnaire before distributing the questionnaire to the respondents. Furthermore, Harman single factor test will be carried out after the researchers had collected the data, mainly because this test will assists us in determining some of the potential effects of the usual methods of weight (Harman 1967). It's also help us to determine the same variance in the design research methods. (Malhotra et al. 2006). This test also help us indicated whether a single factor will be seem from the analysis of the factors. When one common factor is occurs, this means there are majority of the covariance of dependent as well as independent variables (Aulakh & Kotabe, 1997; Pavlou & Gefen, 2005; Podsakoff & Organ 1986).

To have a strong evidence for the common method bias, the analysis that the researchers perform must use a single factor that obtain from the large amount of factors to clarify the variance in the data. Which the common

method bias has been supported with a strong evidence. As a hypothesis, the researchers inserted all the variables for a model to run an exploratory factor analysis. Meanwhile, the unrotated factors helps the researchers to define the amount of factors that must be included to the differences in variables. Based on the outcomes, it indicated that the unrotated factor analysis was 80.25% of the total variance. (See Appendix L). In short, the researchers can defined that the results was not influenced by the responses of the respondents.

4.1.6 Non Responsive Bias

Non-response bias can be considered as one of the problems that the researchers commonly face during the time the researchers performed the survey methodology (Armstrong & Overton, 1977). The validity of the survey could be threaten if our survey contained non-response bias (Cook, Dickinson, & Eccles, 2009). During this research, the researchers had used the method of assimilating between those early respondents and those late respondents on those important demographic variables and reaction on the key constructs to check on the non-response bias which this method is created by the Armstrong and Overton (1977).

For the analysis, all the respondents were obtained from the Google Doc, and the respondents were required to answer the questionnaire via internet. Thus, 2 weeks were used by the researchers in order to obtain the data of all the respondents from the Google Doc and there was no non-responsive bias in our study.

4.1.7 Analysis Demographic profile respondents.

Table 4.1 will indicated the detailed information of all the custom officer's demographics profile who participated in the data collection process.

Table 4.1

Respondent's demographic profile for Jabatan Kastam Malaysia.

		Frequency	Percent
	Male	44	41.5
	Female	62	58.5
	Total	106	100.0
	21-30	32	30.2
	31-40	46	43.4
	41-50	22	20.8
	51-60	6	5.7
	Total	106	100.0
	Single	30	28.3
	Married	72	67.9
	Others	4	3.8
	Total	106	100.0
	SPM	78	73.6
	STPM / Diploma	10	9.4
	Degree	16	15.1

		Frequency	Percent
	Male	44	41.5
	Female	62	58.5
	Total	106	100.0
	Others	2	1.9
	Total	106	100.0

Continued

		Frequency	Percent
	WK19-WK26	82	77.4
	WK27-WK32	8	7.5
	WK41-WK44	14	13.2
	WK48-WK52	2	1.9
	Total	106	100.0
	1 year- 5 years	14	13.2
	6 years- 10 years	26	24.5
	11 years- 15 years	14	13.2
	16 years and above	52	49.1
	Total	106	100.0
	RM900-RM1500	2	1.9
	RM1501-RM2500	30	28.3
	RM2501-RM2500	14	13.2
	RM3501-RM4500	48	45.3
	RM4501 and above	12	11.3
	Total	106	100.0

Source: Generate from SPSS version.

Based on the table 4.1 it clearly shown the gender of the participants in the survey from the Jabatan Kastam Malaysia. In total, there are total 106 respondents who participate in this survey, which including of 44 male participants (41.5%) and 62 female participants (58.5%). Next, is about the respondent's marital status for the Jabatan Kastam Malaysia. Majority of the respondents are married which were up to 72 (67.9%) out of 106 respondents, and the remaining (31.8%) were those 30 respondents who were single and 4 respondents who are maybe they are already engaged or etc.

In the Educational level aspect, Over half of the respondents which was 78 (73.6%) of the respondents were only have the qualifications of SPM maybe because they have a longer working experience which they had joined Jabatan Kastam since they are young. There were 16 respondents (15.1%) who have a bachelor's degrees and others 10 respondents (9.4%) having the qualifications of STPM/ Diploma. The remaining 2 respondents (1.9%) who chosen others qualification such as UPSR, or PMR. About the position grade, Most of the respondents were fall into the categories of the lowest position grade which was WK19-WK26 which consists of 82 respondents (77.4%) and followed by the next position which is WK27-WK32 and its consists of 8 respondents (7.5%) and the second highest position WK41-WK44 which consists of 14 respondents (13.2%) and lastly the highest position consists of 2 respondents (1.9%).

Related to the length of period of services, majority of the respondents had worked more than 16 years which was 52 respondents (49.1%), followed by 26 respondents (24.5%) which were in the range of 6-10 years, and the remaining 1-6 years and 11-15years it both give an equal amount of respondents which is 14 (13.2%). Lastly, about the salary range, because it is a government sector, most of the respondents are fail in the salary range of RM3501-RM4500 which have total 48 respondents (45.3%) and followed by 30 respondents (28.3%) who fall in the salary range of RM1501-RM2500,

salary between RM2501-RM3500 and RM4500 above are 14 (13.2%) and 12 (11.3%) respondents and at last, there are only 2 respondents (1.9%) who are in the salary range between RM900-RM1500.

All the above, demographic profile, the researchers already prepare the pie chart and histogram in order to assist to have a clear view of the demographic profile for the respondents. (See Appendix N)

4.1.8 Analysis descriptive statistics of study variables

Table 4.2

Summary of descriptive statistics of the study variables

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Optimism	106	2.10	5.00	3.7811	.79272
Innovativeness	106	2.00	5.00	3.8208	.83789
Discomfort	106	2.56	5.00	3.5482	.48281
Insecurity	106	2.11	5.00	3.1583	.58993
User satisfaction	106	1.33	5.00	3.6981	.88554
Perceived ease of use	106	2.00	5.00	3.9682	.78434
Valid N (listwise)	106				

Table 4.2 indicated the standard deviation and the mean for each of the variable in our study. For the dependent variable, as referring to the mean for the Optimism among the custom officers, there are 75.6% of the custom officers are optimism toward the SMK, while their standard deviation is 0.79. While for the Innovativeness among the custom officers toward the SMK there is 76.4% of the custom officers are innovativeness, and the standard deviation is the 0.84.

In additional, the level of discomfort of the custom officers toward the SMK is 71% which is the second lowest among the others variable, meanwhile, the standard deviation for the discomfort is 0.48. For the last dependent variable, indicate the insecurity level of the custom officers is the lowest of 63.16% and the standard deviation is 0.59.

While for the moderator of our study, perceived ease of use among the custom officers toward is SMK is 79.36% and the standard deviation is 0.78 and lastly for the user satisfaction, there is only 73.96% of the custom officers feel satisfaction toward the SMK system, and the standard deviation it gave is 0.89.

4.2 Rating Outer Model (Measurement Model)

In this study, the researchers had used the Smart PLS version 3.2.6 to do the testing on our hypothesis. The PLS is another method that to be used to analysis on the SEM based variance. By using this it will benefited with assumptions can be eliminated and the relatively small sample size can be estimated as well. The software that had been used in this research is Smart PLS Program Version 3.2.6, which this program are useful to estimate the structural equations with the basis of the variance. This software can be easily obtained through the internet. There are 3 important criteria that the researchers must know before considering the outer model which are convergent validity, composite discriminant validity as well as reliability (Ghozali, 2008; Hair, Hult, Ringle, & Sarstedt 2016). Full depictions of the SEM to evaluate outer Smart PLS model as shown as below.

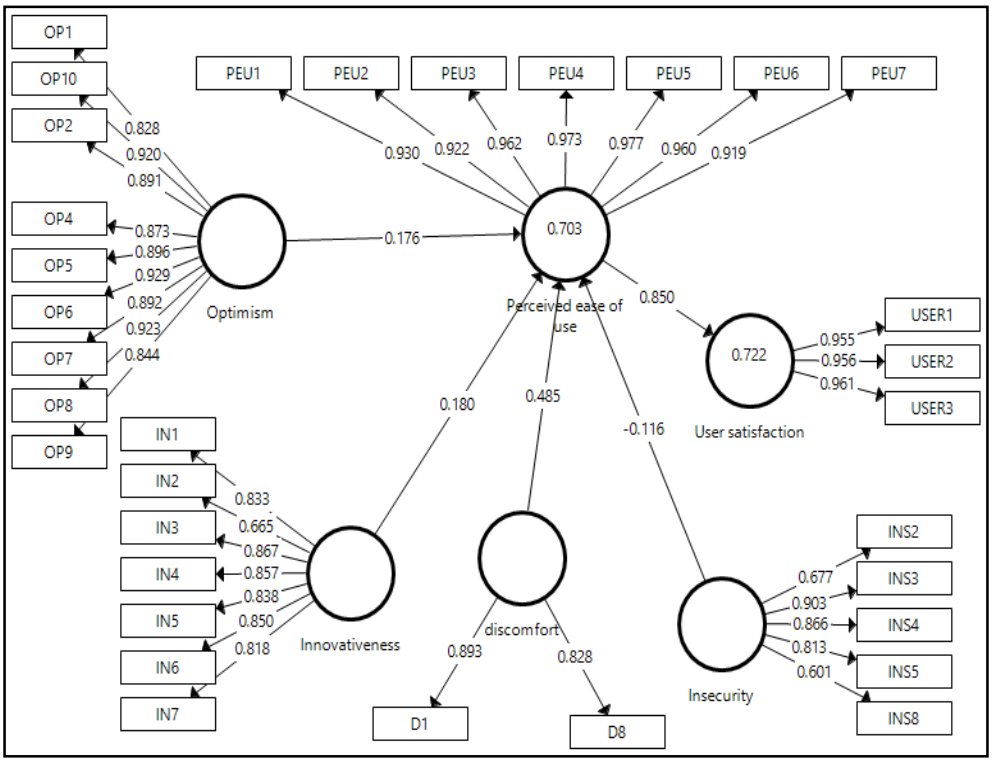


Figure 4.1 Path coefficients among the Independent variables, and dependent variable.

Note: *Discomfort (D), Innovativeness (IN), Insecurity (INS), Optimism (OP), Perceived ease of use (PEU), User satisfaction (USER)*

The Figure 4.1 indicated the factors that will affect the user satisfaction of the SMK among the employee in the Jabatan Kastam Malaysia which are optimism, innovativeness, discomfort and insecurity which are measured by few indicators on each. OP1, OP2, OP4, OP5, OP6, OP7, OP8, OP9, OP10 are the indicators for optimism. IN1, IN2, IN3, IN4, IN5, IN6, IN7 are the indicators for innovativeness. D1, D8 are the indicators for discomfort. Lastly, INS2, INS3, INS4, INS5, INS8, are the indicators for insecurity. Hence, perceived ease of use is measured by seven indicators which are PEU1, PEU2, PEU3, PEU4, PEU5, PEU6, and PEU7. User satisfaction is measured by 3 indicators, namely USER1, USER2, and USER3. The

relationships of those hypothesis are pointed by arrows between the variable, which the perceived ease of use act as the moderator for this study. Throughout this analysis, the researchers had deleted 12 indicators in order to make our model fit which are OP3, D2, D3, D4, D5, D6, D7, D9, INS1, INS6, INS7, and INS9. Based on Hair et al. (2016), In order to get a fit model, 25% of the indicators can be remove.

4.3 Measurement Model

Before the researchers run the hypothesis test, it is necessary to have a checking on the measurement model. This can help to ensure that our model is fit by having this assessing on the measurement model accurateness. The validity of the measurement is the reason why we need the measurement model analysis, which this will directly affect the underlying theoretical constructs.

4.3.1 Testing Outer Model (Measurement Model)

The Outer Assessment Model (Measurement Models) consists three criteria which is Convergent Validity, Discriminant Validity and Composite Reliability. (Ghozali, 2008; Hair et al., 2016). From the figure 4.1, it shows the full structural equation model to assess outer Smart PLS models by using version 3.2.6.

Table 4.3

Reliability of Constructs

Constructs	**Items**	**Loadings**	**CR**	**AVE**	**VIF**
Discomfort	D1	0.893	0.852	0.742	2.661
	D8	0.828			
Innovativeness	IN1	0.833	0.935	0.674	2.363
	IN2	0.665			
	IN3	0.867			
	IN4	0.857			
	IN5	0.838			
	IN6	0.85			
	IN7	0.818			
Insecurity	INS2	0.677	0.884	0.609	1.498
	INS3	0.903			
	INS4	0.866			
	INS5	0.813			
	INS8	0.601			
Optimism	OP1	0.828	0.971	0.79	2.275
	OP2	0.891			
	OP4	0.873			
	OP5	0.896			
	OP6	0.929			
	OP7	0.892			
	OP8	0.923			
	OP9	0.844			
	OP10	0.92			
Perceived	PEU1	0.93	0.985	0.901	1
ease of use	PEU2	0.922			
	PEU3	0.962			
	PEU4	0.973			

	PEU5	0.977			
	PEU6	0.96			

Continued

Constructs	**Items**	**Loadings**	**CR**	**AVE**	**VIF**
	PEU7	0.919			
User	USER1	0.955	0.97	0.916	
satisfaction	USER2	0.956			
	USER3	0.961			

Source: Data Processing Smart PLS (2017)

Note: *Discomfort (D), Innovativeness (IN), Insecurity (INS), Optimism (OP), Perceived ease of use (PEU), User satisfaction (USER)*

The outer models variables is discomfort, innovativeness, insecurity, optimism, perceived ease of use can be seen as in the Table 4.3. In the entire construct indicators, the value convergent validity must with loading factor more than 0.5. In figure 4.1, we can concluded that the all data is valid and fit. In Table 4.3, the loading results for all the variables were more than 0.6 which mean that the all variables in this research were fully reliable.

In order to demonstrate the correlation between the variable, we had used the divergent validity test, if the cross correlation values loading latent variables greater than the correlation on the other latent variables, the cross correlation value loading all indicators used in forming latent variables declared unacceptable. Table 4.3 shows that the loading cross correlation values respectively the variables.

Table 4.4

Cross Loading

Item	IN	INS	OP	PEU	USER	D
D1	0.786	-0.508	0.685	0.76	0.604	**0.893**
D8	0.409	-0.436	0.504	0.609	0.584	**0.828**
IN1	**0.833**	-0.387	0.688	0.611	0.603	0.606
IN2	**0.665**	-0.22	0.528	0.364	0.348	0.412
IN3	**0.867**	-0.385	0.618	0.524	0.561	0.484
IN4	**0.857**	-0.414	0.523	0.646	0.516	0.623
IN5	**0.838**	-0.377	0.408	0.601	0.473	0.593
IN6	**0.85**	-0.522	0.678	0.666	0.656	0.738
IN7	**0.818**	-0.422	0.447	0.549	0.473	0.584
INS2	-0.361	**0.677**	-0.422	-0.296	-0.368	-0.32
INS3	-0.4	**0.903**	-0.442	-0.525	-0.565	-0.497
INS4	-0.367	**0.866**	-0.4	-0.467	-0.454	-0.509
INS5	-0.4	**0.813**	-0.371	-0.455	-0.455	-0.407
INS8	-0.376	**0.601**	-0.297	-0.385	-0.352	-0.379
OP1	0.527	-0.319	**0.828**	0.588	0.555	0.614
OP10	0.633	-0.44	**0.92**	0.601	0.652	0.579
OP2	0.57	-0.378	**0.891**	0.626	0.642	0.569
OP4	0.581	-0.534	**0.873**	0.591	0.635	0.685
OP5	0.535	-0.384	**0.896**	0.619	0.579	0.662
OP6	0.635	-0.412	**0.929**	0.625	0.674	0.629
OP7	0.667	-0.433	**0.892**	0.616	0.7	0.601
OP8	0.59	-0.534	**0.923**	0.644	0.684	0.642
OP9	0.667	-0.498	**0.844**	0.64	0.73	0.614
PEU1	0.681	-0.613	0.682	**0.93**	0.867	0.744
PEU2	0.6	-0.58	0.692	**0.922**	0.795	0.762
PEU3	0.663	-0.491	0.612	**0.962**	0.812	0.768

PEU4	0.662	-0.51	0.65	**0.973**	0.793	0.748
PEU5	0.669	-0.514	0.628	**0.977**	0.796	0.769

Continued

Item	IN	INS	OP	PEU	USER	D
PEU6	0.695	-0.521	0.657	**0.96**	0.809	0.779
PEU7	0.698	-0.469	0.692	**0.919**	0.771	0.754
USER1	0.644	-0.548	0.731	0.857	**0.955**	0.741
USER2	0.588	-0.503	0.706	0.794	**0.956**	0.606
USER3	0.609	-0.589	0.664	0.786	**0.961**	0.624

Source: Data Processing Smart PLS (2017)

Note: *Discomfort (D), Innovativeness (IN), Insecurity (INS), Optimism (OP), Perceived ease of use (PEU), User satisfaction (USER)*

Table 4.5

Construct Correlations (Diagonal Elements are Square Roots of the AVE)

	IN	INS	OP	PEU	USER	D
IN	**0.821**					
INS	-0.485	**0.78**				
OP	0.676	-0.492	**0.889**			
PEU	0.703	-0.558	0.695	**0.949**		
USER	0.642	-0.571	0.733	0.85	**0.957**	
D	0.715	-0.55	0.699	0.801	0.689	**0.861**

Source: Data Processing Smart PLS (2017)

Note: *Discomfort (D), Innovativeness (IN), Insecurity (INS), Optimism (OP), Perceived ease of use (PEU), User satisfaction (USER)*

As refer to the table 4.5 clearly indicated the square root AVE value for individual construct is more than 0.5 so the divergent validity was all been achieved. Besides, the table also pointed out that all variable also have a

greater value as compare to other constructs of their square root AVE value. As conclusion, the criteria for the Partial Test Least Square Models with Outer size (Measurement Model) had all been met in this study.

4.3.2 Testing Inner Model

Table 4.6

Inner Model Results by size of R-Square

Variable	R-Squared Included	R-squared Excluded	f-squared	Effect size
User satisfaction	0.723	0.703	0.0722	**Small**

Source: Data Processing Smart PLS (2017)

R Square used to identify the coefficient for determination in the dependent constructs. Based on Chin (1998), for a strong R square we need 0.67, while for moderate we need 0.33 and for a weak R square we need 0.19. But, according to Hair et al. (2016), the R square of 0.75 is very strong, while 0.5 is strong, and 0.25 is weak. Based on these study, the R square for our study is strong enough (0.723).

Yet, the researchers still have to know on the F Square in order to know about the power of this model. The purpose to have this Effect Size (f square) is to help use to determine a good model. After the researchers calculated the excluded and included R square, the researchers will know how big is the effect size (see Appendix U for the included and excluded R square).

By referring to the table 4.6, the User satisfaction has a small effect size, In short, the researchers knew that the model had meet the requirement of the Inner Model by referred to the measurement requirement for the Inner Model.

4.4 Structural Model

The output for the hypothesis testing with the bootstrapping was obtained by using the Smart PLS version 3.2.6 software. Figure 4.2 as shown as below is the test result the researchers obtained.

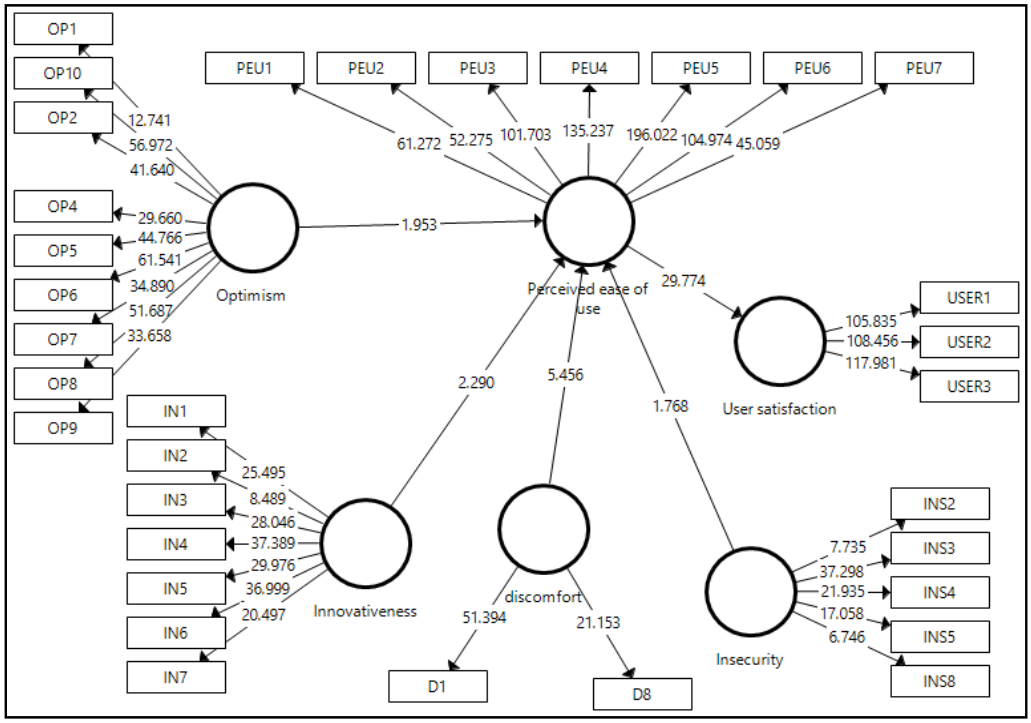


Figure 4.2 T-value among the dependent variables and independent variables.

4.4.1 T-Statistic

Table 4.7

Path Coefficients for Hypothesis Testing between Optimism, Innovativeness, Insecurity, Discomfort, Perceived ease of use, and User satisfaction.

Hypothesis	Std Beta	Std error	T Value	LL	UL	Decision
Innovativeness -> Perceived ease of use	0.18	0.079	2.29	0.053	0.367	Supported
Insecurity -> Perceived ease of use	-0.116	0.066	1.768	-0.28	-0.02	Supported
Optimism -> Perceived ease of use	0.176	0.09	1.953	-0.023	0.336	Not supported
Perceived ease of use -> User satisfaction	0.85	0.029	29.774	0.789	0.901	Supported
Discomfort -> Perceived ease of use	0.485	0.089	5.456	0.292	0.641	Supported

Table 4.7 indicates all the hypothesis listed down from H1 to H5, and in the table it also contain the T-statistics value for each hypothesis. When the hypothesis is significant, the t-value is more than 1.645 ($p<0.05$), t-value more than 2:33 ($p <0.01$) for 1-tail test, t-value more than 1.96 ($p<0.05$) or t-value more than 2:58 ($p <0.01$). From Table 4.7 shows that one of the hypothesis, Optimism -> Perceived ease of use is insignificant because the lower limit is in a negative value while the upper limit for the hypothesis is

in a positive value, so the hypothesis had become insignificant. Meanwhile, for all the remaining hypothesis were supported.

4.5 Conclusion

In this chapter, different types of test and analysis have carried out in order for the researchers to have an observation on the collected data for the questionnaire such as Normality analysis and Multicollinearity analysis. As the outcome for this chapter, the researchers had identified that there was only 1 hypothesis or variable which was not supported in this study which was optimism. However, for the remaining variables, the result shown that they were all having a significant positive and negative relationship. Therefore, the outcome of this chapter which is the analysis result and interpretations of the result will be use in the chapter to have a further discussion in the next chapter along with the recommendation for the future study and determining the impact of this study nad develop a conclusion in total for these research study.

CHAPTER 5: DISCUSSION AND CONCLUSION

5.0 Introduction

In this chapter, the researchers will draw a conclusion and discussion for the research project that had been conducted. At first, the researchers made a summarization on the demographic profile statistic, scale measurement, central tendencies and inferential analysis in this chapter. There are several limitations the researchers had found while doing this research. The researchers also had provided the recommendations for the future study with similar methodology and topic.

5.1 Summary of Statistical Analysis

5.1.1 Descriptive Analysis

5.1.1.1 Summary of Study Variables

Table 5.1

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Optimism	106	2.10	5.00	3.7811	.79272
Innovativeness	106	2.00	5.00	3.8208	.83789
Discomfort	106	2.56	5.00	3.5482	.48281
Insecurity	106	2.11	5.00	3.1583	.58993
User satisfaction	106	1.33	5.00	3.6981	.88554
Perceived ease of use	106	2.00	5.00	3.9682	.78434
Valid N (listwise)	106				

Based from the table 5.1, for both optimism and innovativeness level of the custom officers towards the SMK system was 76%. Therefore, Jabatan Kastam Malaysia still have 24% to improve in their officers' optimism and innovativeness level. For user's discomfort level, the system achieved 71% which clearly shown that Jabatan Kastam Malaysia must improve their system in order to decreases the officers discomfort level when using the systems. This may be due to the reasons that the officers perceived they were being pushed to works even at home and caused the feeling of discomfort to emerge. Furthermore, as seen in the table, the security level for SMK is good where the custom officers have 63% of insecurity towards the system. In addition, although the system able to provide the custom officers with 74%

satisfaction, it still has 26% to improve in order to achieve full satisfaction. Lastly, referring to the table, the officers perceived that the SMK systems was easy to use where it was having 79%. However, the researchers cannot deny that the system still got 21% to improve in order to be perceived as easy to use by all the custom officers.

5.1.1.2 Summary of Demographic Profiles

The demographic profile from this research shows the 106 respondents, majority of them are female respondents, which are 58.5% and male respondents with 44%. For the marital status, majority of the respondents had married, which are 67.9%, while 28.3% respondents are single and 3.8% for others. Next, from the result of our research, most of the respondents are SPM holders which are 73.6%, followed by Degree holders 15.1%. The other respondents are STPM/Diploma holder with 9.4% and lastly the other respondents are 1.9%.

Besides, in the position grade, most of the respondents are in the lowest position grade which is WK19-WK26, 77.4%., then followed with the second highest position which is WK41-WK44, 13.2%. The result shows there is 7.5% respondents are in the position WK27-WK32, and lastly 1.9% respondents are in position WK48-WK52.

In addition, based on our research, majority of the respondents are work for more than 16 years, which is consist of 49.1%, followed by the respondents who work between 6-10 years, which is 24.5%, and both the respondents who work between 1-5 years and 11-15 years have a same percentage which is 13.2%. Finally, for the salary range, most of the respondents receive the salary between RM3501-RM4500 which is 45.3%, followed by 28.3% of respondents receive salary between RM1501-RM2500, 13.2% respondents receive salary RM4500 and above and the least salary range is between RM900-RM1500 which is 1.9% respondents.

5.2 Discussion of Major Finding

Table 5.2

Summary of Hypothesis Results

Hypothesis	Std Beta	Std error	T Value	LL	UL	Decision
Optimism -> Perceived ease of use	0.176	0.09	1.953	-0.023	0.336	Not supported
Innovativeness -> Perceived ease of use	0.18	0.079	2.29	0.053	0.367	Supported
Discomfort -> Perceived ease of use	0.485	0.089	5.456	0.292	0.641	Supported
Insecurity -> Perceived ease of use	-0.116	0.066	1.768	-0.28	-0.02	Supported
Perceived ease of use -> User satisfaction	0.85	0.029	29.774	0.789	0.901	Supported

5.2.1 Relationship between Optimism and PEOU

Ho: There is no significant positive relationship between optimism and perceived ease of use of SMK among the custom officer in Jabatan Kastam Malaysia.

According to most of the previous studies such as Walczuch et al. (2007); Kuo, Liu and Ma (2013) and; Parasuraman and Colby (2015) also stated that optimism had a significant positive relationship with perceived ease of use. However, in this research or study, there will be no significant positive relationship between optimism and perceived ease of use. Therefore, instead

of in agreement with previous studies done by past researchers, the researchers had to disagree with the statement that the more optimistic an individual, the more likely an individual will perceived a particular technology to be easy to use.

This is because, optimism was known as an attitude or mood of a particular person which associated with the expectation of future material or social (Luthans et al., 2008). However, in this study, the custom officers were required to use the SMK systems even if they do not have the mood or attitude to use it. Therefore, the researchers assume that this may be the reason why there is no significant relationship between optimism and perceived ease of use in this study.

5.2.2 Relationship between Innovativeness and PEOU

H1: There is a significant relationship positive relationship between innovativeness and perceived ease of use of SMK among the custom officers in Jabatan Kastam Malaysia.

The result of the research or study shown that, innovativeness has a significant positive relationship with perceived ease of use. In order words, the more innovative a particular custom officer is, the more perceived ease of use he or she perceived towards the SMK systems. Moreover, the results of the relationship between innovativeness and perceived ease of use are consistent or in agreement with previous studies or research such as Agarwal and Prasad (1998); and Kwon, Choi and Kim (2007). Besides that, individual who are early adopters of innovative technology will more likely to use the technology even if the benefits or advantages of the technology were ambiguous (Walczuch et al., 2007; Nik Abdullah, 2012; Wang et al., 2016).

This was supported by Chen and Chen's (2009); and Chen et al.'s (2014) studies where individual with higher personal innovativeness tend to be

have more effect on perceived ease of use. This is because, this category of people tends to be eager and willingly to try new technologies and motivated to understand any new features provided by new technologies (Kuo et al., 2013). Furthermore, as nowadays, more and more people including custom officers were at ease with technologies such as smart phones. Therefore, as proved in this study, innovativeness clearly had a significant positive relationship with the perceived ease of use.

5.2.3 Relationship between Discomfort and PEOU

H1: There is a significant negative relationship between discomfort and perceived ease of use of SMK among the custom officers in Jabatan Kastam Malaysia.

According to the above table 5.2, the results of the research or study shown that discomfort has a significant negative relationship with perceived ease of use. The result also are in agreement and consistent with past researches such as Venkatesh et al. (2003) and Lu et al. (2012). The study implied that if a custom officer perceived SMK system to be discomfort, that particular custom officer also may perceived the SMK system to be difficult to use.

Discomfort custom officers also may had been adapted to current technologies, therefore, this will directly affect the custom officers' intention to use new technologies (Kuo et al., 2013). For example, in the past, Jabatan Kastam Malaysia had been using the traditional method for goods declarations before implementing the SMK system. The implementation of SMK systems by Jabatan Kastam Malaysia started 20 years ago and the system undergo constant update with the latest update fall on 19th June 2017. Therefore, custom officers who high in discomfort may find he or she having difficulty in adapting to this changes and perceived the use of SMK systems requiring a lot of efforts.

5.2.4 Relationship between Insecurity and PEOU

Hl: There is a significant negative relationship between insecurity and perceived ease of use of SMK among the custom officers in Jabatan Kastam Malaysia.

Based from the above table 5.2, the result of the study or research shown that, insecurity had a significant negative relationship with perceived ease of use. The result of this variables was within the expectation of the researchers. This is because, the more insecurity a custom officer possess, the more likely that particular custom officer will perceived the SMK system to be complicated to use. Furthermore, custom officers who had a sense of technological insecurity may always worry about the negative consequences provided by the system as they do not have enough trust towards the system. For instance, custom officers who scored high in insecurity will always concern about whether the system will leaked any private information to other parties and this may cause the officers to be incapable to perform well and use the SMK system effectively. This relationship had been supported by past researchers such as Nik Abdullah (2012) and Hemdi et al. (2016) where insecurity will have a significant negative relationship with user's perceived ease of use.

5.2.5 Relationship between PEOU and User satisfaction

H1: There is a significant positive relationship between perceived ease of use and user's satisfaction of using SMK among the custom officers in Jabatan Kastam Malaysia.

According to the result of the study or research, perceived ease of use has a significant positive relationship with user satisfaction. This further confirmed the study done by past researchers such Suki and Ramayah

(2010); Tu, Fang and Lin (2012); Sibona and Choi (2012); Kuo, Liu and Ma (2013); and Shih and Lee (2014) where the researchers argued that perceived ease of use had a positive effect on user's satisfaction.

In practical, the custom officers were required to use the SMK system to undergo their everyday job task such as declaration of goods instead of using the classic documentation method. Next, the moment Jabatan Kastam Malaysia implemented these changes, the officers were resistance towards the changes as they perceived the use of technology is difficult and may need to spend more time in doing the jobs. Therefore, it is critical that the SMK system is design to be easy to use by the officers. This is because, when the SMK system was perceived as easy to use by the officers, it will directly increases their satisfaction in using the system. This statement was supported in Muslim Amin et al.'s (2014) study, where the researcher stated that whenever a particular individual perceived the system to be easy to use, and the satisfaction level of the user will increases.

5.3 Implication of the Study

5.3.1 Theoretical Implication

Based from the theoretical point of view, the researchers figure out that this study or research had contributed to the knowledge of applying Technology Readiness Index (TRI) and Technology Acceptance Model (TAM) in predicting the custom officers' satisfaction and acceptance of the newly updated SMK systems. Furthermore, as expected by the researchers, the perceived ease of use shown to has a significant relationship with the user's satisfaction whereas, the perceived usefulness will not be included in this study. This is because, as stated in previous chapters, the custom officers were required or compulsory by the Jabatan Kastam Malaysia to use the

SMK systems for declaration of goods. Therefore, the researchers decided to not focus on the perceived usefulness.

In addition, this study or research provide a deeper insight into the satisfaction of custom officers towards the SMK system based on the personal traits of Technology Readiness Index which are optimism, innovativeness, discomfort and insecurity.

5.3.2 Managerial Implications

Besides theoretical implications, the researchers also figure out the managerial implications for this study where the custom officers are demonstrating higher technological readiness for innovativeness, insecurity and discomfort which encourage the Jabatan Kastam Malaysia to provide the custom officers with appropriate technology assistance. In the case of optimism, the result shown that optimism was insignificant with the custom officer's perceived ease of use since, the officers were required to use the system even if they were not optimistic about the systems. Another reason may be due to the reasons that the Jabatan Kastam Malaysia had been emphasizing too much on the user's optimism. Next, among the custom officers, there were some of the officers who were lacking in computer literacy and thus may perceived more negative emotions and expectations towards the systems. Therefore, continuous training program and education should be provided to the custom officers in order to help them realize the important or benefits of using technology along with minimizing the feeling of discomfort and insecurity among the custom officers.

Through this study or research, the researchers also found that all of the variables such as innovativeness, discomfort and insecurity will affected the custom officers' perceived ease of use towards the SMK systems with exception of only one variable which is optimism. Therefore, it is suggested that the custom officers' requirements must be fully understood during the

development of SMK so that the system able to meet of fulfilled the officers' demand and lead to user's satisfaction.

5.4 Limitation of the study

During this research study, we have faced some unavoidable limitations. At the same time, due to this limitation, we need to spent additional time and efforts, to double confirm and check on our study in order meet the aim for our study. These factors are consider as the limitation that researchers faced during the process of this study.

5.4.1 Involvement of the Respondents'

This is the most common limitation that generally faced by the others researchers when conducting a survey, so was the researchers. During the time the researchers conducting the survey, most of the officers were not willing to participate in this survey because, they perceived that the study may leak their answer to other officers which will eventually affect their job. This is because, this study was mainly focus on the custom officers' satisfaction level in using the SMK system to perform their job task. Yet, there were still some of the respondents who were willing to provide the researchers with responses. Still, the researchers were able to receive 107 sets of questionnaires via Google Docs.

5.4.2 Access to the People

In this research, the access to the custom officers and custom department across Malaysia is limited. This is because, the researchers were required to gain permission from the Director of Jabatan Kastam Malaysia in order to

further access into the custom departments' top management and all of the employees. However, the researchers were unable to gain the necessary permission from the Director to gain access to the Jabatan Kastam Malaysia's top management officers and most of the employees. Therefore, the researchers were unable to provide a more accurate result for this study as most of the top management of Jabatan Kastam Malaysia were not participate in this study.

5.4.3 Policy and Privacy

Initially, when the researchers request for the permission to distribute the questionnaire in Jabatan Kastam Malaysia, the researchers were rejected due to the policy and privacy of the Jabatan Kastam Malaysia. This is due to the reasons that the questionnaire the researchers design contained some of the sensitive and irrelevant questions. However, after amending the questionnaire several times according to the custom officers' suggestion, the researchers were successfully persuaded the officers in allowing the researchers to distribute and collect the data from them and completed the research study.

5.5 Recommendations for Future Research

Our research is guiding a right way for the future research. The hypothesis of this study was to study the effect of technology readiness and acceptance of SMK in Jabatan Kastam Malaysia. However, there are some recommendations for the future research.

For the first recommendations that the researchers going to provide to the future researcher is to have a study on testing the relationship between the variables of technology readiness index and technology acceptance model with the user satisfaction in order to more accurately determine the level of user satisfaction

among the officer toward the SMK. In addition, researcher can add more moderators and mediators such as perceived usefulness, complexity, trust, flexibility, reliability and so on into the study of the effect of technology readiness and acceptance. With this, the test result can be more helpful for the Jabatan Kastam Malaysia in order to make improvement on their implemented system and increased their productivities and comfortable level when using the SMK system.

Furthermore, the questionnaires of this study were consisted of dual languages. This is because, some of the respondents were having difficulty in understanding the question in the questionnaires. Therefore, future researchers can add more languages or versions into the study such as English, Malay and Chinese into the questionnaire as it able to help the respondents to understand the question better and allowed the respondent to provide a more accurate responses.

Lastly, researcher can conduct the effect of technology readiness and acceptance of SMK in other industries as well. For example, manufacturing or logistic industries they are also using the SMK. Manufacturing and logistic industries need to use SMK to help the company get the licences to export and import their products. Conduct in other industries also can help researcher to get more respondents and collect more opinion and data.

5.6 Conclusion

This study or research provides some issues in Jabatan Kastam Malaysia. First, this study determines the effect of technology readiness and acceptance of Sistem Maklumat Kastam (SMK) among the custom officers in Jabatan Kastam Malaysia. According to the shown result, all of the dimensions of technology readiness index were having a significant effect on the custom officers' perceived ease of use except optimism which does not has a significant effect on the PEOU. Further, the perceived ease of use also shown to has a significant effect on the custom officers' satisfaction level. Significant indicators towards user satisfaction are provided by the researchers to help the Jabatan Kastam Malaysia in understanding how the

custom officers' accept the SMK system. Several limitations and recommendation also had been suggested by the researchers for the future researchers to take note.

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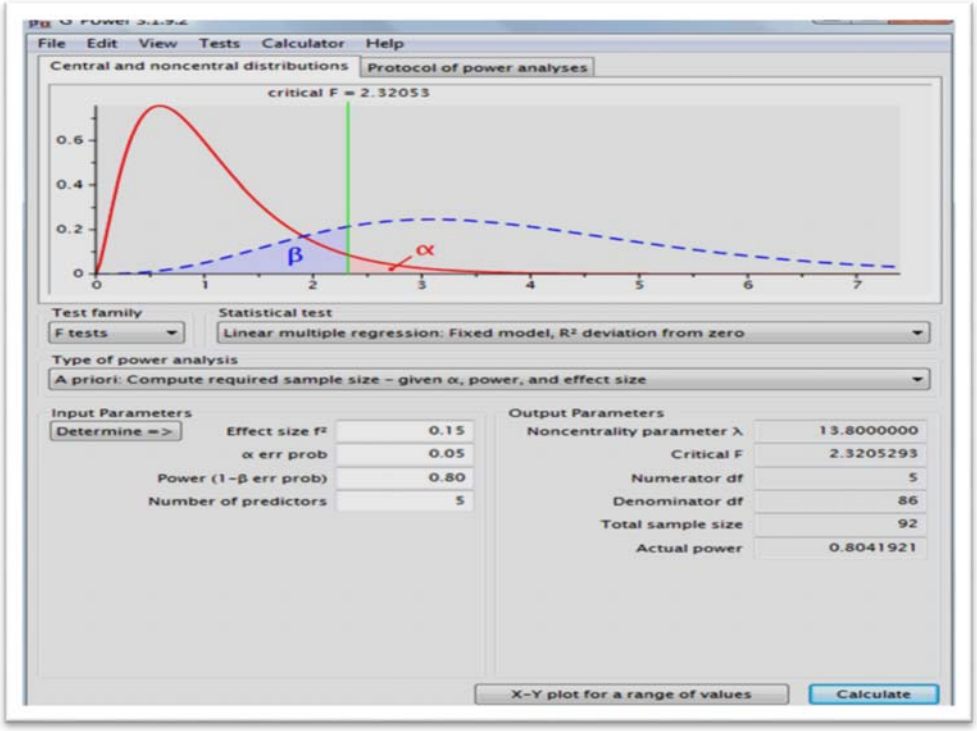
Appendices

Appendix A: Result of G power



Appendix B: Original and modified questions of Technology readiness index

Technology readiness index (TRI)

Original questions	Modified questions
Optimism	Optimism
OPT1 Technology gives people more control over their daily lives.	OPT1 Sistem maklumat kastam memberikan pengguna lebih banyak kawalan ke atas tugasan seharian mereka. SMK gives people more control over their everyday tasks.
OPT2 Products and services that use the newest technologies are much more convenient to use.	OPT2 Proses pengikraran menggunakan SMK lebih mudah digunakan berbanding dengan pengikraran menggunakan borang.

	The declaration process becoming easier through the use of SMK than using document.
OPT3 I prefer to use the most advanced technology available.	OPT3 Saya lebih suka menggunakan sistem SMK berbanding dengan cara pengikraran menggunakan borang kastam. I prefer to use SMK system than custom document as a method for declaration.
OPT4 I like technologies that allow me to tailor things to fit my own needs.	OPT4 Saya suka sistem SMK kerana ianya memudahkan saya dengan hanya mengisi maklumat di ruangan yang telah sedia ada di dalam paparan sistem. I like SMK system because it make me easier by only needed to fill in the information at the space provided in the display system.
OPT5 Technology makes me more efficient in my occupation.	OPT5 Sistem maklumat kastam meningkatkan tahap kecekapan saya semasa bekerja. SMK makes me more efficient in my occupation.
OPT6 I find new technologies to be mentally stimulating	OPT6 Saya mendapati sistem SMK lebih merangsangkan dari segi mental. I find SMK to be mentally stimulating.
OPT7 Technology give me more freedom of mobilty	OPT7 Dengan adanya SMK, ianya memberikan saya lebih banyak kebebasan untuk bergerak. By having SMK, it gives me more freedom of mobility

OPT8 Learning about technology can be as rewarding as the technology itself.	OPT8 Sistem SMK boleh meningkatkan pungutan hasil bagi JKDM. SMK system can increases the revenue collections for JKDM.
OPT9 I feel confident that technology-based systems will follow through with what I instruct them to do.	OPT9 Dengan menggunakan sistem SMK, saya berasa lebih yakin kerana ianya berfungsi seperti yang saya arahkan. By using SMK, I feel more confident because the systems functions according as I instructed.
Innovativeness	Innovativeness
INN1 Other people come to me for advice on new technologies.	INN1 Orang lain datang kepada saya untuk mendapatkan nasihat mengenai sistem SMK. Other people come to me for advice on SMK system.
INN2 It seems my friends are learning more about the newest technologies than I am	INN2 Rakan sekerja saya lebih arif menggunakan SMK berbanding dengan saya. My colleagues were more skilled in using SMK than me [reverse scored]
INN3 In general, I am among the first in my circle of friends to acquire new technology when it appears.	INN3 Secara umum, saya adalah antara yang pertama dijadikan rujukan mengenai sistem SMK di tempat kerja saya. In general, I was among the first in my workplace that being made as reference to SMK system.
INN4	INN4

I can usually figure out new high-tech products and services without help from others.	Biasanya saya boleh menggunakan sistem SMK tanpa bantuan daripada orang lain. Usually I can figure out how to use SMK system without help from anyone.
INN5 I keep up with the latest technological developments in my areas of interest.	INN5 Saya sentiasa mengikuti pindaan terkini ke atas sistem SMK dari masa ke semasa. I always keep up with the latest version of SMK system from time to time.
INN6 I enjoy the challenge of figuring out high-tech gadgets.	INN6 aya menikmati keseronokan dan cabaran dalam proses menggunakan sistem SMK. I enjoy the challenging process of using SMK system
INN7 I find I have fewer problems than other people in making technology work for me.	INN7 Saya tidak mempunyai masalah dalam menggunakan SMK berbanding dengan rakan sekerja saya yang lain. I find myself to have fewer problems than others in using SMK.
Discomfort	Discomfort
DIS1 Technical support lines are not helpful because they don't explain things in terms I understand.	DIS1 Sistem SMK sangat mudah dan jelas. SMK system was easy and clear.
DIS2 Many new technologies have health or safety risks that are not discovered until after people have used them.	DIS2 Sistem SMK ini memudahkan jabatan untuk mengintip agen penghantaran dari melakukan kesilapan pengikraran barangan. SMK system makes it easy for the departments to spy on the delivery agent mistakes during the declaration of goods.

Insecurity	Insecurity
INS1 I do not consider it safe to provide personal information over the Internet.	INS1 Saya berasa tidak selamat untuk melakukan pengikraran barangan melalui elektronik. I do not consider it safe to do any goods declaration online
INS2 I worry that information I make available over the Internet mayb be misused by others.	INS2 Saya bimbang bahawa maklumat pengikraran borang yang dimasukkan di dalam sistem akan sampai ke pihak yang lain bagi kegunaan yang salah. I worry that the document's declaration information that I entered into the system will be send to other party with bad intention.
INS3 I do not feel confident doing business with a place that can only be reached online.	INS3 Saya berasa tidak yakin menjalankan proses pengikraran kastam yang hanya bergantung dengan sistem elektronik sahaja. I am not convince in the custom's declaration process that only depends on electronic system
INS4 Any business transaction you do electronically should be confirmed later with a separate communication.	INS4 Apa-apa transaksi melalui sistem elektronik perlu disahkan kemudian secara bertulis. Any transaction through electronic system need to be confirmed later in black and white or written.
INS5	INS5

When I call a business, I prefer talking to a person rather than interacting with an automated system.	Saya lebih suka berkomunikasi secara bersemuka dengan orang dan bukannya melalui mesin semasa urusan pengikraran barangan. I prefer to talk in person rather than through a machine during the declaration of goods.

Source: Parasuraman & Colby (2014)

Appendix C: Original and modified questions of user satisfaction

Dependent variables

User satisfaction

Original questions	Modified questions
USER1 Saya berniat untuk menggunakan Sistem maklumat Kastam ditempat kerja saya.	USER1 Saya setuju penggunaan sistem SMK di tempat kerja saya diteruskan. I agree to the continuance use of SMK system in my workplace.
USER2 Saya akan kembali ke SMK ini kerap jika ada urusan kerja	USER2 Saya akan kembali ke SMK secara kerap jika ada proses pengikraran perlu dilakukan. I will frequently come back to SMK if there was a declaration process that needed to be done.
USER3 Saya berniat untuk menerima maklumat atau tugas kerja dengan mengunkan SMK	USER3 Saya berniat untuk menerima maklumat atau tugas kerja dengan menggunakan SMK. I intend to receive information or workload through the use of SMK.

Appendix D: Original and modified questions of perceived ease of use

Perceived ease of use

Original questions	Modified questions
PEOU1 Learning to use E-government system would be easy for me	PEOU1 Belajar cara penggunaan sistem SMK adalah mudah bagi saya. Learning to use SMK system would be easy for me.
PEOU2 I would find it easy to get better service using E-government system	PEOU2 Saya mendapati bahawa pengikraran menjadi lebih mudah melalui sistem SMK. I found that declaration becoming easier through SMK system
PEOU3 It would be easy for me to become skill full at using E-government system	PEOU3 Ia adalah mudah bagi saya untuk menjadi mahir dalam pengunaan sistem SMK. It would be easy for me to become skillful at using SMK system
PEOU4 I would find E-government system easy to use	PEOU4 Saya mendapati bahawa SMK adalah senang digunakan. I would find SMK easy to use.
PEOU5 My interaction with E-learning was clear and understandable.	PEOU5 Interaksi antara saya dengan SMK adalah jelas dah mudah difahami. My interaction with SMK would be clear and understable
PEOU6 I think it is easy to use an NFC mobile payment system.	PEOU6 Prosedur bagi sistem SMK adalah mudah difahami.

	Procedure for SMK system is easy to understand.
PEOU7 It would be easy for me to find information at E-learning.	PEOU7 Saya berasa mudah untuk mengetahui perjalanan proses pengikraran barangan melalui sistem SMK. I would find it easy to know the course of goods declaration process through SMK system.

Source: Fred (1989), Maslin Masrom (2007), Suki & Ramayah (2010) & Shin & Lee (2014).

Appendix E: Sources of questionnaire questions

Variables	**Sources (Adopted from)**	**Number of Items (Original)**	**Number of Items (Modified)**
Optimism	Parasuraman, A. & Colby, C. L. (2014)	12	10
Innovativeness	Parasuraman, A. & Colby, C. L. (2014)	9	7
Discomfort	Parasuraman, A. & Colby, C. L. (2014)	13	9
Insecurity	Parasuraman, A. & Colby, C. L. (2014)	11	9
User satisfaction	Suki, N. M. & Ramayah, T. (2010)	3	3
Perceived ease of use	Masrom, M. (2007) Davis, F. D. (1989) Suki, N. M. & Ramayah, T. (2010)	8	7

Appendix F: Example of Interval Scale question from Section B

No.	Optimism	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1.	Sistem maklumat kastam memberikan pengguna lebih banyak kawalan ke atas tugasan seharian mereka. (SMK gives people more control over their everyday tasks).	1	2	3	4	5

Source: Develop from the research

Appendix G: Example of Interval Scale in Section C

No.	User Satisfaction	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Saya setuju penggunaan sistem SMK di tempat kerja saya diteruskan. (I agree to the continuance use of SMK system in my workplace.)	1	2	3	4	5

Source: Develop from the research

Appendix H: Example of Interval Scale in Section D

No.	Perceived Ease of Use	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1.	Belajar cara penggunaan sistem SMK adalah mudah bagi saya. (Learning	1	2	3	4	5

	to use SMK system would be easy for me.)					

Appendix I: Table of Demographic Profile and Coding

Question No.	**Label**	**Coding**
Q1	Gender	• "Male" - 1 • "Female" - 2
Q2	Age Group	• "21 – 30 years old" - 1 • "31 - 40 years old" - 2 • "41 - 50 years old" - 3 • "51 - 60 years old" - 4
Q3	Marital Status	• "Single" - 1 • "Married" - 2 • "Others" - 3
Q4	Educational Level	• "SPM" - 1 • "STPM / Diploma" - 2 • "Ijazah Sarjana Muda / Degree" - 3 • "Lain-lain / Others" - 4
Q5	Position Grade	• "WK19 – WK26" - 1 • "WK27 – WK32" - 2 • "WK41 – WK44" - 3 • "WK48 – WK52" - 4
Q6	Length or Period of services	• "1 – 5 Tahun / years" - 1 • "6 – 10 Tahun / years" - 2 • "11 – 15 Tahun / years" - 3 • "16 Tahun ke atas / above" - 4
Q7	Salary	• "RM 900 – RM1500" - 1 • "RM 1501 – RM2500" - 2 • "RM 2501 – RM3500" - 3

		• "RM 3501 – RM4500" - 4 • "RM4501 Ke atas / above" - 5

Appendix J: Table of Data Coding for Section B, C and D

Question	**Coding**
3. Secara umum, saya adalah antara yang pertama dijadikan rujukan mengenai sistem SMK di tempat kerja saya. (In general, I was among the first in my workplace that being made as reference to SMK system.)	• "Strongly Disagree" is coded as 1 • "Disagree" is coded as 2 • "Neutral" is coded as 3 • "Agree" is coded as 4 • "Strongly Agree" is coded as 5

Appendix K: Result of Normality test

Tests of Normality[b,c,d,e,f,g,h,i,j]

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
2.2	.307	4	.	.729	4	.024
2.4	.307	4	.	.729	4	.024
2.7	.407	6	.002	.640	6	.001
3.4	.307	4	.	.729	4	.024
3.6	.407	6	.002	.640	6	.001
3.7	.284	12	.008	.859	12	.048
3.8	.381	10	.000	.640	10	.000
4.3	.291	8	.045	.799	8	.028
4.4	.307	4	.	.729	4	.024
4.6	.415	15	.000	.631	15	.000
4.8	.258	5	.200*	.782	5	.057
5	.407	6	.002	.640	6	.001

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

b. User satisfaction is constant when Optimism = 2.10. It has been omitted.

c. User satisfaction is constant when Optimism = 2.80. It has been omitted.

d. User satisfaction is constant when Optimism = 3.00. It has been omitted.

e. User satisfaction is constant when Optimism = 3.20. It has been omitted.

f. User satisfaction is constant when Optimism = 3.30. It has been omitted.

g. User satisfaction is constant when Optimism = 3.50. It has been omitted.

h. User satisfaction is constant when Optimism = 3.90. It has been omitted.

i. User satisfaction is constant when Optimism = 4.10. It has been omitted.

j. User satisfaction is constant when Optimism = 4.20. It has been omitted.

Tests of Normality[b,c,d,e,f,g,h,i]

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
2.2857142857142856	.330	6	.039	.762	6	.026
2.857142857142857	.307	4	.	.729	4	.024
3	.263	6	.200*	.823	6	.093
3.4285714285714284	.316	8	.018	.772	8	.014
3.5714285714285716	.224	14	.054	.876	14	.052
4	.270	10	.038	.788	10	.010
4.142857142857143	.148	16	.200*	.945	16	.411
4.857142857142857	.385	3	.	.750	3	.000
5	.392	19	.000	.693	19	.000

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

b. User satisfaction is constant when Innovativeness = 2.00. It has been omitted.

c. User satisfaction is constant when Innovativeness = 2.57. It has been omitted.

d. User satisfaction is constant when Innovativeness = 3.14. It has been omitted.

e. User satisfaction is constant when Innovativeness = 3.29. It has been omitted.

f. User satisfaction is constant when Innovativeness = 3.86. It has been omitted.

g. User satisfaction is constant when Innovativeness = 4.29. It has been omitted.

h. User satisfaction is constant when Innovativeness = 4.57. It has been omitted.

i. User satisfaction is constant when Innovativeness = 4.71. It has been omitted.

Tests of Normality[b,c,d,e,f,g]

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
3	.300	10	.011	.773	10	.007
3.111111111111111	.381	10	.000	.640	10	.000
3.2222222222222223	.245	10	.091	.820	10	.025
3.3333333333333335	.307	4	.	.729	4	.024
3.4444444444444446	.289	9	.029	.765	9	.008
3.5555555555555554	.189	17	.110	.888	17	.043
3.6666666666666665	.307	4	.	.729	4	.024
3.7777777777777777	.361	8	.003	.670	8	.001
3.888888888888889	.229	8	.200*	.871	8	.155
4	.407	6	.002	.640	6	.001
4.111111111111111	.307	4	.	.729	4	.024
4.222222222222222	.307	4	.	.729	4	.024

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

b. User satisfaction is constant when Discomfort = 2.56. It has been omitted.

c. User satisfaction is constant when Discomfort = 2.78. It has been omitted.

d. User satisfaction is constant when Discomfort = 2.89. It has been omitted.

e. User satisfaction is constant when Discomfort = 4.33. It has been omitted.

f. User satisfaction is constant when Discomfort = 4.78. It has been omitted.

g. User satisfaction is constant when Discomfort = 5.00. It has been omitted.

Tests of Normality[b,c,d,e,f,g]

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
2.4444444444444446	.307	4	.	.729	4	.024
2.5555555555555554	.407	6	.002	.640	6	.001
2.6666666666666665	.307	4	.	.729	4	.024
2.7777777777777777	.259	10	.056	.801	10	.015
2.888888888888889	.153	8	.200*	.900	8	.291
3	.210	25	.006	.885	25	.009
3.111111111111111	.385	3	.	.750	3	.000
3.2222222222222223	.250	8	.150	.849	8	.093
3.3333333333333335	.307	4	.	.729	4	.024
3.5555555555555554	.263	6	.200*	.823	6	.093
3.6666666666666665	.307	4	.	.729	4	.024
3.7777777777777777	.307	4	.	.729	4	.024
4.111111111111111	.226	6	.200*	.842	6	.135

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

b. User satisfaction is constant when Insecurity = 2.11. It has been omitted.

c. User satisfaction is constant when Insecurity = 2.22. It has been omitted.

d. User satisfaction is constant when Insecurity = 2.33. It has been omitted.

e. User satisfaction is constant when Insecurity = 4.00. It has been omitted.

f. User satisfaction is constant when Insecurity = 4.33. It has been omitted.

g. User satisfaction is constant when Insecurity = 4.44. It has been omitted.

h. User satisfaction is constant when Insecurity = 5.00. It has been omitted.

Tests of Normality[b,c,d,e,f,g]

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
3	.518	16	.000	.398	16	.000
3.125	.202	6	.200*	.853	6	.167
3.75	.202	6	.200*	.853	6	.167
3.875	.307	4	.	.729	4	.024
4	.359	26	.000	.691	26	.000
4.25	.307	4	.	.729	4	.024
4.5	.307	4	.	.729	4	.024
4.75	.385	3	.	.750	3	.000
4.875	.376	5	.020	.739	5	.023
5	.527	20	.000	.351	20	.000

a. Lilliefors Significance Correction

*. This is a lower bound of the true significance.

b. User satisfaction is constant when Perceived ease of use = 2.00. It has been omitted.

c. User satisfaction is constant when Perceived ease of use = 2.38. It has been omitted.

d. User satisfaction is constant when Perceived ease of use = 2.88. It has been omitted.

e. User satisfaction is constant when Perceived ease of use = 3.38. It has been omitted.

f. User satisfaction is constant when Perceived ease of use = 4.13. It has been omitted.

g. User satisfaction is constant when Perceived ease of use = 4.38. It has been omitted.

Appendix L: Total Variance Explained commona method bias

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	19.548	42.496	42.496	19.548	42.496	42.496	9.717	21.125	21.125
2	4.050	8.803	51.300	4.050	8.803	51.300	8.905	19.358	40.483
3	3.034	6.595	57.895	3.034	6.595	57.895	3.977	8.645	49.128
4	2.576	5.599	63.494	2.576	5.599	63.494	3.379	7.346	56.474
5	1.925	4.185	67.679	1.925	4.185	67.679	2.998	6.517	62.991
6	1.719	3.736	71.415	1.719	3.736	71.415	2.042	4.439	67.430
7	1.508	3.278	74.693	1.508	3.278	74.693	2.030	4.412	71.842
8	1.448	3.147	77.840	1.448	3.147	77.840	2.009	4.367	76.210
9	1.112	2.418	80.258	1.112	2.418	80.258	1.862	4.048	80.258
10	.995	2.163	82.421						
11	.899	1.955	84.376						
12	.821	1.786	86.162						
13	.710	1.543	87.705						
14	.678	1.474	89.178						
15	.587	1.275	90.453						
16	.537	1.166	91.620						

17	.494	1.074	92.693						
18	.421	.915	93.608						
19	.392	.853	94.461						
20	.316	.687	95.147						
21	.283	.616	95.763						
22	.248	.538	96.302						
23	.226	.491	96.793						
24	.197	.428	97.221						
25	.151	.328	97.549						
26	.151	.328	97.877						
27	.131	.286	98.163						
28	.124	.269	98.431						
29	.120	.261	98.692						
30	.094	.204	98.896						
31	.084	.183	99.079						
32	.074	.161	99.241						
33	.061	.133	99.374						
34	.058	.127	99.501						
35	.044	.097	99.597						

36	.040	.087	99.684						
37	.034	.075	99.759						
38	.028	.062	99.820						
39	.028	.060	99.881						
40	.016	.034	99.915						
41	.015	.032	99.947						
42	.009	.020	99.967						
43	.006	.013	99.981						
44	.004	.009	99.990						
45	.003	.007	99.997						
46	.001	.003	100.000						

Extraction Method: Principal Component Analysis.

Appendix M: Frequency table for respondent's demographic profile for Jabatan Kastam Malaysia

Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
male	44	41.5	41.5	41.5
female	62	58.5	58.5	100.0
Total	106	100.0	100.0	

Age

	Frequency	Percent	Valid Percent	Cumulative Percent
21-30	32	30.2	30.2	30.2
31-40	46	43.4	43.4	73.6
41-50	22	20.8	20.8	94.3
51-60	6	5.7	5.7	100.0
Total	106	100.0	100.0	

Maritalstatus

	Frequency	Percent	Valid Percent	Cumulative Percent
single	30	28.3	28.3	28.3
Married	72	67.9	67.9	96.2
Others	4	3.8	3.8	100.0
Total	106	100.0	100.0	

Educationlevel

	Frequency	Percent	Valid Percent	Cumulative Percent
SPM	78	73.6	73.6	73.6
STPM / Diploma	10	9.4	9.4	83.0
Degree	16	15.1	15.1	98.1
Others	2	1.9	1.9	100.0
Total	106	100.0	100.0	

Position

	Frequency	Percent	Valid Percent	Cumulative Percent
WK19-WK26	82	77.4	77.4	77.4
WK27-WK32	8	7.5	7.5	84.9
WK41-WK44	14	13.2	13.2	98.1
WK48-WK52	2	1.9	1.9	100.0
Total	106	100.0	100.0	

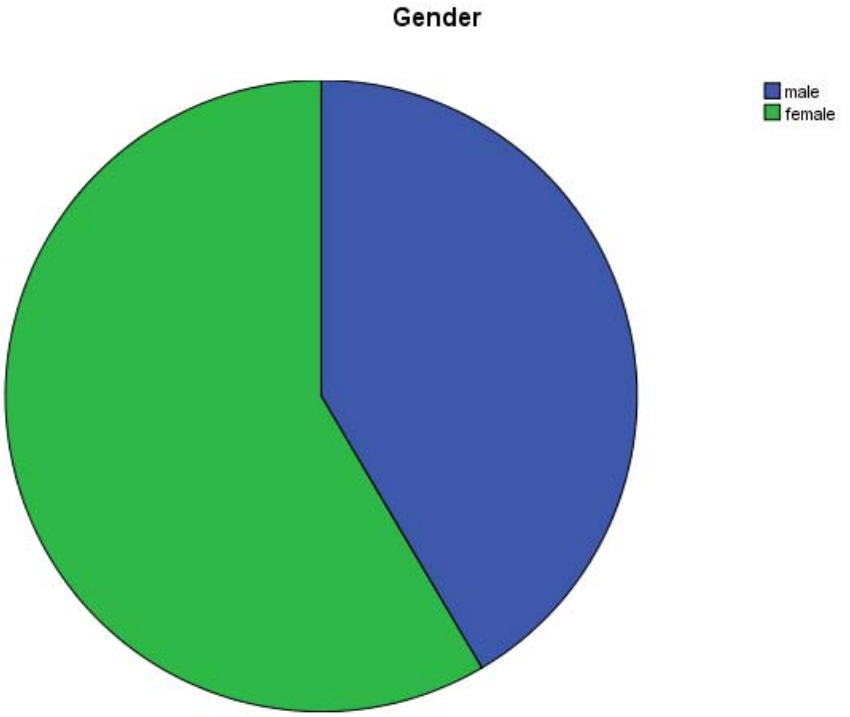
service

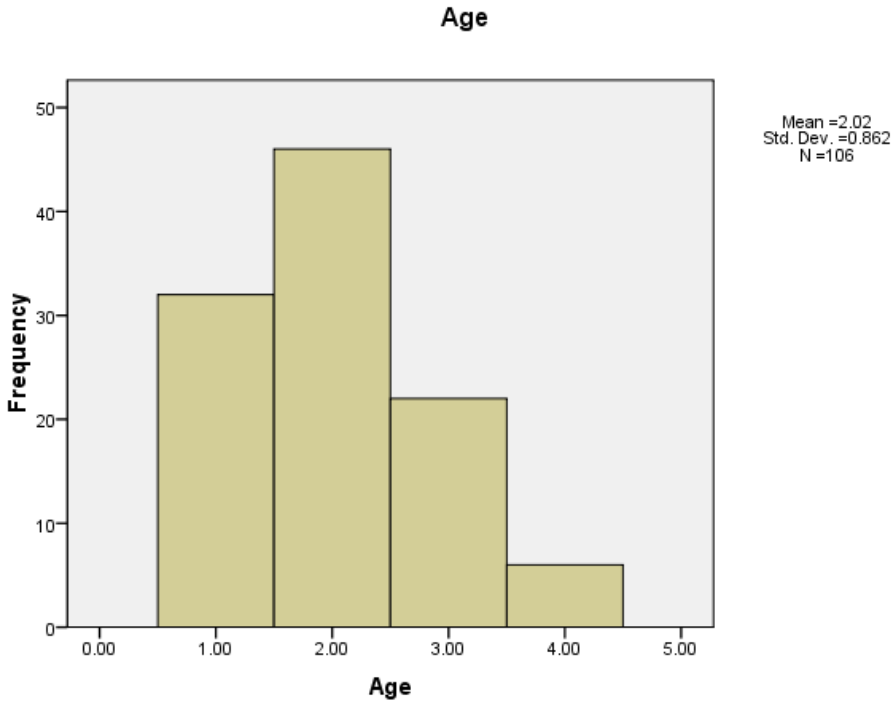
	Frequency	Percent	Valid Percent	Cumulative Percent
1-5	14	13.2	13.2	13.2
6-10	26	24.5	24.5	37.7
11-15	14	13.2	13.2	50.9
16 above	52	49.1	49.1	100.0
Total	106	100.0	100.0	

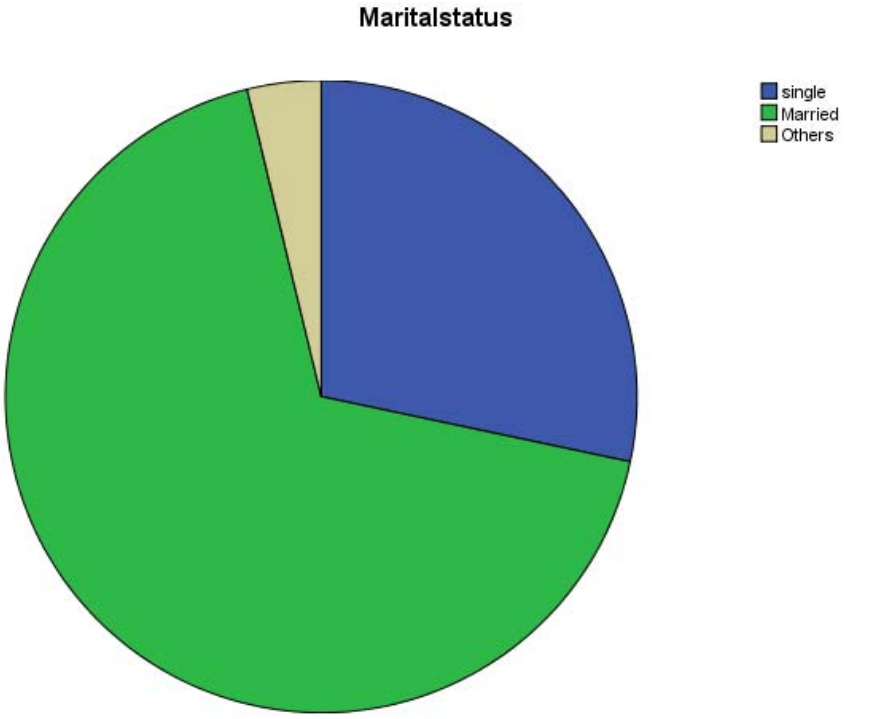
Salary

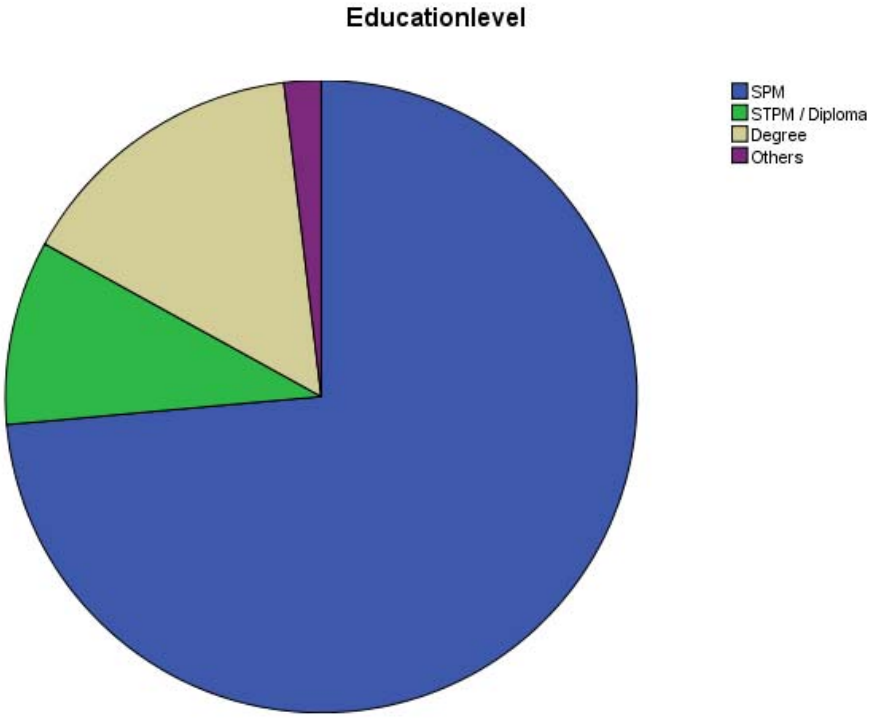
	Frequency	Percent	Valid Percent	Cumulative Percent
RM900-RM1500	2	1.9	1.9	1.9
RM1501- RM2500	30	28.3	28.3	30.2
RM2501- RM3500	14	13.2	13.2	43.4
RM3501 - RM4500	48	45.3	45.3	88.7
RM4501 and above	12	11.3	11.3	100.0
Total	106	100.0	100.0	

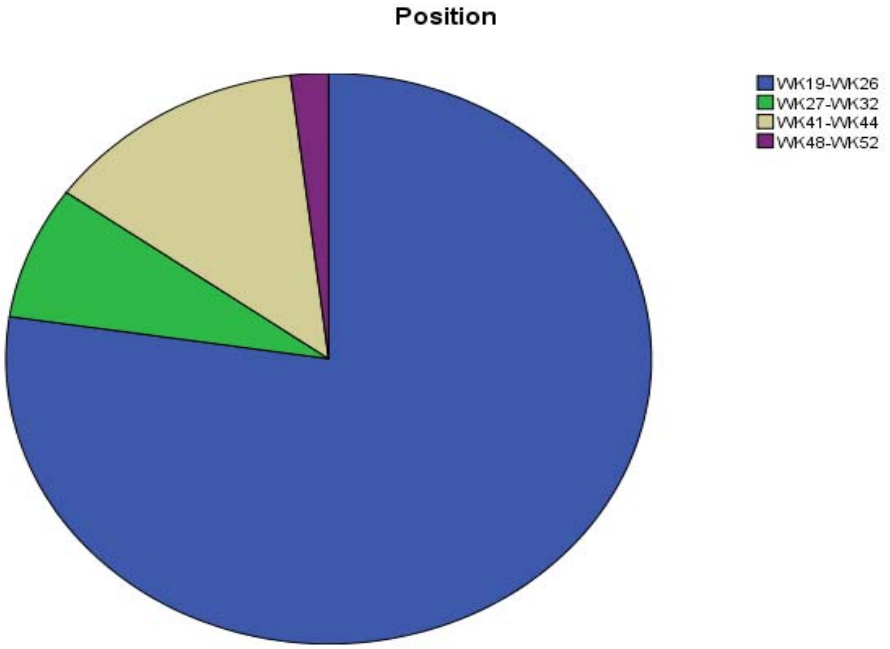
Appendix N: Chart diagram for respondent's demographic profile from Jabatan Kastam Malaysia

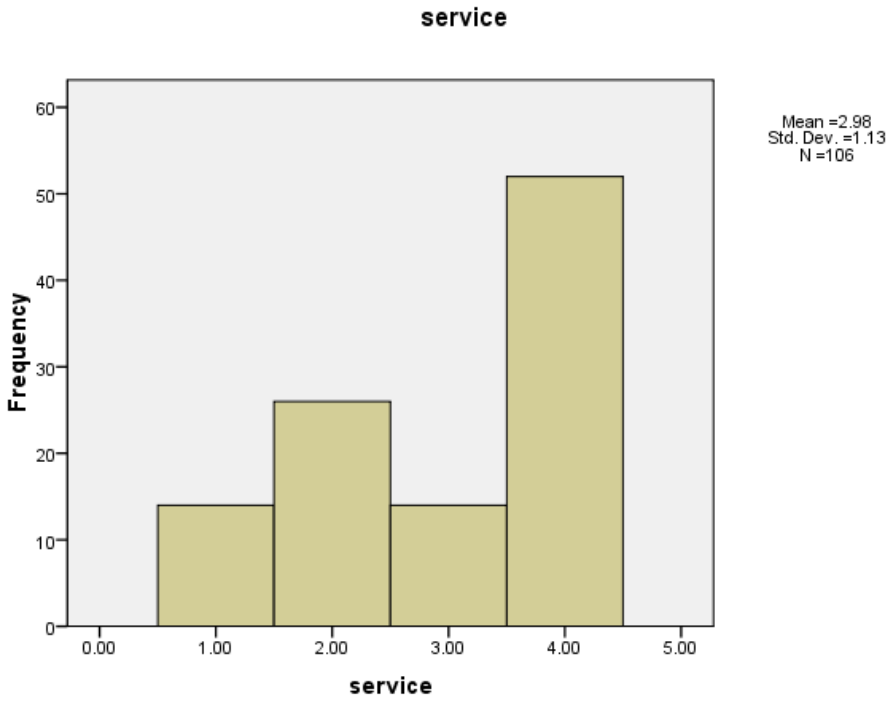





Maritalstatus
single
Married
Others


Educationlevel
SPM
STPM / Diploma
Degree
Others


Position
WK19-WK26
WK27-WK32
WK41-WK44
WK48-WK52

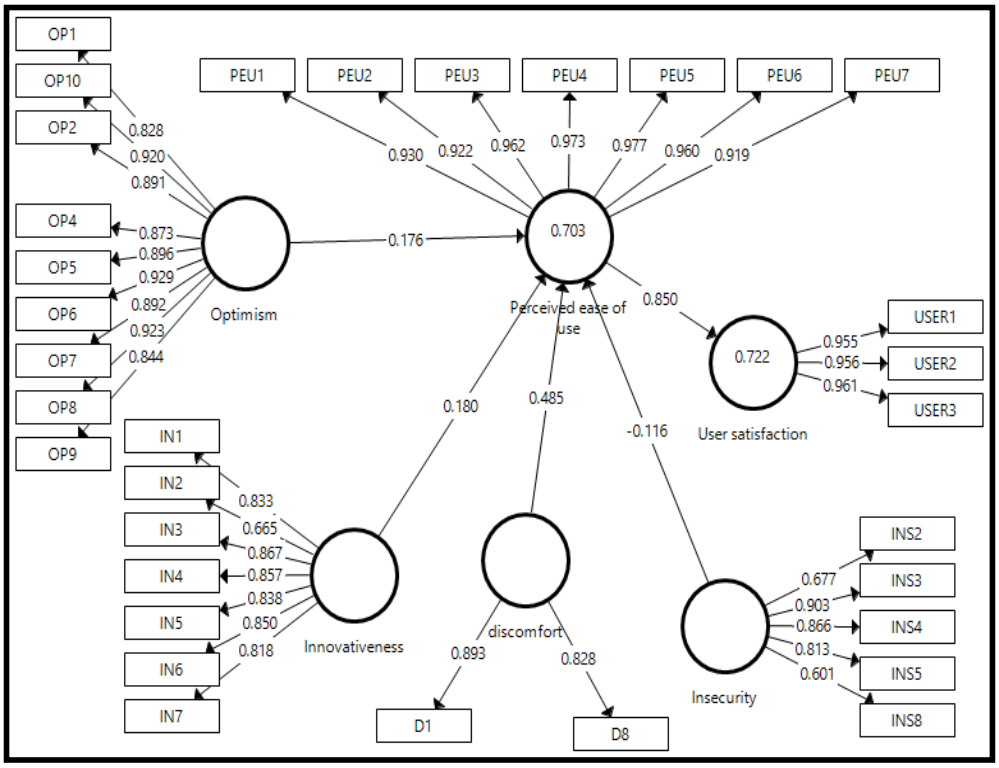

service
Mean =2.98
Std. Dev. =1.13
N =106
Frequency
60
50
40
30
20
10
0
0.00
1.00
2.00
3.00
4.00
5.00
service

Appendix O: Descriptive Statistics of the study variables

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Optimism	106	2.10	5.00	3.7811	.79272
Innovativeness	106	2.00	5.00	3.8208	.83789
Discomfort	106	2.56	5.00	3.5482	.48281
Insecurity	106	2.11	5.00	3.1583	.58993
User satisfaction	106	1.33	5.00	3.6981	.88554
Perceived ease of use	106	2.00	5.00	3.9682	.78434
Valid N (listwise)	106				

Appendix P: Path coefficients among the Independent variables, and dependent variable.



Appendix Q: Reliability of Constructs

Constructs	Items	Loadings	CR	AVE	VIF
Discomfort	D1	0.893	0.852	0.742	2.661
	D8	0.828			
Innovativeness	IN1	0.833	0.935	0.674	2.363
	IN2	0.665			
	IN3	0.867			
	IN4	0.857			
	IN5	0.838			
	IN6	0.85			
	IN7	0.818			
Insecurity	INS2	0.677	0.884	0.609	1.498
	INS3	0.903			
	INS4	0.866			
	INS5	0.813			
	INS8	0.601			
Optimism	OP1	0.828	0.971	0.79	2.275
	OP10	0.92			
	OP2	0.891			
	OP4	0.873			
	OP5	0.896			
	OP6	0.929			
	OP7	0.892			
	OP8	0.923			
	OP9	0.844			
Perceived	PEU1	0.93	0.985	0.901	1
Esae of use	PEU2	0.922			
	PEU3	0.962			
	PEU4	0.973			
	PEU5	0.977			
	PEU6	0.96			
	PEU7	0.919			
User	USER1	0.955	0.97	0.916	
satisfaction	USER2	0.956			
	USER3	0.961			

Appendix R: Cross Loading

	Innovativeness	Insecurity	Optimism	Perceived ease of use	User satisfaction	discomfort
D1	0.786	-0.508	0.685	0.760	0.604	0.893
D8	0.409	-0.436	0.504	0.609	0.584	0.828
IN1	0.833	-0.387	0.688	0.611	0.603	0.606
IN2	0.665	-0.220	0.528	0.364	0.348	0.412
IN3	0.867	-0.385	0.618	0.524	0.561	0.484
IN4	0.857	-0.414	0.523	0.646	0.516	0.623
IN5	0.838	-0.377	0.408	0.601	0.473	0.593
IN6	0.850	-0.522	0.678	0.666	0.656	0.738
IN7	0.818	-0.422	0.447	0.549	0.473	0.584
INS2	-0.361	0.677	-0.422	-0.296	-0.368	-0.320
INS3	-0.400	0.903	-0.442	-0.525	-0.565	-0.497
INS4	-0.367	0.866	-0.400	-0.467	-0.454	-0.509
INS5	-0.400	0.813	-0.371	-0.455	-0.455	-0.407
INS8	-0.376	0.601	-0.297	-0.385	-0.352	-0.379
OP1	0.527	-0.319	0.828	0.588	0.555	0.614
OP10	0.633	-0.440	0.920	0.601	0.652	0.579
OP2	0.570	-0.378	0.891	0.626	0.642	0.569
OP4	0.581	-0.534	0.873	0.591	0.635	0.685
OP5	0.535	-0.384	0.896	0.619	0.579	0.662
OP6	0.635	-0.412	0.929	0.625	0.674	0.629
OP7	0.667	-0.433	0.892	0.616	0.700	0.601
OP8	0.590	-0.534	0.923	0.644	0.684	0.642
OP9	0.667	-0.498	0.844	0.640	0.730	0.614
PEU1	0.681	-0.613	0.682	0.930	0.867	0.744
PEU2	0.600	-0.580	0.692	0.922	0.795	0.762
PEU3	0.663	-0.491	0.612	0.962	0.812	0.768
PEU4	0.662	-0.510	0.650	0.973	0.793	0.748
PEU5	0.669	-0.514	0.628	0.977	0.796	0.769
PEU6	0.695	-0.521	0.657	0.960	0.809	0.779
PEU7	0.698	-0.469	0.692	0.919	0.771	0.754
USER1	0.644	-0.548	0.731	0.857	0.955	0.741
USER2	0.588	-0.503	0.706	0.794	0.956	0.606
USER3	0.609	-0.589	0.664	0.786	0.961	0.624

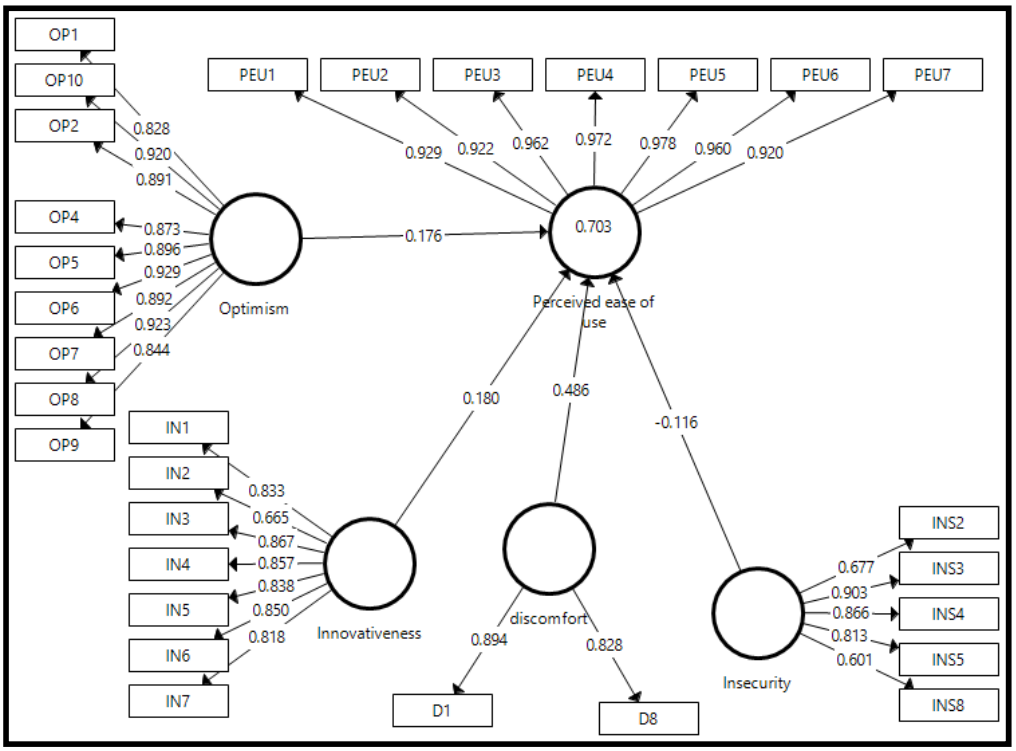
Appendix S: Construct Correlations

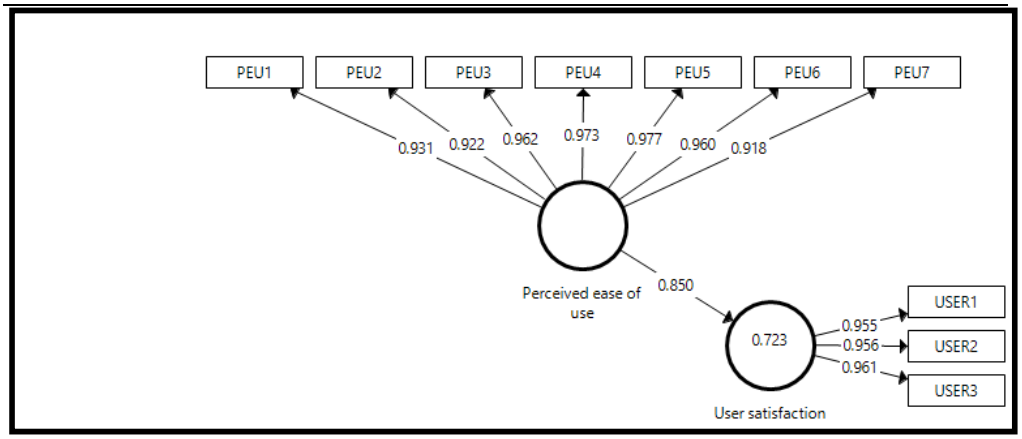
	Innovativeness	Insecurity	Optimism	Perceived ease of use	User satisfaction	discomfort
Innovativeness	0.821					
Insecurity	-0.485	0.780				
Optimism	0.676	-0.492	0.889			
Perceived ease of use	0.703	-0.558	0.695	0.949		
User satisfaction	0.642	-0.571	0.733	0.850	0.957	
discomfort	0.715	-0.550	0.699	0.801	0.689	0.861

Appendix T: Inner Model Results by size of R-Square

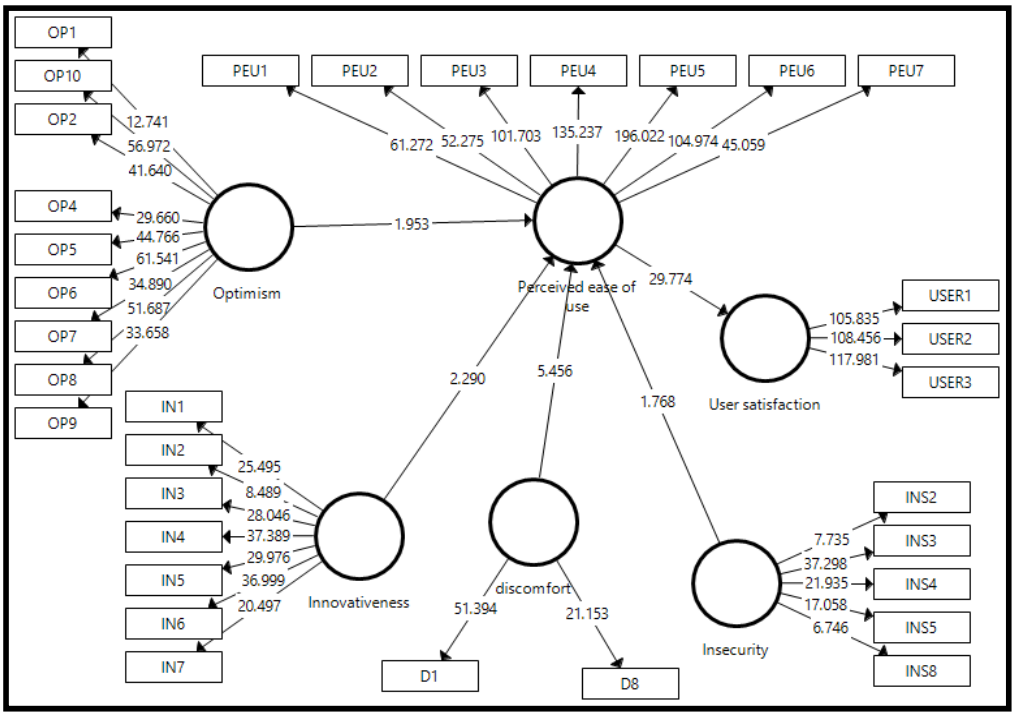
	Included	Excluded	f-squared	Effect size
R-squared	0.723	0.703	0.0722	**Small**

Appendix U: F-Square





Appendix V: T-value among the dependent variables and independent variables.



Appendix W: Path Coefficients for Hypothesis Testing

Hypothesis	Std Beta	Std error	T Value	LL	UL	Decision
Innovativeness -> Perceived ease of use	0.18	0.079	2.29	0.053	0.367	supported
Insecurity -> Perceived ease of use	-0.116	0.066	1.768	-0.28	-0.02	supported
Optimism -> Perceived ease of use	0.176	0.09	1.953	0.023	0.336	Not supported
Perceived ease of use -> User satisfaction	0.85	0.029	29.774	0.789	0.901	supported
discomfort -> Perceived ease of use	0.485	0.089	5.456	0.292	0.641	supported

Appendix X: Final Year Project Questionnaire

A Study on Technology Readiness and Acceptance of Sistem Maklumat Kastam (SMK) in Jabatan Kastam Malaysia.

Dear respondent,

We are final year undergraduate students of Bachelor of Business Administration (HONS) from Universiti Tunku Abdul Rahman (UTAR), Perak Campus. The purpose of this survey is to determine the effect of technology readiness and acceptance of Sistem Maklumat Kastam (SMK) among the customs officer, customs agents and other government agencies in Jabatan Kastam Malaysia. Your co-operation in answering those questions is very important and appreciated in helping our research.

Instructions:

1) There are THREE (3) sections in this questionnaire. Please answer ALL questions in ALL sections.

2) Completion of this form will take you approximately 10 to 15 minutes.

3) Please feel free to share your comment in the space provided. The contents of this questionnaire will be kept strictly confidential.

4) Please be informed that in accordance with Personal Data Protection Act 2010 ("PDPA") which came into force on 15 November 2013, Universiti Tunku Abdul Rahman ("UTAR") is hereby bound to make notice and require consent in relation to collection, recording, storage, usage and retention of personal information.

Acknowledgment of Notice

[ ] I have been notified by you and that I hereby understood, consented and agreed per UTAR notice (refer to Appendix I).

[ ] I disagree, my personal data will not be processed.

Name, ID, email address

.....

Section A: Respondent's Demographic Information

Sila jawab soalan berikut pada ruang yang disediakan mengikut arahan yang diberikan dan tandakan (√) bagi jawapan pilihan.

Please tick (√) for the most appropriate answer in the following items.

1. **1. Jantina / Please indicate your gender:**
   Tick all that apply.
   - ☐ Perempuan (Female)
   - ☐ Lelaki (Male)

2. **2. Umur / Which of the following age groups you belong to?**
Tick all that apply.

- [ ] 21 - 30
- [ ] 31 - 40
- [ ] 41 - 50
- [ ] 51 - 60

3. **3. Taraf perkahwinan / Marital status**
Tick all that apply.

- [ ] Bujang / Single
- [ ] Kahwin / Married
- [ ] Lain-lain / Others

4. **4. Taraf pendidikan tertinggi / Educational Level**
Tick all that apply.

- [ ] SPM
- [ ] STPM / Diploma
- [ ] Ijazah Sarjana Muda / Degree
- [ ] Lain-lain / Others

5. **5. Gred jawatan / Position grade**
Tick all that apply.

- [ ] WK19 – WK26
- [ ] WK27 – WK32
- [ ] WK41 – WK44
- [ ] WK48 – WK52

6. **6. Tempoh perkhidmatan / Length or Period of services**
Tick all that apply.

- [ ] 1 – 5 Tahun / years
- [ ] 6 – 10 Tahun / years
- [ ] 11 – 15 Tahun / years
- [ ] 16 Tahun ke atas / above

7. **7. Pendapatan / Salary**
Mark only one oval.

- ◯ RM 900 – RM1500
- ◯ RM 1501 – RM2500
- ◯ RM 2501 – RM3500
- ◯ RM 3501 – RM4500
- ◯ RM4501 Ke atas / above

Section B: Technology Readiness Index (TRI)

Sila jawab soalan berikut pada ruang yang disediakan mengikut arahan yang diberikan dan tandakan (√) bagi jawapan pilihan mengikuti skala berikut [(1) = sangat tidak setuju; (2) = tidak setuju; (3) = tidak pasti; (4) = setuju dan (5) = sangat setuju]

Please tick (√) for the most appropriate answer in the following items using 5 Likert scale [(1) = strongly disagree; (2) = disagree; (3) = neutral; (4) = agree and (5) = strongly agree]

i. Keyakinan / Optimism

8. **1. Sistem maklumat kastam memberikan pengguna lebih banyak kawalan ke atas tugasan seharian mereka. (SMK gives people more control over their everyday tasks).**
Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

9. **2. Proses pengikraran menggunakan SMK lebih mudah digunakan berbanding dengan pengikraran menggunakan borang. (The declaration process becoming easier through the use of SMK than using document.)**
Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

10. **3. Saya suka dengan proses pengikraran melalui sistem SMK kerana tidak terhad kepada waktu urusan kerja biasa sahaja. (I preferred with the declaration process via SMK system because it was not limited to regular business hours.)**
Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

11. **4. Saya lebih suka menggunakan sistem SMK berbanding dengan cara pengikraran menggunakan borang kastam. (I prefer to use SMK system than custom document as a method for declaration.)**
Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

12. **5. Saya suka sistem SMK kerana ianya memudahkan saya dengan hanya mengisi maklumat di ruangan yang telah sedia ada di dalam paparan sistem. (I like SMK system because it make me easier by only needed to fill in the information at the space provided in the display system.)**
Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

13. **6. Sistem maklumat kastam meningkatkan tahap kecekapan saya semasa bekerja. (SMK makes me more efficient in my occupation.)**
Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

14. **7. Saya mendapati sistem SMK lebih merangsangkan dari segi mental. (I find SMK to be mentally stimulating.)**
Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

15. **8. Dengan adanya SMK, ianya memberikan saya lebih banyak kebebasan untuk bergerak. (By having SMK, it gives me more freedom of mobility.)**
Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

16. **9. Sistem SMK boleh meningkatkan pungutan hasil bagi JKDM. (SMK system can increases the revenue collections for JKDM.)**
Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

17. **10. Dengan menggunakan sistem SMK, saya berasa lebih yakin kerana ianya berfungsi seperti yang saya arahkan. (By using SMK, I feel more confident because the systems functions according as I instructed.)**

Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

ii. Inovasi / Innovativeness

18. **1. Orang lain datang kepada saya untuk mendapatkan nasihat mengenai sistem SMK. (Other people come to me for advice on SMK system.)**

Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

19. **2. Rakan sekerja saya lebih arif menggunakan SMK berbanding dengan saya. (My colleagues were more skilled in using SMK than me [reverse scored])**

Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

20. **3. Secara umum, saya adalah antara yang pertama dijadikan rujukan mengenai sistem SMK di tempat kerja saya. (In general, I was among the first in my workplace that being made as reference to SMK system.)**

Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

21. **4. Biasanya saya boleh menggunakan sistem SMK tanpa bantuan daripada orang lain. (Usually I can figure out how to use SMK system without help from anyone.)**

Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

22. **5. Saya sentiasa mengikuti pindaan terkini ke atas sistem SMK dari masa ke semasa. (I always keep up with the latest version of SMK system from time to time.)**
Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

23. **6. Saya menikmati keseronokan dan cabaran dalam proses menggunakan sistem SMK. (I enjoy the challenging process of using SMK system.)**
Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

24. **7. Saya tidak mempunyai masalah dalam menggunakan SMK berbanding dengan rakan sekerja saya yang lain. (I find myself to have fewer problems than others in using SMK.)**
Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

iii. Ketidakselesaaan / Discomfort

25. **1. Sistem SMK sangat mudah dan jelas. (SMK system was easy and clear.)**
Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

26. **2. Kadang-kala, saya berfikiran bahawa sistem SMK tidak direka untuk digunakan oleh orang biasa. (Sometimes, I think that SMK are not designed to be use by ordinary people.)**
Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

27. **3. Panduan atau manual penggunaan sistem SMK tidak ditulis dalam bahasa yang mudah difahami. (Manual for using SMK system is not written in plain or understandable language.)**

Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

28. **4. Apabila saya mempunyai masalah capaian sistem SMK, saya tidak mendapat bantuan segera daripada pihak pembekal sistem. (When I was having difficulty to reach to the SMK system (system down), I did not received any immediate support from system provider.)**

Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

29. **5. Ia amat memalukan apabila pelanggan jabatan mendapati sistem SMK tidak berfungsi seperti yang diharapkan. (It is embarrassing when customer or client found out that SMK system did not function as they expected.)**

Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

30. **6. Berhati-hati dalam menggantikan proses pengikraran menggunakan borang (manual) dengan pengunaan sistem SMK kerana ianya boleh mengalami kerosakkan (gangguan server). (There should be caution in replacing the declaration process using document with SMK system because server disruption might happen.)**

Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

31. **7. Kebanyakan penggunaan sistem ini mempunyai risiko keselamatan yang tidak diketahui sehingga ianya mula digunakan. (Most of the time, the usage of this system consist of health or safety risks that are yet to discovered until people had used them.)**

Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

32. **8. Sistem SMK ini memudahkan jabatan untuk mengintip agen penghantaran dari melakukan kesilapan pengikraran barangan. (SMK system makes it easy for the departments to spy on the delivery agent mistakes during the declaration of goods.)**

Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

33. **9. Sistem SMK didapati sentiasa mengalami kegagalan atau kerosakkan (gangguan sistem). (SMK system seems to be down or damaged (server disruption) constantly.)**

Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

iv. Rasa Tidak Selamat / Insecurity

34. **1. Saya tidak menganggap pentadbiran sistem rangkaian atau sistem aplikasi SMK ini dapat diurus tadbir dengan baik. (I do not think that the system administration or application system of the SMK can be managed well.)**

Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

35. **2. Saya berasa tidak selamat untuk melakukan pengikraran barangan melalui elektronik. (I do not consider it safe to do any goods declaration online.)**

Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

36. **3. Saya bimbang bahawa maklumat pengikraran borang yang dimasukkan di dalam sistem akan sampai ke pihak yang lain bagi kegunaan yang salah. (I worry that the document's declaration information that I entered into the system will be send to other party with bad intention.)**

Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

37. **4. Saya berasa tidak yakin menjalankan proses pengikraran kastam yang hanya bergantung dengan sistem elektronik sahaja. (I am not convince in the custom's declaration process that only depends on electronic system.)**

Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

38. **5. Apa-apa transaksi melalui sistem elektronik perlu disahkan kemudian secara bertulis. (Any transaction through electronic system need to be confirmed later in black and white or written.)**

Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

39. **6. Setiap kali sesuatu benda menjadi automatik, saya akan menyemak dengan teliti bahawa mesin atau komputer tidak melakukan sebarang kesilapan. (Whenever something gets automated, you tend to check carefully that the machine or computer is not making mistakes.)**

Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

40. **7. Sentuhan manusia (manual) dalam apa-apa urusan adalah sangat penting. (The human touch (manual) is very important in any affairs or work.)**

Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

41. **8. Saya lebih suka berkomunikasi secara bersemuka dengan orang dan bukannya melalui mesin semasa urusan pengikraran barangan. (I prefer to talk in person rather than through a machine during the declaration of goods.)**

Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

42. **9. Apabila saya menyediakan maklumat melalui mesin atau secara Internet, saya tidak pasti maklumat tersebut akan sampai ke tempat yang sepatutnya. (If you provide information through a machine or Internet, you can never be sure that it really gets to the right place.)**
Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

Section C: User Satisfaction

Sila jawab soalan berikut pada ruang yang disediakan mengikut arahan yang diberikan dan tandakan (√) bagi jawapan pilihan mengikuti skala berikut [(1) = sangat tidak setuju; (2) = tidak setuju; (3) = tidak pasti; (4) = setuju dan (5) = sangat setuju]

Please tick (√) for the most appropriate answer in the following items using 5 Likert scale [(1) = strongly disagree; (2) = disagree; (3) = neutral; (4) = agree and (5) = strongly agree]

43. **1. Saya setuju penggunaan sistem SMK di tempat kerja saya diteruskan. (I agree to the continuance use of SMK system in my workplace.)**
Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

44. **2. Saya akan kembali ke SMK secara kerap jika ada proses pengikraran perlu dilakukan. (I will frequently come back to SMK if there was a declaration process that needed to be done.)**
Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

45. **3. Saya berniat untuk menerima maklumat atau tugas kerja dengan menggunakan SMK. (I intend to receive information or workload through the use of SMK.)**
Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

Section D: Perceived Ease of Use

Sila jawab soalan berikut pada ruang yang disediakan mengikut arahan yang diberikan dan tandakan (√) bagi jawapan pilihan mengikuti skala berikut [(1) = sangat tidak setuju; (2) = tidak setuju; (3) = tidak pasti; (4) = setuju dan (5) = sangat setuju]

Please tick (√) for the most appropriate answer in the following items using 5 Likert scale [(1) = strongly disagree; (2) = disagree; (3) = neutral; (4) = agree and (5) = strongly agree]

46. **1. Belajar cara penggunaan sistem SMK adalah mudah bagi saya. (Learning to use SMK system would be easy for me.)**
Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

47. **2. Saya mendapati bahawa pengikraran menjadi lebih mudah melalui sistem SMK. (I found that declaration becoming easier through SMK system.)**
Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

48. **3. Ia adalah mudah bagi saya untuk menjadi mahir dalam pengunaan sistem SMK. (It would be easy for me to become skillful at using SMK system.)**
Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

49. **4. Saya mendapati bahawa SMK adalah senang digunakan. (I would find SMK easy to use.)**
Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

50. **5. Interaksi antara saya dengan SMK adalah jelas dah mudah difahami. (My interaction with SMK would be clear and understandable.)**
Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

51. **6. Prosedur bagi sistem SMK adalah mudah difahami. (Procedure for SMK system is easy to understand.)**

Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

52. **7. Saya berasa mudah untuk mengetahui perjalanan proses pengikraran barangan melalui sistem SMK. (I would find it easy to know the course of goods declaration process through SMK system.)**

Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

53. **8. Ia adalah mudah bagi saya untuk mendapatkan maklumat pengikraran dari sistem SMK. (It would be easy for me to find out the declaration information from SMK system.)**

Mark only one oval.

	1	2	3	4	5	
Sangat tidak setuju / Strongly disagree	◯	◯	◯	◯	◯	Sangat setuju / Strongly agree

Kerjasama anda amat dihargai. Terima kasih untuk masa, pendapat dan komen anda.

Thank you very much for your participation.
Your time and opinion are greatly appreciated

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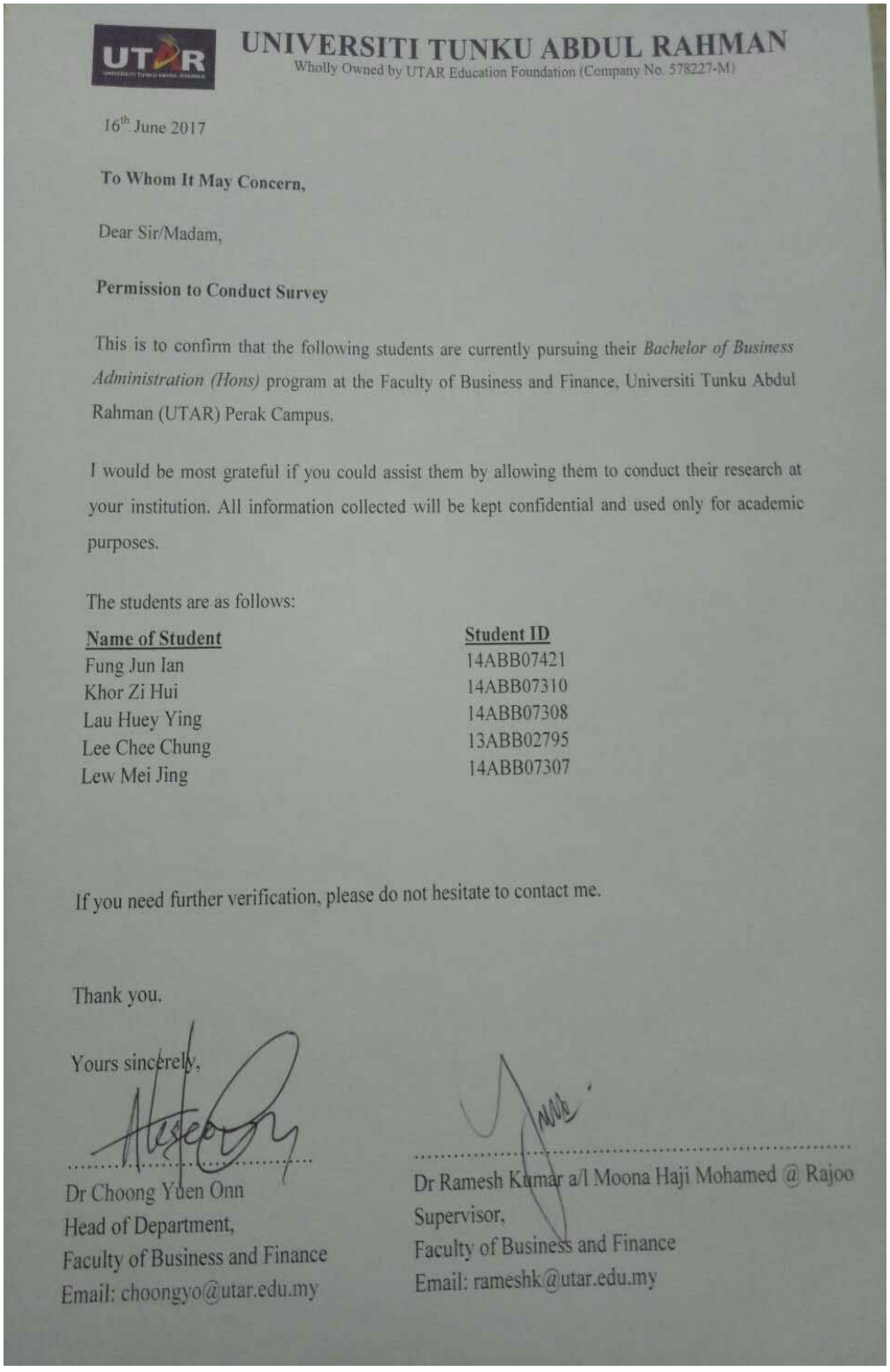
Appendix Y: Letter of Permission to Conduct Survey



UNIVERSITI TUNKU ABDUL RAHMAN
Wholly Owned by UTAR Education Foundation (Company No. 578227-M)

16th June 2017

To Whom It May Concern,

Dear Sir/Madam,

Permission to Conduct Survey

This is to confirm that the following students are currently pursuing their *Bachelor of Business Administration (Hons)* program at the Faculty of Business and Finance, Universiti Tunku Abdul Rahman (UTAR) Perak Campus.

I would be most grateful if you could assist them by allowing them to conduct their research at your institution. All information collected will be kept confidential and used only for academic purposes.

The students are as follows:

Name of Student	Student ID
Fung Jun Ian	14ABB07421
Khor Zi Hui	14ABB07310
Lau Huey Ying	14ABB07308
Lee Chee Chung	13ABB02795
Lew Mei Jing	14ABB07307

If you need further verification, please do not hesitate to contact me.

Thank you.

Yours sincerely,

Dr Choong Yuen Onn
Head of Department,
Faculty of Business and Finance
Email: choongyo@utar.edu.my

Dr Ramesh Kumar a/l Moona Haji Mohamed @ Rajoo
Supervisor,
Faculty of Business and Finance
Email: rameshk@utar.edu.my