# DETERMINANTS OF DEMAND ON LIFE INSURANCE IN PERAK. COMPARISON BETWEEN RURAL AND URBAN AREA

ΒY

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- (2) No portion of this research project has been submitted in support of any application for 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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Dedicated to

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### TABLE OF CONTENTS

	Page
Copyright Page	ii
Declaration	iii
Acknowledgements.	iv
Dedication	v
Table of Contents	vi
List of Tables	xiii
List of Figure	xv
List of Appendices	xvi
List of Abbreviation	sxviii
Preface	xix
Abstract	xx
CHAPTER ONE	INTRODUCTION1
1.0	Introduction1
1.1	Research Background2
1.2	Problem Statement
1.3	Research Objectives7
1.4	Research Questions
1.5	Hypotheses of the study9
1.6	Significance of the Study11
1.7	Chapter Layout12

1.8 Conclusion	13
----------------	----

2.0 Introduction14
2.1 Review of the Literature14
2.1.1 Dependent variable
Demand of Life Insurance14
2.1.2 Independent variable
2.1.2.1 Demographic16
2.1.2.1.1 Age
2.1.2.1.2 Educational Level
2.1.2.1.3 Income Level
2.1.2.2 Risk-averse
2.1.2.3 Product attributes
2.1.2.4 Financial literacy
2.1.2.5 Company's Reputation and Services
2.2 Review of Relevant Theoretical Models
2.2.1 Customer Value-Based Theory
2.3 Proposed Conceptual Framework
2.4 Hypotheses Development
2.5 Conclusion
2.5 Conclusion

CHAPTER THREE	RESEARCH METHODOLOGY	.39
3.0	Introduction	39

3.2	Data Collection Methods40	
3.2.1	Primary Data40	
3.3	Sampling Design40	
3.3.1	Target Population40	
3.3.2	Sampling Frame and Sampling Location41	
3.3.3	Sampling Elements42	
3.3.4	Sampling Technique42	
3.3.5	Sampling Size43	
3.4	Research Instrument	
3.4.1	Questionnaire Design	
3.4.2	Descriptive analysis (Pilot)	
3.4.3	Reliability Test (Pilot)45	
3.4.4	Normality Test (Pilot)46	
3.5	Constructs Measurement	
3.5.1	Scale of Measurement	
	3.5.1.1 Nominal Scale	
	3.5.1.2 Ordinal Scale	
	3.5.1.3 Interval Scale	
3.6	Data Processing	
3.6.1 Data Checking		
3.6.2	Data Editing	
3.6.3 Data Coding		
3.6.4 Data Transcribing		
3.7	Data Analysis Techniques51	
3.7.1	Descriptive Analysis	

	3.7.2	Scale Measurement	52
		3.7.2.2 Normality analysis	52
		3.7.2.2 Reliability analysis	52
		3.7.2.3 Pearson Correlation Analysis	52
		3.7.2.4 Multiple Regression Analysis	53
3.8	8	Conclusion	54

CHAPTER FOUR	DATA ANALYSIS55
4.0	Introduction55
4.1	Descriptive Analysis
4.1.1	Demographic Profile of the Respondents55
	4.1.1.1 Gender
	4.1.1.2 Age
	4.1.1.3 Marital status
	4.1.1.4 Education level
	4.1.1.5 Income level
	4.1.1.6 Occupation
4.1.2	Central Tendencies Measurement of Constructs
	4.1.2.1 Demand of life insurance
	4.1.2.2 Demographic
	4.1.2.3 Risk Aversion
	4.1.2.4 Product attribute
	4.1.2.5 Financial Literacy
	4.1.2.6 Company Reputation and Services
4.2	Scale Measurement

	4.2.1	Normality Analysis	68
	4.2.2	Reliability Analysis	69
	4.3	Inferential Analysis	70
	4.3.1	Pearson Correlation Analysis (Urban)	70
	4.3.2	Multiple Regression Analysis	74
	4.3.3	Pearson Correlation Analysis (Rural)	75
	4.3.4	Multiple Regression Analysis	78
	4.4	Conclusion	79
CHAPTE	R FIVE	DISCUSSIONS, CONCLUSION AND IMPLICATIONS	81
	5.0 Introd	uction	81
	5.1 Summ	ary of Statistical Analysis	81
	5.1.1 I	Descriptive Analysis	81
		5.1.1.1 Demographic Profile of the Respondents	81
	5.1.2	Central Tendencies Measurement of Constructs	82
		5.1.2.1 Demand of life insurance	82
		5.1.2.2 Demographic	82
		5.1.2.3 Risk Aversion	83
		5.1.2.4 Product attribute	83
		5.1.2.5 Financial Literacy	84
		5.1.2.6 Company Reputation and Services	84
	5.1.3	Scale Measurement	85
		5.1.3.1 Normality Test	85
		5.1.3.2 Reliability Analysis	85
	5.1.4	Inferential Analysis	86

5.1.4.1 Pearson Correlation Analysis (Urban area)	
5.1.4.2 Multicollinearity	86
5.1.4.3 Multiple Regression Analysis	87
5.1.4.4 Pearson Correlation Analysis (Rural area)	
5.1.4.5 Multicollinearity	
5.1.4.6 Multiple Regression Analysis	
5.2 Discussion of Major Findings	
5.2.1 Demand for life insurance	
5.2.2 Age	90
5.2.3 Education level	91
5.2.4 Income	91
5.2.5 Risk aversion	92
5.2.6 Product attribute	93
5.2.7 Financial literacy	94
5.2.8 Company's reputation and services	94
5.3 Implication of the Study	
5.3.1Managerial Implications	
5.4 Limitation of the Study	98
5.4.1 Sampling Location	98
5.4.2 Sampling Technique	98
5.4.3 Sampling Element	99
5.4.4 Sample Size	99
5.4.5 Resources Constraints	99
5.4.6 Unreliable Data from Respondents	100
5.5 Recommendations for Future Research	100

5.6 Conclusion	101
REFERENCES	
APPENDICES	112

### LIST OF TABLES

### Page

Table 1.1	Gross Premium and Percentage Changes	4
Table 1.2	Total Sum Insured and Premium Income	4
Table 2.2	Research model	34
Table 3.1	Penetration rate of Life Insurance and Takaful in Malaysia 2013	41
Table 3.2	Descriptive analysis for the demographic profile	45
Table 3.3	Reliability Statistics	46
Table 3.4	Skewness Measurement of All Items (Pilot)	47
Table 3.5	Rule of Thumb (Pearson Correlation Coefficient)	53
Table 4.7	Statement about the demand of life insurance between urban and	
	rural area	62
Table 4.8	Statement about the demographic between urban and rural area	63
Table 4.9	Statement about the risk aversion between urban and rural area	63
Table 4.10	Statement about the product attribute between urban and rural area	65
Table 4.11	Statement about the financial literacy between urban and rural area	66
Table 4.12	Statement about the company reputation and services between	
	urban and rural area	67
Table 4.13	Reliability Statistics for Constructs between urban and rural area	69

Table 4.14	Correlation Value between Independents Variable and Dependent Variable	70
Table 4.15	Model summary	74
Table 4.16	Summary of Regression Coefficients	74
Table 4.17	Correlation Value between Independents Variable and Dependent Variable	75
Table 4.18	Model summary	78
Table 4.19	Summary of Regression Coefficients	79
Table 5.1	Factors for the urban and rural areas	89

# LIST OF FIGURES

Page

Figure 2.1	The customer Value-Based Model	34
Figure 4.1	Percentage of Respondents based on Gender in Urban and Rural Area	56
Figure 1 2	Percentage of Percentents based on Age in Urban and Pural Area	56
Figure 4.2	recentage of Respondents based on Age in Orban and Rural Area	50
Figure 4.3	Percentage of Respondents based on Marital Status in Urban and Rural	
	Area	57
Figure 4.4	Percentage of Respondents based on Education Level in Urban and Rural	
	Area	58
Figure 4.5	Percentage of Respondents based on Income Level in Urban and Rural	
	Area	59
Figure 4.6	Percentage of Respondents based on Occupation in Urban and Rural	
	Area	60

## LIST OF APPENDICES

Appendix A	Four Tier Use to Describe Different Area in Malaysia				
Appendix B	Gross Premium for Conventional Life Insurance Company in Malaysia in	year			
	2011	112			
Appendix C	Gross Premium for Takaful Company in Malaysia year 2010	113			
Appendix D	Per Capital Life Insurance Premium Expenditures for Countries	113			
Appendix E	The Efficiency Scores from the Insurance Company and Demand of Life				
	Insurance in Malaysia	114			
Appendix F	The Efficiency Scores and Life Insurance Demand for Individual Insurance	ce			
	Companies in Malaysia	114			
Appendix G	Insurance Density per Capital Premium 2010	115			
Appendix H	Permission Letter to Conduct Survey	116			
Appendix I	Survey Questionnaire				
Appendix J	Total Population by Ethic group, Local Authority area and State, Malaysia	a,			
	2010.	122			
Appendix K	The formula and table for determining the sample size	123			
Appendix L	Demographic Profile of the Respondents	125			

Appendix M	Summary of Central Tendency of construct				
Appendix N	The Frequency and Percentage of 5-point Likert Scale between Urban and				
	Rural Area	127			
Appendix O	Skewness Measurement of All Items	131			

### LIST OF ABBREVIATIONS

IV	Independent Variable
DV	Dependent Variable
EDU	Education Level
INC	Income Level
DLI	Demand of Life Insurance
RA	Risk Aversion
РА	Product Attribute
FL	Financial Literacy
CRS	Company Reputation and Service

#### PREFACE

Life insurance provides protection to the insured's who faced any uncertainty in the protection period. The insured paid premium to the insurance company in exchange for protection in the form of guaranteed sum paid by insurance company to the insured upon any unfortunate occurrence happened on the insured person such as death, total permanent disability, or critical illness. Life insurance is a form of servicing and therefore life insurance companies should customized their life insurance products and services to serve different customers. Life insurance in order to understand the factors that contribute to the consumption of life insurance. As such, they can improve on their products that best suits the customers.

#### ABSTRACT

Life insurance provides safety and security in human life as life is full of changes and uncertainties. This reason has motivated us to study the demand of life insurance in both urban and rural areas in Perak, Malaysia. Also, there are numerous researches on demand of insurances in foreign countries, but none has examined the demand of life insurance in urban and rural areas in Malaysia. Several factors are used to determine the demand of life insurance, including age, education level, income, risk averse, product attribution, financial literacy as well as company reputation and services that auxiliary to conduct our model. The factors are analyzed throughout 500 survey questionnaires in an urban area and two rural areas. The valuable results can determine which factors are significant in urban area and rural areas respectively. Hereafter, insurance companies, insurance agents and insurance related industries in Malaysia can approach our study to create insurance policies that are suitable and acceptable by residents in both urban and rural areas.

# **CHAPTER ONE: RESEARCH OVERVIEW**

# **1.0 INTRODUCTION**

Life insurance is also known as life assurance. Originally, life insurance has an old practice of saving money for one's own funeral costs, therefore it is also called as life assurance. It is a contract between an insured (insurance policy holder) and an insurer (insurance company). The insurer promises to pay a designated beneficiary a sum of money in exchange for a premium, upon any unfortunate occurrence happened on the insured person such as death, total permanent disability, or critical illness. Besides that it also acts as a protection against the loss of income that would result if the insured face such occurrence. The named beneficiary receives the proceeds and is thereby safeguarded from the financial impact of the death of the insured. The policy holders buy insurance from an insurance company by paying a specific periodic amounts (premiums) for the term (duration or life) of the policy. If the insured dies before the term, a guaranteed sum will be paid to one or more named beneficiaries. If the insured survives longer than the term, he or she may receive the full or a part of the face amount of the policy. There are basically four main types of life insurance policies, which are term life insurance, whole life insurance, endowment life policy, and annuity.

This study will compare the respondent in urban area and rural area in Malaysia. According to World Bank data (2014), the last measured in 2010 shows that there are 27.80% of total population in Malaysia live in rural area. Rural population refers to people living in rural areas as defined by national statistical offices. It is calculated as the difference between total population and urban population. According to Jabatan Perangkaan Malaysia (2010), there are four tiers used to describe the different area in Malaysia. Tier 1 refer to an area consists of population 75,000 and more. Tier 2 consists of population from 10,000 to 74,999. Tier 3 consists of population from 1,000 to 9,999 while tier 4 consists of a population lesser than 1000. An identified area which has a population more than 10,000 people and at least 60 per cent of the population aged 15 years and above are involved in non-agricultural activities is considered as urban area (Tier 1 and 2). The agricultural activity includes the cultivation of

crops and nursery, breeding and rearing of all types of animals. This includes arrests, collecting, breeding, cultivation and husbandry of marine life as well. On top of that, logging, withdrawal and transportation of timber are also some example of agricultural activity. On the other hand, rural area in Malaysia refer to an area which have a population lesser than 10,000. This simply means that Tier 3 and 4 are considered as rural area. The four tier use to describe different area in Malaysia as show in appendix A.

# 1.1 Research Background

Malaysia is one of the top saving countries in the world protected under life insurance (Tan, Wong & Law, 2009). Nowadays, people have become more aware that life insurance is essential during contingencies in life. Insurance have become more valuable and beneficial in nowadays human life style. The demand of life insurance will become a motivating trend for revolution in Malaysia society. The life insurance industry will influence the Malaysian gross domestic product (GDP) (Sanmugam, 2013). Insurance industries in Malaysia are basically divided in two types which are life insurance and general insurance. General insurance compensate the losses of damage or devastation and the property insured. However, life insurance will provide protections to the insured's who face any uncertainty in the protection period. In life insurance, it is also separated to conventional and Takaful life insurance.

Some of the conventional life insurance companies in Malaysia are Great Eastern Life Assurance (Malaysia) Berhad, American International Assurance (AIA) Bhd, Allianz Life Insurance Malaysia Berhad, Prudential Assurance Malaysia Berhad, Maybank Life Assurance Berhad, Tokio Marine Life Insurance Malaysia Berhad, Zurich Insurance Malaysia, Manulife Financial and Hong Leong Assurance Berhad. The overall performance in 2011 for Great Eastern Life Assurance (Malaysia) Berhad, American International Assurance (AIA) Bhd and Allianz Life Insurance Malaysia Berhad are RM5,780 million, RM2,411.40 million and RM1,129.4 million respectively in term of gross premium (Hartwig, 2015). The gross premium for conventional life insurance company in Malaysia will show in appendix B. On the other hand, some of the best takaful companies in Malaysia are Etiqa Takaful Berhad, Takaful Ikhlas Berhad, Prudential BSN Takaful Berhad, ACR Retakaful Berhad, AIA Public Takaful Bhd, AmMetLifeTakaful Berhad, Hong Leong MSIG Takaful Berhad and HSBC Amanah Takaful (Malaysia) Berhad. Overall, the performance for Etiqa Takaful Berhad, Takaful Ikhlas Berhad and Prudential BSN Takaful Berhad RM1,956 million, RM786 million and RM353 million respectively in term of gross premium in 2011 (Jimin, 2011). The gross premium for takaful companies in Malaysia will show in appendix C.

The growth of insurance industry in Malaysia is earlier than the introduction of the Insurance Act 1963. The first branch of insurance foreign firm was operating in urban area but somehow all the customers came from urban area. The domestic insurance business was established in the year of 1950s and 1960s and led to increase of the demand of insurance rapidly. In the end of 1998, there were 51 domestic incorporate insurance companies and 7 foreign incorporated insurance businesses in Malaysia market. After that, Insurance Act 1996 was implemented on 1 January 1997 which replaced Insurance Act 1963. This new Act required the entire foreign insurer except for the professional companies transmit their Malaysia insurance businesses to public companies under the Companies Act 1965. In 2006, there were 8 life insurers, 26 non-life insurers and 8 life and non-life insurer in Malaysia (Ching, Kogid & Furuoka, 2010). However recently in this two years, the Financial Services Act 2013 ("FSA") and the Islamic Financial Services Act 2013 ("IFSA") had come into operation on 30 June 2013 (Financial Services Act 2013, 2013).Under this FSA and IFSA 2013, the Insurance Act 1996 had been excepted for section 147(4), 147(5), 150, 151, 144 and 224 shall continue to remain in full force and effect (Bank Negara Malaysia, 2015). Overall, the performance of gross premium for insurance industry has increased steadily from 2007 (RM9.066.70 million) to 2011 (RM11.729.10 million) with a percentage change of 2.9%. The total sum insured also increased from 2007 (RM722,679.40 million) to 2011 (RM94,8666.30 million). The premium income adopted from Bank Negara Malaysia in 2007 is RM18,893 million and 2010 is RM22,794.20million (Bank Negara Malaysia, 2011). The performance for gross premium and percentage changes will be shown in table 1.1 while the total sum insured and premium income will be shown in table 1.2.

Year	Gross Premium	Gross Direct	Net Premium	Retention Ratio	
		Premium		(%)	
2007	9,066.7	10,046.4	8,186.7	90.3	
2008 9,696.8		10,894.0	8,983.3	92.6	
2009	2009 10,184.1 11,531.2		9,376.9	92.1	
2010	10,981.1	12,584.7	10,127.9	92.2	
2011	11,729.1	13,596.1	10,858.9	92.6	
2007	4.0	4.2	5.4	n.a	
2008	6.0	8.4	9.7	n.a	
2009	5.0	5.9	4.4	n.a	
2010	7.8		8.0	n.a	
2011	6.8	8.0	7.2	n.a	

#### **Table 1.1: Gross Premium and Percentage Changes**

Source: Adopted from bank Negara Malaysia (2011)

Year	Total Sum Insured in Forced			Premium Income			
	RM	% of GNI	Per	RM	% of	Per	Per Member
	million		Capital	million	GNI	Capital	of
							employment
2007	722,679.4	115.1	26,569	18,893.0	3.0	695	1,657
2008	771,274.8	107.9	27,844	18,736.9	2.6	676	1,615
2009	791,360.8	119.0	28,364	19,831.3	3.0	711	1,710
2010	881,935.9	119.3	31,164	21,804.7	2.9	770	1,824
2011	948,666.3	114.2	33,170	22,794.1	2.7	797	1,861

#### Table 1.2: Total Sum Insured and Premium Income

Source: Adopted from bank Negara Malaysia (2011)

Insurance industry is now facing challenges from international economic situation when they are expanding their businesses. Insurance industry need to depend on the talented insurers to sustain in the competitive situations in worldwide financial sector. Malaysians in the past 10 years were not aware of the importance of life insurance as compared to the current situation. Recently, the insurance companies have implemented different kind of promotion tactics like

services branding tactic to catch the attention of Malaysians (Mohamad, Rusdi, Hashim & Husin, 2014). This services branding tactics will attract the attention of Malaysians from different marketing literatures and then people will be more focused on the products instead of the company services. A good service can only be provided to their customers when the products are able to catch the attention from the customers (Davis, 2007).

Nowadays, insurance companies need to pay more attention to their customers. Insurance companies need to have a good relationship with their customer as that is a good approach to boost up their customer trustworthiness and this will encourage a deeper business relationship .Therefore, the companies who have a good relationship with their customers can improve the company efficiency. Presently, insurance companies have provided many selections and alternatives to their customer. The insurance products have become more complex because customers today are more focusing on the advantages and custom-made services. In order to sustain in the fierce competition, insurance companies need to focus on the way to provide excellent customer service to their customer (Rajkumar & Kannan, 2014).

# **1.2 Problem Statement**

The penetration rate of conventional life insurance in Malaysia in 2012 is only at about 41% which is considered low according to report of LIAM (2013). It can be seen that the demand of life insurance in Malaysia is presently still far lower compared to the other developed Asian countries. This can be seen as the per capita life insurance premium expenditures for countries like Japan, South Korea, and Singapore are seven times higher than Malaysia. Among some selected Asian countries, Taiwan has the highest insurance penetration rate of 15.48% whereas the insurance penetration rate in Malaysia is only at 3.04% in the year 2010. The penetration rate is measured by life insurance premium income as a percentage of gross national product (GNP) (Loke & Goh, 2012). The table for the insurance penetration (Life insurance premium income as a % of GNP) in 2010 will be shown in appendix D. Mortality protection gap determines the extent to which families are underinsured when the primary wage earner is dead. The study found that the average mortality gap for each family member was about RM100,000 to RM150,000. This amount is actually quite far from that because RM34,000 is the per capita sum insured in Malaysia. Therefore, more efforts are required to

create awareness among Malaysians on the importance of insurance protection. Studies on the determinants of insurance purchase will provide more understanding for insurance companies in developing, marketing and the formation of policy relating to insurance products and services. By doing this, more people will be able to enjoy the benefits of insurance.

On the other hand, the determinants of life insurance consumption in Perak are still not fully understood. Different countries have different pattern of life insurance consumption and therefore it causes the differences in the determinants of life insurance. For example, Kaur and Kaur (2014) stated that customers who are satisfied will always persuade others to choose the same company over the others for life insurance products and services. They will also loyal to the company. Thus, accomplishing complete customer satisfaction will be the only way for the company to succeed. However, another research was carried out in India and not in Malaysia whereby the researchers ignored demographic factors like income and education which are equally important in determining insurance demand (Celik & Kayali, 2009).

Besides that, Wang (2010) stated that Product Attributes is one of the factors that contribute to the demand of life insurance. Product attributes in life insurance such as death benefit, risk coverage, premium price, premium flexibility, investment benefit, firms' financial strength and advertising will influence insurance purchasing. However, the research was not conducted in Malaysia either. Therefore, it is unsure that whether product attributes will affect the demand of insurance in Malaysia.

According to Huston (2010), financial literacy includes the knowledge and application of human capital relating to personal finance. The choice of insurance and the use of the health care system are influenced by basic financial literacy. Somehow, this study was not conducted in Malaysia and did not include important demographic factors which may affect the insurance purchasing.

Rural population in Malaysia was last measured at 27.80% in 2013 (World Bank, 2014). The rural population is a huge figure of approximately 7,939,184 people. It simply means that out of ten, two to three of them are living in rural area. This is a significant number and rural

population is a vital part of the country. However, some of the researchers like Loke and Goh (2012); Hwang and Greenford (2005); Zietz (2003) do not take locations as consideration in their study. Therefore, when investigating the factors affecting insurance purchasing in Malaysia, rural area should not be neglected. It is important to determine the causes that lead to demand of insurance in rural area. Thus, a comparison between factors affecting insurance demand of rural and urban area should be investigated in Malaysia.

# **1.3 Research Objectives**

## **1.3.1** General research objective

The main objective of this research paper is to identify the factors that influence the demand of life insurance in urban and rural areas in Perak.

# **1.3.2** Specific research objectives

- i. To study the influence of age on the demand of life insurance in urban and rural areas in Perak.
- ii. To study the influence of education level on demand of life insurance in urban and rural areas in Perak.
- iii. To study the influence of income level on the demand of life insurance in urban and rural areas in Perak.
- iv. To study the influence of risk aversion on the demand of life insurance in urban and rural areas in Perak.
- v. To study the influence of product attribute on demand of life insurance in urban and rural areas in Perak.

- vi. To study the influence of financial literacy on the demand of life insurance in urban and rural areas in Perak.
- vii. To study the influence of company's reputation and services on the demand of life insurance in urban and rural areas in Perak.

# **1.4 Research question**

### 1.4.1 General research question

What are the factors that influence the Demand of life insurance between urban and rural areas in Perak?

### **1.4.2 Specific research questions**

- i. Does age influence the demand for life insurance in urban and rural areas in Perak?
- ii. Does education level influence the demand for life insurance in urban and rural areas in Perak?
- iii. Does income level influence the demand for life insurance in urban and rural areas in Perak?
- iv. Does risk aversion influence the demand for life insurance in urban and rural areas in Perak?
- v. Does product attribute influence the demand for life insurance in urban and rural areas in Perak?

- vi. Does financial literacy influence the demand for life insurance in urban and rural areas in Perak?
- vii. Does company reputation and services influence the demand for life insurance in urban and rural areas in Perak?

# 1.5 Hypotheses of the Study

Independent variable: demographic (age, education, income), risk-averse, product attribution, financial literacy, company's reputation and services are significantly affecting the dependent variable (Demand of life insurance).

### 1.5.1 Age

The older the person, the higher the demand for life insurance. H<sub>0</sub>: Age will not influence on the demand for life insurance. H<sub>1a</sub>: Age will influence on the demand for life insurance in urban. H<sub>1b</sub>: Age will influence on the demand for life insurance in rural.

#### 1.5.2 Education level

The higher the education level, the higher the demand for life insurance.
H<sub>0</sub>: Education level will not influence on the demand for life insurance.
H<sub>2a</sub>: Education level will influence on the demand for life insurance in urban.
H<sub>2b</sub>: Education level will influence on the demand for life insurance in rural.

#### 1.5.3 Income Level

The higher the individual's income level, the higher the demand for life insurance.

H<sub>0</sub>: Income level will not influence on the demand for life insurance.

H<sub>3a</sub>: Income level will influence on the demand for life insurance in urban.

H<sub>3b</sub>: Income level will influence on the demand for life insurance in rural.

#### 1.5.4 Risk Averse

The higher the risk averse for an individual, the higher the demand for life insurance.

H<sub>0</sub>: Risk averse will not influence on the demand for life insurance.

H<sub>4a</sub>: Risk averse will influence on the demand for life insurance in urban.

H<sub>4b</sub>: Risk averse will influence on the demand for life insurance in rural.

#### **1.5.5 Product Attributes**

The better the product attributes, the higher the demand for life insurance.
H<sub>0</sub>: Product attribute will not influence on the demand for life insurance.
H<sub>5a</sub>: Product attribute will influence on the demand for life insurance in urban.
H<sub>5b</sub>: Product attribute will influence on the demand for life insurance in rural.

### **1.5.6 Financial Literacy**

The higher the financial literacy, the higher the demand for life insurance. H<sub>0</sub>: Financial literacy will not influence on the demand for life insurance. H<sub>6a</sub>: Financial literacy will influence on the demand for life insurance in urban. H<sub>6a</sub>: Financial literacy will influence on the demand for life insurance in rural.

### 1.5.7 Company reputation and Services

The better the company reputation and services, the higher the demand for life insurance.

H<sub>0:</sub> Company reputation and services will not influence on the demand for life insurance.

H<sub>7a</sub>: Company reputation and services will influence on the demand for life insurance in urban.

H<sub>7b</sub>: Company reputation and services will influence on the demand for life insurance in rural.

# **1.6** Significance of the Study

The objective of this study is to determine the determinants of demand of life insurance between rural and urban areas. Few groups of people would be benefited from this study. They are the risk management or insurance industry, retail or service industry and the general public.

The risk management or insurance industry can be benefited from this study by providing the companies and life planners the real factors why people do or do not want to participate in this field or demand for life insurance. When they get to know the reasons behind the reluctance of involving in life insurance, they can figure out the way to handle the prospect's objections and boost up their sales. On top of that, the insurance company can come out with new strategies to deal with the different people from different areas. Meanwhile, they can launch some new products to fulfill the public's needs based on the area they lived.

Besides that, the servicing industries which involve provisions of products and services to consumers can be benefited from this study. Companies in the servicing industry can understand better on the factors that influence the demand of life insurance. By understanding this, the servicing industry can understand the consumers' preferences on their products hence they can improve their sales and profits. Last but not least, the general public can be benefited from this study as well. With the awareness in risk protections from this study, they will have some basic knowledge on their risk management planning. They can seek for some advices from the life planners to get their tailor-made insurance plan which can fulfill their personal needs.

# **1.7 Chapter Layout**

This study comprises five chapters which are introduction, literature review, research methodology, data analysis and discussion and conclusion.

### 1.7.1 Chapter 1

This chapter outlines the overview of this research. Apart from a brief introduction on the background of this research, problem statements, research objectives and questions, hypotheses and the significance of the study are discussed in the following chapters.

### 1.7.2 Chapter 2

This chapter focuses on reviewing literatures and other studies which are related to the dependent and independent variables and theoretical models in this research. The hypotheses formed in previous chapters are supported by previous studies and the proposed conceptual framework is formulated based on previous theoretical frameworks.

### **1.7.3 Chapter 3**

This chapter explains the research methodology and the research design, data collection method, sampling design, research instruments and constructs measurement, data processing as well as data analysis.

## 1.7.4 Chapter 4

This chapter reveals the pattern of results using SAS analyses. The outcomes will be compared against the hypotheses developed research questions from previous chapters and the result of the data analysis will be presented.

### 1.7.5 Chapter 5

This chapter concludes the research by summarizing and discussion on major findings, implication and limitations of the study, and recommendations for future research.

# 1.8 Conclusion

This chapter provides an overview of the research objectives and questions, and significance of the research. Overall, this study provides valuable insights to the insurance industry as well as for those parties who are interested in this industry. Chapter two will discuss on the relevant literature, relevant theoretical models and conceptual framework.

# **CHAPTER TWO: LITERATURE REVIEW**

# 2.0 Introduction

The theory applied for this study will be explained in this chapter. The past literatures related to the topic will also be discussed. In addition, this chapter also includes a proposed conceptual framework and hypotheses developed for the research which will be tested in chapter three.

# 2.1 Review of the Literature

### **2.1.1 Dependent variable**

#### **Demand of Life Insurance**

The demand of life insurance has grown rapidly over the last ten years in Malaysia. Insurance has become an essential source of earning in the global (Li, Moshirian, Nguyen & Wee, 2007). The meaning of "demand" in economics can be explained as desire and ability to purchase the product or services. In this study, the demand of life insurance will be the dependent variable and respondent will use Malaysian currency which is ringgit Malaysia (RM) to purchase life insurance policy (Mahdzan & Victorian, 2013).

Demand of life insurance has been tested in different type of model performed by many researchers. According to the Beck and Webb (2003) life insurance had lower demand in developing countries due to the differences in economy development compared to developed countries. Formerly, people purchase the life insurance because life insurance will leave certain amount to the beneficiaries so that they are able to pay the cost of funeral of insured. Nowadays, life insurance has become a necessity.

The study of the demand of life insurance is difficult due to some factors such as purchaser perspectives toward life insurance, the country's social structure, and government's funds to help those needy and aged. These factors are essential part towards the life insurance consumption (Hwang & Greenford, 2005). The purpose of the life insurance is to diminish the economy liability through the current insurance welfares, and to distribute additional funds through the acquisition of asset accumulation products (Cummins, Tennyson & Weiss, 1999). Besides that, life insurance gives risk and financial facilities through individual financial planning. Formerly, the individual financial planning is not well-known in developing countries like the continent China, while the countries Taiwan and Hong Kong are showing the increase popularity of insurance. The people who live in China had been affected by religion and trust for example the Feng Shui, Taoism, Buddhism and unfounded belief. This type of religion and trust will affect the people to consume the life insurance (Hwang & Greenford, 2005).

According to Tan, Wong and Law (2009) the demand of life insurance is correlated with the efficiency scores of the insurance companies. The insurance company which has higher efficiency scores shows that company has a better life insurance demand from people and vice versa. With higher efficiency score, the insurance company will generate higher profit from the insurance policies. Meanwhile, consumers with higher ability to consume the life insurance leads to higher efficiency score. This leads to higher demand of life insurance policies. The efficiency score of the company is adopted from the average efficiency scores. The table and figure of the efficiency scores from the insurance company and demand of life insurance will be placed in appendix E and appendix F (Tan, Wong & Law, 2009).

In this study there are seven factors that will influence the demand of life insurance. The factors that will influence the demand of life insurance are age of respondents, income, level of education, risk aversion, product attribute, financial literacy and company reputation and services.

### 2.1.2 Independent Variable

#### 2.1.2.1 Demographic

#### 2.1.2.1.1Age

Baek and DeVaney (2005) reveal that age is an essential factor to purchase insurance. People tend to have higher awareness of life insurance as their age increases whereby they have enough income to purchase insurance. Kansra and Pathania (2012) stated that people become more aware about the health insurance in age between 41 and 50 years. Mahdzan and Tabiani (2013) also show that when people age increase, people tend to save more for their retirement period. Moreover, the aging people have lesser life-cycle expenditures in their life. They do not need to worry about schooling, wedding and household cost. It is theorized that age is absolutely linked to individual saving. Eisenhauer and Halek (1999) stated that the younger people have a greater proportion than elder people to purchase life insurance due to younger people are more conscious of the need for protection.

Sanmugam (2013) state that age is significant to people obtaining life insurance. He used logit model and marginal effects of the odd calculated the result using the e-view. The demand of life insurance is likely to be absolutely correlated to age. The demand for the life insurance has decline 0.018493 showing in the estimated coefficients of age log of the odds ratio. This point out that as respondent's age growths by one year, the log of the odds to buying life insurance policies will fall by 0.018493. This study shows that there is an adverse effect towards age and demand of life insurance. This result is based on the Malaysian public towards the significance and consciousness of the life insurance. Senior citizens do not actively purchase life insurance because when their age increases, the price of life insurance will more expensive compare to the younger people.

Ćurak, Džaja and Pepur (2013) created the hypothesis that there is no relationship between age and purchasing life insurance. This study collects the data through the 95 questionnaires. The result show that more than half of the respondents purchase life
insurance from the age of 31 to 41 years old, while around 26 respondents age of 18 to 30 years old do not purchase the life insurance. The respondent of age around 70 years and above have purchased the life insurance which is one out of five respondents. The relationship between age and demand of life insurance is studied based on Chi-Square test at significant level of 5 percent. The result demonstrates that the p-value is less than 5 percent which mean there is positive relationship between age and the purchasing of life insurance. The people in different age group will have different awareness to the importance of life insurance due to different age group will have different income. It can be said that the result of this study is not consistent with the hypothesis that set by this study.

Yusuf, Gbadamosi and Hamadu (2009) hypothesised that age does not influence people to purchase life insurance. This study used the survey method to explore the research purposes and find out the accuracy of research theories stated above. This study was conducted in Lagos, Nigeria with a simple random technique to choose 500 respondents. The result revealed that age of respondent has a significant effect on purchasing life insurance. The analysis used the least significant difference .The result indicates that people from age of 45 years and below perceived life insurance as less important compared to age 46 years and above. Actually, this study shows that the people whose age is around 56 and 65 years has more tendency to purchase life insurance because they are more conscious of the life insurance after their retirement. In the end, the result is not consistent with the hypothesis stated in the study, whereby age has a significant effect on the tendency to purchase life insurance.

In conclusion, we can said that age is an important factor influencing people towards the demand for life insurance which is supported by Yusuf, Gbadamosi and Hamadu (2009); Ćurak, Džaja and Pepur (2013) while Sanmugam (2013) stated that when age increases people are not actively purchase life insurance.

#### 2.1.2.1.2 Education Level

Hwang and Greenford (2005) said that the consumption of life insurance is unfortunate in Chinese culture because reflections to "premature death," which all people are not willing to face. Assuming people who are highly educated will have more knowledge regarding life insurance in offering financial safety. Then they will be conscious of the importance of life insurance. This study hypothesized that people's awareness to insurance is likely to be adapted by their level of education. Therefore, this study also assumes that those who have greater knowledge in insurance can eliminate the mythical fears. Tom, Ibok and Awok, (2012) stated that knowledge and awareness towards life insurance is a serious challenge faced by the insurance industry. As a result, the insurance industry can provide more information on life insurance through local media and publicity.

Yusuf, Gbadamosi and Hamadu (2009) stated that the status of education in Nigerians has significant effect towards the life insurance. People who are highly educated are more conscious towards life insurance compared to less educated ones. Li et al (2007) examine the effect of education level on the purchase of life insurance through cross section data for 30 OECD countries between 1993 and 2000. Li et al (2007) indicates that people who are highly educated are more conscious of the welfares of life insurance, and these people will be easier to obtain the insurance from bank or financial intermediaries compared to low levels of education. Therefore, life insurance companies can be targeted to the low level educated people to increase their company profit. Mahdzan and Victorian (2013) also reveal that individual who have higher education level has positive relationship with the demand for insurance.

Loke and Goh (2012) conducted survey to target 500 respondents who are at least 21 years old. The result shows that majority 70% of the respondents who are non-life insurance holders have tertiary education. The result reveals that the people who have tertiary education are more attracted by different types of innovation financial products such as capital management and wealth creation products instead of life insurance. The highly educated people are not interested in life insurance because they think that wealth management products can help them to manage their finance.

Tom, Ibok and Awok (2012) stated that the respondents of this study are from the insurance company. This study will use two stage sampling technique to assemble data. First stage is from four insurance companies, while second stage is 20 respondents carefully chosen from each insurance company based on their convenience at the time. This study will use the multiple regression analysis to examine the hypothesis toward the life insurance. The multiple regression technique was obviously characterized in four functional forms for example exponential functions, double log, semi log and log linear. The result revealed that are 35 percent who only had secondary education, 32.5 percent received tertiary education ,11.25 percent only had primary education ,while 2.5 percent of the respondent no received any formal education. The respondents who received one form of education level or other only 18.75 percent. Based on this study, we can say that whether the people have education level or no received any education also can involve in purchasing the life insurance.

In conclusion, we can know that education level is one of the factor that influence people to purchase insurance. Hwang and Greenford (2005), Tom, Ibok and Awok (2012); Yusuf, Gbadamosi and Hamadu (2009); Li et al (2007), Mahdzan and Victorian (2013); Loke and Goh (2013) supported that education is an important determinant toward life insurance.

#### 2.1.2.1.3 Income level

A study was conducted to examine the relationship between health insurance participant and its independent variables such as income, education, family size, sex, marital status, employment' status, nature of job, chronic illness and age of participant in Gweru, Zimbabwe. Probit model is formed by author to further discuss how independent variables were affecting its dependent variable. After obtained the data, a diagnostic test results was needed to ensure there is no multicollinearity and heteroscedasticity problems. The author found that there is a positive relationship between income, education, chronic illness and age of participant towards health insurance participant (Mhere, 2013). However, due to collinearity problems occur on

sex, marital status and employment status, these variables were dropped from the model formed. Meanwhile, family size and nature of job are insignificant to health insurance participant. Besides, heteroscedasticity was overcome through the robust standard errors. The data is obtained through questionnaires and focus on adult respondents. 703 out of 1200 questionnaires were returns in Gweru, Zimbabwe by using stratified sampling method.

Besides that, a study was conducted to find out the determinants of life insurance consumption in OECD countries. The independent variables included income, life expectancy, level of education, number of dependents, social security expenditure, foreign market share, financial development, inflation rates and real interest rates. The author has formed a model and discussed the relationship between variables. The author found that income is the most important factor that influences the consumption of life insurance products. As income increased by 1 percent, demand of the life insurance generally increased more than 0.6 percent. Other socioeconomic factors are important to influence the demand of the life insurance. Education level is correlated to demand of life insurance while social security expenditure is negatively related. Advanced financial development and competition can stimulate the consumption of life insurance. However, inflation and high real interest rates decreased the demand of life insurance. Author suggested that product market characteristic should take into consideration in the model (Li et al, 2007). 30 OECD countries' cross sectional data is used from 1993 to 2000 for the research purpose. Only 152 observations out of 240 samples are used mainly due to missing data and unavailable data for particular countries. Data of life insurance premium and foreign market share are acquired from OECD Insurance Statistical Yearbook. Income is calculated based on nominal GDP per capital in U.S. dollars, the data of GDP figures and exchange rates acquired from OECD Annual National Accounts 2002. The data of life expectancy acquired from World Competitiveness Yearbook, Population figures (number of dependents) are retrieved from OECD Economic Outlook: Annual and Semi-annual Data 2003, level of education acquired from UNESCO Statistical Yearbook, social security expenditure acquired from OECD Public Expenditure 2001, data of financial development acquired from IMF's International Financial Statistics, inflation figures acquired from the changes of percentage in the Consumer Price Index (CPI) for each

countries, and real interest rates are founded on Datastream that recorded the benchmark of government bond yields. However, those missing value is replaced by mean of overnight interbank rates that is also recorded in Datastream. Author used robust GMM estimation technique instead of OLS method to reduce biased estimation and lack of statistical significant in the data provided. For example, GMM estimators found heteroscedasticity problems in the model. The model is good fit as the adjusted R square is fall between 66 to 85 percent.

Moreover, a study was conducted to determine the relationship between income per capita (based on GDP per capital) and insurance premium by using S-curve. S-curve can used to explain the changes of insurance premium for a long time series for a given country. The international S-curve for life and non-life insurance penetration is found by using panel data. The data of life insurance covered 90 countries while the data of non-life insurance covered 88 countries, for the years 1970-1998. GDP per capita (in US\$) figures with proper exchange rate given by WEFA World Market Monitor was converted to 1997 as a base year. Purchasing power parity (PPP) is taken from World Bank. The author found that penetration of insurance and GDP per capita is correlated (Enz, 2000). However, the R-square for non-life insurance is double the value to life insurance. Based on data provided, the inflection point and income per capita with greatest income elasticity for life business is between US\$ 14000 to US\$ 15000 per capita correspondingly in the meantime, US\$ 5000 to US\$ 10000 per capita for non-life business. Life insurance has highest income elasticity up to 2 but non-life insurance has 1.5. Insurance premium volume based on income elasticity varies with real income per capita. The purchasing power parity (PPP) is used rather than market rate exchange rates in developing countries as non-traded goods play a significant role but it is not reflected in market exchange rates. The ratio of PPP to the market exchange rate decreases with GDP per capita. The reasons of negative deviations of life insurance are due to religious belief that does not support life insurance. The positive deviations can be found on Asian countries that are having weak banking system, Anglo-Saxon countries and ex-African colonies except Oman.

#### 2.1.2.2 Risk-averse

A study was conducted to explore the relationship between risk aversion and life insurance demand. The author used stratified random sampling to distribute the questionnaire in Tehran. The questionnaire consists of 2 strata which are people with insurance knowledge and people without insurance knowledge. The so called insurance knowledge is either people who are educated or people's occupation is related to life insurance. The validity of the questionnaires is gone through experts and professors insurance field. Also, the reliability coefficient of the questionnaire is tested using Cronbach's alpha. The author used logistic regression model to find out whether insurance knowledge will affect one's risk aversion and how a risk aversion people react to insurance. The result showed that there is a positive correlation between risk aversion and insurance demand (Ofoghi & HajipourFarsangi, 2013). This can be proven that 59.2% or 294 people have purchased life insurance. People with insurance knowledge have higher risk aversion compared to people without insurance knowledge. This indicated that people with insurance knowledge are more risk averse and have more demand for insurance.

Besides that, a study was conducted to discuss whether risk aversion will generally affect the potential of buying additional private insurance for hospital stays in German. In the matter of purchasing additional insurance, 90% of German population is enclosed by public health insurance but the public health insurance is not included the fees of hospital stay and doctor's fees. They used health behaviour as a proxy for degree of risk aversion in this observed application. This is because the degree of risk aversion is never conducted by any insurance firms or econometricians. A survey named as self-stated degree of risk aversion based on respondents' own health is conducted for getting information between insurances and insures. Author gets the data of the survey's result at German Socio-Economic Panel (SOEP) such as the number of overnight hospital visits from year 2003 to 2008. Then, propensity score method is used to find that male have a higher risk aversion than female tend to purchase additional health insurance than female even though male have fewer hospital visit after purchasing the insurance for six years (Schmitz, 2011). This is shown by the result that the number of risk-averse male purchase additional insurance

and hospital visits is more than the number of not risk averse male. However, female having same effect on purchase additional insurance whether she is risk-averse or not risk-averse. But the number of hospital visits of risk-averse female is more than not risk-averse female. Lastly, OLS regression is used as a robustness check for the effect of risk aversion on purchasing insurance and hospital visits.

On the other hand, a study was conducted to explore the effect of risk aversion resting on life insurance. The researchers found that life insurance also served as insurance to hedge against decrease in wealth with only loss of insurance premium cost and vice versa (Lee, 2010). A simple model is created by researcher to study life insurance in more than 2 state of the world. So, people with more risk averse will tend to invest more in life insurance and people with less risk averse will tend to invest less in life insurance.

Lastly, the study was conducted to explain the association between risky behaviours, reasons of insurance purchase and risk occurrence in insurance markets which included life insurance, acute insurance, annuities, long-term care insurance as well as Medicare supplemental insurance (Medigap). The author wanted to test on how risk tolerance related to risk occurrences and whether people have bought insurance (Cutler, Finkelstein & McGarry, 2008). However, risk tolerance cannot be measured. The proxies for risk tolerance are by behaviour measures such as smoking, drinking, job-based mortality risk, defensive health care as well as use of seat belt. These proxies are used to capture individual risk aversion. The author found that people who are more risky behaviour is not willing to have each type of insurance mentioned above. Besides, people with higher risk behaviour tend to have higher mortality and people who are more preventive on risky activities have lower mortality. The data is collected from Health and Retirement Study (HRS). The first cohort, original HRS cohort is used to study respondents from age 51 to 61 in 1992 for life insurance and private acute health insurance. The second cohort, sample of Asset and Health Dynamics (AHEAD) is used to study Medigap insurance, long-term care insurance as well as annuities among people between ages of 65 to 90 in 1995.

#### 2.1.2.3 Product attributes

Product attributes are the various characteristics of a product which satisfy some particular consumer needs. Product attributes provide a basis through which marketers differentiate and set its product (brand) apart from that of the competitors based on a specific attributes or often several attributes or product benefits (Zhu, Wang, Yan & Wu, 2009). Attributes are further used by the marketer as the basis for developing new products and for specific positioning strategies. Product attribute performs a major role in determining the brands that consumers will consider and give serious attention when making a purchase decision (Kotler, 2002) .By understanding precisely how consumer make purchase decisions and what they value in products and services, companies can work out optimum level of attributes that balance customer value expectation as a benchmark for resources allocation, costing and pricing decision (Akpoyomare, Adeosun & Ganiyu, 2012).

The product attributes in life insurance are such as death benefit, risk coverage, premium price, premium flexibility, investment benefit, firms' financial strength and advertising. Many researchers said that consumers demand for life insurance product is mainly because of the product attributes. They are Wang (2010); Hwang and Greenford (2005); Sebstad, Cohen, and McGuinness (2006); Guha-Khasnobis and Ahuja (2004); Arkotey, Osei and Gemegah (2011); Zietz (2003). Wang (2010) stated that Product Attributes is one of the contributions to the demand of life insurance. Six product attribute variables were used to test the demand of life insurance by using Probit Model Estimator Marginal Effect Analysis and Cluster Analysis. In the Probit Model Estimator, only three variables are significant to the demand of life insurance which is low premium, death benefit and investment benefits. However, the marginal effects analysis shows these variables is weakly influencing on probability of purchasing life insurance. On the other hand, the Cluster analysis showed that product attributes is the most significant factor influencing the consumers demand for life insurance.

The product attribute can be divided into two premiums which are premium price and premium flexibly affecting demand of life insurance. For an identical insurance product, the premium price may vary across life insurers. This premium price is based on an assumed interest rate, mortality rate, and expense rate as it is an estimated value. Due to the difficulties of determining the commercial price for life insurance, Ward and Zurbruegg (2005) set an actuarially fair price of life insurance by using life expectancy at birth. Browne, Chung and Frees (2000); Beck and Webb (2003); Zietz (2003) stated that there is a negative relationship between premium price and demand of life insurance. However, Hwang and Greenford (2005) stated that price is not the key factors in their research target area, because of the low level of marketing strategy and benefits. Browne, Chung and Frees (2000) detects the negative relationship between these variables because the premium of insurance is considered as a part of daily expenses. Therefore, a lower premium price is expected to encourage the demand for life insurance. This study stated that a consumer's decision regarding purchasing or not from a particular company could still be directly influenced by the perceived price and benefits. The demand for life insurance is inversely related to its prices. The same goes to Beck and Webb (2003); Zietz (2003). They supported the previous result that there price level is negatively affecting the demand of life insurance.

Other than that, premium flexibility is also related to the demand of life insurance. Premium flexibility means that the collections of the premiums are set according to the timing, the seasonal nature of the income flow of the different sectors and the erratic cash flow of their income (Arkotey, Osei & Gemegah, 2011). According to Arkotey, Osei and Gemegah (2011), the premium flexibility is one of the significant determinants of insurance demand. There is a positive relationship between these two variables. On top of that, Guha-Khasnobis and Ahuja (2004); Sinha (2002) stated that most of the informal workers do not have regular income, providing insurance to them requires the proper structuring of its price (premiums) in terms of cost, flexibility of payments and ease of collection. It is, therefore, very important that the timings of premium collection is structured to coincide with the cash inflows of low-income households. Additionally, Guha-Khasnobis and Ahuja (2004) conducted an analysis in India to find out the effect between the premium flexibility and the demand for life insurance. When referring to those low income people, premium of life insurance acts as a very significant proportion from their income. Hence, the flexibility in premium

collection has become a very important determinant for their decision on joining the insurance scheme. Some Africa researches found out that the demand for insurance services was reduced when the premiums need to be paid in immediate cash payments. Sinha (2002) also found that the rural customers such as farmers will pay a lump sum of premium during the harvest seasons. However for the urban customers, they will normally get a small sum of money regularly, and this caused premium flexibility to be a significant factor to be considered when they wanted to purchase life insurance.

#### 2.1.2.4 Financial literacy

Financial literacy is the notion of understanding money and its uses in everyday life. It includes an understanding of circumstances that need to be understood such as credit, appreciation and insurance. It is also the understanding of key concepts and financial terms which revolve around investing, managing funds to increase security and wealth. Another part of financial literacy is the ability to use understanding and knowledge to make better financial decisions which are beneficial (Wagland &Taylor, 2009).

Financial literacy has elements which includes, basic numeric skills like the ability to calculate interest rate on debt, return on investments, understanding the risk and rewards pertaining financial decisions. Financial literacy also includes the ability to understand basic financial concepts like time value of money, diversification and more (Widdwson & Hailwood, 2007). Financial literacy aids individuals by increasing their level of understanding on financial matters which allows them to process financial information and make better decisions regarding personal finance (Bhushan & Medury, 2013).

According to Huston (2010), financial literacy encompasses the knowledge and application of human capital relating to personal finance. Mccormack, Bann, Uhrig, Berkamn and Rudd (2009) proposed that basic financial literacy will influence a person's selection of insurance and the use of the health care system. Individual with more financial knowledge are more inclined to engage in a wider range of financial

practices (Hilgert, Hogarth & Beverley, 2003). According to Eling, Pradhan and Schmit (2014), a common way of assessing the financial literacy levels is through a set of questions developed by Lusardi and Mitchell (2006). In Lusardi and Mitchell (2006), a set of 3 questions were used to determine an individual's financial literacy levels. The first two question that set by Lusardi and Mitchell (2006) which are about the inflation and compound interest. This type of question can assist us to examine the respondent's basic understanding about the economic notion and have skills regard to the fundamental calculation. The third question is to examine the respondents understanding towards risk diversification and essential component for the investment choice. Based on the result, it can be said only 711 respondents out of 1269 get the first two questions. According to Moore (2003), most of the respondents do not fully comprehend the fundamental financial notion like the bonds, mutual funds and compound interest. It can be said that a lot of people do not understand the loans and mortgage.

The insurance company can enhance the life insurance product through the demand or supply side. Life insurance firms can increase the demand of life insurance by instilling financial knowledge among people. While from the supply side, the insurance company can analyze the consumer intention towards demand of life insurance and this will lead to an increase in financial marketing services achievement (Mahdzan & Victorian 2013). Mahdzan and Victorian (2013) hypothesized that financial literacy would have a significant impact on life insurance demand because more knowledge on financial matters will assist individuals in make better financial plans and well informed decisions on the allocations of their financial resources. To measure financial literacy, they used five items which respondents were asked to selfrate knowledge regarding life insurance. The five items involve the respondent understanding about the life insurance proposal, the insecurity of the life insurance proposal, whether the insurance products are appropriate for their needs and wants, and other financial products suitable according to their requirements. The five item will used the 5-point likert scale to measure which is from 1 meaning strongly disagree to 5 which is strongly agree. The study used a non-probability sampling where data was collected from a sample of 259 life insurance policy holders through

questionnaires. A multiple regression model was used with financial literacy as a dependent variable. The result however shows that there is no positive relationship between financial literacy and demand for life insurance. The author said that whether or not an individual is financially literate, they may still be aware of the perils they face in life and demand for life insurance.

Cole, Giné, Tobacman, Topalova, Townsend and Vickery (2013) used a brief description of a hypothetical insurance product whereby households were asked multiple questions on whether the policy would pay out. They used a number of hypothetical questions that respondents had gotten right. A survey was done on 219 respondents. It was found that the demand of insurance is greater in villages where previous payouts were made to households with previous experience with insurance and financial literacy. A linear probability models was used. They found that there was a positive correlation between financial literacy and insurance purchase.

Gine, Townsend and Vickery (2008), hypothesized that insurance participation will be lower if there is a lack of understanding on the insurance product. The study did a survey on a total of 5805 respondents. A weighted probit regression was estimated using sampling weights. The study found that financial literacy is significant in the demand for insurance as some households had trouble understanding insurance products and thus relied on recommendations.

Lusardi, Mitchell and Curto (2010) show that the people who financially illiterate are unlikely to saving and unlikely to plan for their future when retirement. It can be said that the financial literacy is essential for individuals to make financial decision every day. According to Delafrooz and Paim (2011), financial literacy can improve the capability of an individual to manage day to day financial stuffs and also can minimize the undesirable values of poor financial judgments. Shafii, Abiddin and Ahmad (2009) reveal that improving the financial literacy will cause individual to be interested in financial planning activities such as the demand in shares, real estate and insurance products. Nowadays, many adolescent wish that they can have more financial understanding when making the financial decision making (Lusardi, Mitchell & Curto, 2010). Nowadays, financial literacy is important to consumers and being recognized by government, educators and businesses. The best method to evaluate financial literacy is by finding out the determinants that will bring the greater influence to consumer (Kozup & Hogarth, 2008). The past studies shown that most of the researcher only focused on savings and investing whereby 16 out 52 surveys (30.8%) involved the questions between financial literacy and insurance (Huston, 2010). Tennyson (2011) conducted a survey questionnaire to evaluate the consumer understanding towards life insurance, self-reliance and ability to make the insurance decision. The data in this study was collected through a telephone survey which was managed by a qualified survey company. The respondents from insurance sector background are unqualified to answer the survey. The qualified respondent contacted by qualified survey firm through mail reach a respond rate of 50%. 370 completed surveys were acquired. The result from this study shows that the financial literacy is significant to demand of life insurance. Generally, the study found most of the respondents are poor in insurance knowledge and lack of confidence in insurance decision making. The author suggest that the education level is important to the people when they are making decision.

#### 2.1.2.5 Company's Reputation and Services

Corporate reputations can be defined based on three main categories which are reputation as awareness status, as an assessment and lastly as an asset. For those who consider reputation as awareness status, they define reputation based on their perception. This group refer to knowledge or emotions presentation for corporate reputation because they reflect corporate awareness. As for those who consider reputation as an assessment, this assessment includes judgment, estimation, evaluation or perception. The third cluster is whereby they refer reputation as a kind of value or importance for company. This group includes references such as intangible asset or resource, financial or economic condition for reputation. For them, reputation remains the most precious asset a company can have (Haery, Ghorbani & Zamani, 2014).

Insurance companies help to transfer risk from one party to another. It is a form of service. Therefore, it needs to focus on customer behaviour and characteristics. When

customers feel contented, they will always recommend their friends and family to buy insurance products from the same life insurance company. These customers remain faithful to the company too (Kaur & Kaur, 2014). A good service and image of company is found to have impact on the satisfaction level of customers and finally affect their purchase intention. A company's long term profit will be determined by customer's level of satisfaction. Staff who are committed to provide error-free services and able to deliver promises in time will establish customer satisfaction. Besides that, company is considered distinctive compared to others when their reliable and honest. Devasenathipathi, employees are Saleendran and Shanmugasundaram (2007) held a study in India to grade all life insurance companies by examining certain factors such as their perception towards life insurance, customers buying behaviour and also the effects of company privatization. The results show that the private companies provide more effective services and quick settlement. As such accessibility, good quality of products and timely services will affect customers buying behaviour. Besides that, Siddiqui and Sharma (2010) also examined the association between customer overall satisfaction and agents and company. The research proved that service quality had a strong relationship with customer overall satisfaction.

Since customers are becoming more demanding and knowledgeable, therefore, it is crucial for the insurance sector to find out the determinants which are important to the customers for selecting a company. To prevent the customers from leaving and at the same time being able to attract the new ones, it is very important that the insurance companies understand customers' needs so that a better service can be offered to them (Mathur & Tripathi, 2014). The author has used Factor Analysis to find out the influence on customer choice for an insurance company. The factors were rated according to the most influencing factors on affecting customers' decision when they are choosing insurance companies. Company services and infrastructure was ranked second among the nine factors being investigated. Thus, insurance company should focus on factors like service delivery, infrastructure and reputation of the company to hold on to existing customers and attract the potential new ones.

On the other hand, another study was conducted in Iran to investigate the impact of corporate reputation on customer purchase intention. The author has formed a conceptual model and discussed the relationship between variables for example, how corporate reputation affects customer trust and recognition and then how trust will influence purchase intention. The results showed that corporate reputation significantly and positively affects customer trust at the same time customer trust has positive and significant impact on intention to purchase products (Haery, Ghorbani & Zamani, 2014). Furthermore, it is found that customer trust also establish positive relationship with the tendency to pay premiums. Therefore, the study concludes that corporate reputation will develop customer commitment, affect their purchase intention as well as their tendency to pay premiums. 274 questionnaires were distributed between Iran Insurance Company car body insurers in Isfahan city using stratified sampling method. Researchers intended to manage all the questionnaires to the samples personally in order to collect and analyse all of points of view accurately. After collecting the distributed questionnaire, there are 230 out of 274 questionnaires were suitable for examining the studied hypotheses. As such, the data were analysed using SPSS and AMOS software through two levels of statistical tests which are descriptive level and perceptive level. Descriptive level includes frequency, percentage, cumulative percentage, mean and standard deviation while perceptive level which involves t-test, ANOVA, nonparametric test of Kolmogorov-Smirnov and nonparametric test of Friedman. Cronbachs' Alpha Coefficient has been used to determine the reliability of this questionnaire. 30 questions of 30 primary questionnaires have been entreated to the SPSS and then its coefficient was calculated that is 0.97.

On top of that, a study was held to find out the effect of quality of insurance services and reputation of insurance companies towards customers decision to purchase. The authors have found that perceived quality of insurance services has a positive impact on the perceived reputation of insurance company. A good quality insurance services, coverage and premiums have significant effect on user's purchase decision. Users also see reputation of the insurance company as a crucial determinant for their decision to replace their insurance company by another (Sebjan & Tominic, 2011). Online questionnaires were distributed to random users who were aged 18 years and above, legally able to buy insurance services in Slovenia or foreign insurance companies. Data was collected based on a convenience non-random sample of 200 users of insurance services from Slovenia. The analysis of the data set was based on exploratory factor analysis (EFA), regression analysis and t-test for two independent samples. The collected data was analysed using the statistical methods which is Statistical Package for the Social Sciences (SPSS) software.

Besides that, a study was held to investigate the influence of intrinsic brand cues in service industries particularly in the life insurance services. The intrinsic brand cues that are discussed in this study are reputation, service attributes and media reviews (Mohamad, Rusdi, Hashim & Husin, 2014). According to Gotsi and Wilson (2001), a good reputation will improve a firm's financial value and also influence purchase intentions. 200 sets of questionnaires had been hand out to 200 life insurance policy holders who live in Dungun and Kemaman region. However, only 132 sets had been returned. An exploratory factor analysis (EFA) was performed on service attributes, media reviews, company reputation and purchasing decision. All the resulting measures from EFA were then validated using CFA analysis. The researchers found that service quality has a positive relationship with customer purchase intentions. As it shows that service attribute is significant with purchase decision, however, company reputation on the other hand is not significantly related to purchase decision. This means that the consumers have less intention to purchase the insurance service by just looking at company reputation. This is somehow inconsistent with the findings by Gotsi and Wilson (2001) who stated that reputation will affect consumer's intention to purchase. This is because there are so many life insurance companies that are having almost similar reputation. Thus, company reputation will have a lesser impact on consumer's purchase decision. They may consider other factors in their decision of buying life insurance. Other determinants are such as influence from the agent and personal referral.

# 2.2 Review of Relevant Theoretical Model

## **2.2.1 Customer Value-Based Theory**

Customer Value-Based Theory of the firm would say that firms that have customervalue based organizational culture will have better performance. A customer valuebased firm would influence the consumers purchase intention. They are keen to learn about customers and their changing needs from time to time. Firms should acquire knowledge about customers and share that knowledge throughout the firm. Then, they can take action to deliver the customer value. When customers are satisfied, they will continue to use and demand for the products and services. As such, firms can gain competitive advantage over other firms. In this competitive environment, firms should develop new products or reformulating existing ones to retain their competitive advantage. Companies should engage in innovation process and organize themselves around customer value delivery processes. This will affect the customers' preferences and their demand towards the products and services offered by the firm. Market orientation is the culture that places importance on gaining profit and maintain customer value. At the same time they should not neglect other stakeholder's interest (Slater, 2001). This theory is also used by a few researchers such as Sarokolaee, Taghizadeh and Ebrati (2012) whereby firms price their products from customers' perspective to create customers' satisfaction, used by O'Cass and Sok (2015) to study how giving customized and unique services will create customers value and to satisfy them. Furthermore, Terho, Eggert, Haas and Ulaga (2015) used this theory to study how firms can improve their performance by having salesperson that can satisfy customers' long term needs and wants. The model of the customer value based will display in figure 2.1.

## Figure 2.1: The customer Value-Based Model

## The Customer Value-Focused Firm and Its Environment



Source: Adopted from Slater (2001).

# 2.3 Proposed Conceptual Framework





Adopted from: Mahdzan and Victorian (2013); Noora and Vakilalroaia (2013)

# 2.4 Hypotheses Development

The relationships between the dependent and independent variables have been discussed through the theoretical / conceptual framework. The hypotheses are as below:

### I. Hypothesis 1

H<sub>0</sub>: Age will not influence the demand for life insurance.

H<sub>1a</sub>: Age will influence the demand for life insurance in urban.

H<sub>1b</sub>: Age will influence the demand for life insurance in rural.

Mahdzan and Tabiani (2013) show that when people age increase, people will tend to save more money for their retirement period. Yusuf, Gbadamosi and Hamadu (2009) shows that the people whose age around 56 and 65 years has significant towards insurance due to they are more conscious of the life insurance after their retirement. Thus, the first hypothesis, H1 is formulated.

### II. Hypothesis 2

H<sub>0</sub>: Education level will not influence the demand for life insurance.

H<sub>2a</sub>: Education level will influence the demand for life insurance in urban.

H<sub>2b</sub>: Education level will influence the demand for life insurance in rural.

Li et al (2007) indicates that people who are highly educated are more conscious of the welfares of life insurance, and these people will be easier to obtain the insurance from bank or financial intermediaries. Mahdzan and Victorian (2013) also reveal that individual who have higher education level have higher demand for insurance. But Loke and Goh (2013) show that the highly educated people are not interested in life insurance because they think

that wealth management products can help them to manage their finance. The end result from these past researches led to the development of hypothesis 2.

#### III. Hypothesis 3

H<sub>0</sub>: Income level will not influence the demand for life insurance.

H<sub>3a</sub>: Income level will influence the demand for life insurance in urban.

H<sub>3b</sub>: Income level will influence the demand for life insurance in rural.

Li et al (2007) found that income level is the most important factor that influences the consumption of life insurance products whereby 1 percent increase in income leads to generally more than 0.6 percent increase in demand of life insurance. Mhere (2013) has found that income has significant influence on the demand of life insurance. These results from past researches helped to develop the third hypothesis, H3.

### IV. Hypothesis 4

H<sub>0</sub>: Risk averse will not influence the demand for life insurance.

H<sub>4a</sub>: Risk averse will influence the demand for life insurance in urban.

H<sub>4a</sub>: Risk averse will influence the demand for life insurance in rural.

Ofoghi and Hajipour Farsangi (2013) found that there is a positive correlation between risk aversion and insurance demand. This is because people with insurance knowledge have higher risk aversion compared with people without insurance knowledge. Schmitz (2011) found that male have a higher risk aversion than female in purchasing additional health insurance. Hence, the hypothesis 4 has been developed.

### V. Hypothesis 5

H<sub>0</sub>: Product attribution will not influence the demand for life insurance.

H<sub>5a</sub>: Product attribution will influence the demand for life insurance in urban.

H<sub>5b</sub>: Product attribution will influence the demand for life insurance in rural.

Wang (2010); Hwang and Greenford (2005); Sebstad, Cohen, and McGuinness (2006); Guha-Khasnobis and Ahuja (2004); Arkotey, Osei and Gemegah (2011); Zietz (2003) found that product attribute has a positive relationship with insurance demand. Product attribute plays an important role in determining the brands that consumers will consider and serious attention will be given when making a decision to purchase insurance (Kotler, 2002)

### VI. Hypothesis 6

H<sub>o</sub>: Financial literacy will not influence the demand for life insurance.

H<sub>6a</sub>: Financial literacy will influence the demand for life insurance in urban.

H<sub>6b</sub>: Financial literacy will influence the demand for life insurance in rural.

Bhushan and Medury (2013) noted that financial literacy would help individuals increase their understanding on financial matters which allows them to make better decisions regarding personal finance. Mahdzan and Victorian (2013) said that individuals who have higher financial literacy tend to engage in financial planning activities. Thus, based on the past research show that financial literacy will influence the demand of life insurance, so hypothesis 6 has been developed.

#### VII. Hypothesis 7

H<sub>0</sub>: Company reputation and services will not influence the demand for life insurance.

H<sub>7a</sub>: Company reputation and services will influence the demand for life insurance in urban.

H<sub>7b</sub>: Company reputation and services will influence the demand for life insurance in rural.

Siddiqui and Sharma (2010) show that customer satisfaction towards agents and company had a deep relationship with the people who purchase life insurance. Haery, Ghorbani and Zamani (2014) showed that corporate reputation significantly and positively affects customer trust at the same time on intention to purchase products. Therefore, the hypothesis 7 is formulated.

# 2.5 Conclusion

The conceptual framework is developed after reviewing relevant theoretical model and past literature reviews. Besides, the proposed hypotheses will be tested in chapter four. Chapter three will discuss the methodologies used to conduct the study in detail.

# **CHAPTER THREE: METHODOLOGY**

# 3.0 Introduction

In this chapter, the methodology employed under this research will be presented. A survey will be conducted in two areas, urban area and rural area to examine the relationship between demand of life insurance (dependent variable) and the independence variables – demographic (age, education and income), risk aversion, product attributes, financial literacy and company reputation and services. 500 survey questionnaires will be hand out to residents in urban as well as rural areas. The research's statistical results will be collected, observed, analysed and presented via SAS software.

# **3.1 Research Design**

Quantitative research is used as the data is generated through the survey method conducted in urban and rural areas (Saunders, Lewis & Adrian, 2012). Quantitative research consists mainly of numbers in measurement of education research such as questionnaires survey. This is because a large number of data will be generated from the questionnaires survey by asking a series of questions to the respondents and the result will be gathered, analysed, presented in a form of model (Faculty.londondeanery.ac.uk, 2015).

This is an explanatory study as this research will explain the casual correlation between independent variables and dependent variable in the study. Demand of life insurance (dependent variable) and the independent variables – demographic (age, education level and income level), risk aversion, product attributes, financial literacy and company reputation and services. This is a cross-sectional data as there is only single point of time to be studied. The data is collected at May 2015 by distributing self-administer questionnaires to respondents in urban area (Ipoh) and rural areas (Tanjong Tualang and Malim Nawar). Also, this is descriptive study as the data is collected once and describe it accurately based on data collected (Saunders et al., 2012).

# **3.2 Data Collection Method**

## 3.2.1 Primary Data

This study uses primary data for the research. Therefore, survey questionnaire will be used to collect the primary data from residents in urban and rural areas. In addition, survey questionnaires will be distributed to respondents in Ipoh, Tanjong Tualang and Malim Nawar.

# 3.3 Sampling Design

## 3.3.1 Target Population

According to report of LIAM (2013), the penetration rate or insured rate of life insurance and takaful in Malaysia in 2013 is 56%. This 56% of population would be the target population for this study. The insurance refers to life insurance and Takaful insurance while general insurance is excluded. Table 3.1 is about the penetration rate of life insurance and takaful in Malaysia 2013.



#### Table 3.1: Penetration rate of Life Insurance and Takaful in Malaysia 2013

Source: Insurance Annual Reports from 1990-2012.

### **3.3.2 Sampling Frame and Sampling Location**

Sampling frame is not applicable in this study since each element of the population is unknown. Therefore, non-probability sampling technique is used to collect the sample. Questionnaires were randomly distributed to respondents in shopping malls and commercial areas and offices. Perak is chosen because the location is accessible. Tanjong Tualang and Malim Nawar were selected to represent rural area in Perak while Ipoh is selected representing urban area. According Jabatan Perangkaan Malaysia (2010), an area with a population of more than 10,000 is considered as urban area while an area with a population less than 10,000 is considered as rural area. According to Majlis Bandaraya Ipoh (2010) show that Tanjong Tualang and Malim Nawar consist of a population of 983 and 2918 respectively while Ipoh is has a population of 434,204. Ipoh has covered the total population of targeted areas up to 99.11%, Tanjong Tualang has covered 0.22% and Malim Nawar has covered 0.67%. These areas are chosen as target location to determine the factors affecting demand of life insurance in Perak, a comparison between urban and rural area. Other locations in Perak were not included in this study due to time and budget constraints. The table for the population will be shown at Appendix J.

## **3.3.3 Sampling Elements**

According to report of LIAM (2013), the penetration rate of life insurance in Malaysia in 2012 is only 41.22% and the combined life insurance and takaful have a penetration of 56% in 2013. The table of penetration ratio will be show in table 3.1. The 56% would be the target respondents in this study. This insurance penetration or density rate in Malaysia is relatively low compared to other Asian countries. Additionally, Loke and Goh (2012), also support this statement. They said that insurance density is measured by the per capita premium income derived from insurance policy. The insurance density in Malaysia is at USD141 in the year 2010 compared to Japan at USD 910 which is the highest among the selected Asian countries. The table for the insurance density per capital premium 2010 will be show in appendix G. Malaysia is left behind Singapore, Hong Kong, Taiwan and South Korea as well. This study would like to find out the factors affecting the demand of insurance among this 56% of insured population. The reasons behind the low penetration rate in Malaysia however needed to be further studied by future researchers. Therefore, the unit of analysis for this research is those who are insured or demand for life insurance in Malaysia.

## 3.3.4 Sampling Technique

Sampling technique is needed because the population of Perak state is large and it may consume a lot of resources to reach all the respondents in the population. Sampling is necessary in situations whereby it is not practicable to survey on the whole population due to limited budget and time (Saunders et al, 2012). In this study, convenience sampling technique is used and it is a type of non-probability sampling technique. This sampling technique costs less and consumes the least amount of time to the researchers. It helps the researchers to randomly select respondents that are easiest to recruit (Saunders et al, 2012).

## 3.3.5 Sample size

Sample size is the number of respondents included in a research. According to some researchers like Annamalah (2013); Loke and Goh (2012); Suneja and Sharma (2008) they used 400 to 500 respondents as the sample size in their study. On top of that, Krejcie and Morgan (as cited in Bartlett, Kotrlik & Higgins, 2001) had created a formula to determine the sample size in research activities. This will be placed in Appendix K. According to Krejcie and Morgan (as cited in Bartlett, Kotrlik & Higgins, 2001), they showed that the sample size for Ipoh, Tanjong Tualang and Malim Nawar should be 380, 276 and 340. According to the formula separately in these three areas, the total sample size will be around 1,000. Due to the time and budget constraints, in this study, it has been decided to sum up all the population in these areas and determine the total sample size according to Krejcie and Morgan (as cited in Bartlett, Kotrlik & Higgins, 2001) table. The suitable sample size according to the table is 383 and finally 500 sets of survey questionnaires were distributed (250 (50%) for Ipoh respondent and 250 (50%) for Tanjong Tualang and Malim Nawar). It is expected to collect back around 420 sets of correctly filled up questionnaire to represent the entire targeted population.

## **3.4 Research Instrument**

In this research, the technique used to gather the data will be the self-administered questionnaire method. Self-administered questionnaires method is commonly distributed to respondents. The survey questionnaire will be distributed to the people who stay in rural and urban in Perak. The survey questionnaires are taken from various past literatures which are related to this topic.

The questionnaires are distributed to the respondents after the pilot test for this research is conducted. According to Hazzi and Maldaon (2015), pilot study used to disclose some logistics issues before proceed to the study, the result of pilot study can be notify as possibility and recognize qualification for the research. However, objective for pilot test is to investigate the probability of the intended method for the researchers to use in the research

(Leon, Davis & Kraemer, 2011). 50 samples were collected for pilot test from the respondent before the study commenced. The pilot test in this study will use descriptive analysis to test the demographic factors which include age, income and education and the dependent variable and independent variable will use reliability test of Cronbach's alpha. The pilot study also includes the normality test to test for the skewness and kurtosis.

### 3.4.1 Questionnaire Design

The survey questionnaires involved two sections with a total of 27 questions. Section A in the questionnaire is about the respondent demographic information. This section consists of 7 questions which include respondents' information such as location, gender, age, marital status, education, income and occupation. Section B of the questionnaire consists of 16 questions for independent variable and 4 question for dependent variable. The dependent variable for the questionnaire is demand of life insurance and independent variable includes risk aversion, product attribute, financial literacy and company reputation and services. The dependent variable and independent variables will use the 5-point likert scale to measure.

## **3.4.2** Descriptive analysis (Pilot)

The researchers use the descriptive study to review as well as to describe the data after collecting the survey questionnaire. According to the Investopedia, the descriptive analysis helps researchers to summarize a lot of data in a simpler way. The pilot test in this study will use one way frequency to test the demographic profiles which include age, income and education. The one way frequency will use frequencies and percentages to determine the results.

Profile	Categories	Frequency	Percentage
Age	18-25	4	8%
	26-32	15	30%
	33-37	14	28%
	38-45	9	18%
	46-55	8	16%
Income	<rm1500< td=""><td>1</td><td>2%</td></rm1500<>	1	2%
	RM1501-RM3000	6	12%
	RM3001-RM4500	16	32%
	RM4501-RM6000	20	40%
	>RM6001	7	14%
Education	Primary	3	6%
	Secondary	5	10%
	Diploma	18	36%
	Degree	17	34%
	Master	5	10%
	Others	2	4%

 Table 3.2: Descriptive analysis for the demographic profile

Source: Developed from the research

## 3.4.3 Reliability Test (Pilot)

Reliability is an important test for researchers who collect primary data and need to conduct the pilot test which has previously been established. Though, reliability is to measure the consistent measurement across time and through the different type of instruments (Bajpai & Bajpai, 2014).

The most suitable way to test the reliability test is Cronbach's alpha which is used to estimate the model through the different substantive field within a single construct. Other than that, Cronbach's alpha can also measure the internal constancy of scale, which describes the extent to all the items of scale measure the same construct (Tavakol & Dennick, 2011).

According to Griffee (2012) the rule of the Cronbach's alpha of 0.3 means that at the threshold, 0.5 or higher means that it is adequate and 0.7 or higher means that reliability is high. George and Mallery (2003) have stated that a more detailed rule for the compute of different levels of Cronbach's alpha like less than 0.5 means unacceptable, greater than 0.5 means poor, greater than 0.6 means questionable, greater than 0.7 means acceptable, greater than 0.8 means good while greater than 0.9 means excellent.

This study will choose to use the guideline according to George and Mallery (2003) because the rules stated is more accurate and detail. Table 3.3 will show all the dependent and independent statistics according to the absolute value which is more than 0.7, the pilot test shows that the questionnaires are reliable.

Construct	No of Constructs' Item	Cronbach's Alpha
DLI	4	0.798368
RA	4	0.821182
РА	4	0.782319
FL	4	0.788094
CRS	4	0.829607

#### **Table 3.3: Reliability Statistics**

Source: Developed for the research

### 3.4.4 Normality Test (Pilot)

Many researchers consider that checking normality is not an important issue when conducting a pilot study. The present work, however, believes that checking normality is also one of the most important quantitative methodological issues the researchers should take into account when conducting the pilot and the main study (Hazzi & Maldaon, 2015).

Normality test will also performed the pilot test result in this study where the skewness and kurtosis value will be shown in the Table 3.4. According to Kline (as cited in Perare, Khatibi, Navaratna & Chinna, 2014), the value for skewness and kurtosis should be  $\pm 3$  and  $\pm 10$  respectively. Therefore, the dependent and all independent variables for the pilot test will be normally distributed.

Variables	Item	Skewness	Kurtosis
Demographic	Age	0.20761661	-0.9170945
	Income	-0.3544221	-0.16464
	Education	-0.0670159	0.31094737
Demand of Life Insurance	DLI 1	-0.6630123	0.61657288
	DLI 2	-0.9318479	0.36715194
	DLI 3	-0.6483336	-0.3267088
	DLI 4	-0.2072478	-1.040918
Risk Aversion	RA 1	-0.3537449	-0.7260755
	RA 2	-0.23934094	-0.9652164
	RA 3	-0.347969	-0.6472657
	RA 4	0.17191828	-0.642439
Product Attribute	PA 1	-0.5675505	-0.4112192
	PA 2	-0.5787982	-0.3222665
	PA 3	-0.2661527	-1.0330237
	PA 4	-0.2024128	-0.5122544
Financial Literacy	FL 1	0.19632217	-1.0464948
	FL 2	-0.2018177	-0.7707254
	FL 3	-0.1493372	-0.6620061
	FL 4	0.11449209	-0.58803
Company Reputation and	CRS 1	-0.6211797	-0.5935936
Services	CRS 2	-0.8291779	0.26932311

## Table 3.4: Skewness Measurement of All Items (Pilot)

CRS 3	-0.4869813	-0.5579016
CRS 4	-0.5064875	-0.5856428

Source: Developed for the research

## 3.5 Constructs Measurement

This study consists of five independent which are demographic (age, income and education), risk aversion, product attributes, financial literacy and company reputation and services and one dependent variable which is the demand of life insurance. The questionnaire consists of 27 questions to measure all the variables. All the questions will use the five point likert-scales except for the demographics information. The likert-scale is used in this study because it is widely used to compose survey and it will be ranked from 1 (strongly disagree) to 5 (strongly agree).

### **3.5.1 Scale of Measurement**

Scale measurement involves four level of measurement which are nominal scale, ordinary scale, interval scale and ratio scale. The interval and ratio scale will be assorted as metric scale while the nominal and ordinary scale will be classified as non-metric scale.

### 3.5.1.1 Nominal Scale

Nominal scale is the weakest scale of measurement and is also exposed to classified level. The nominal scale can refer to as a type of mutually exclusive which means it only can be placed in one category and cannot be placed in other category. Nominal scale can be divided into two types which are verbal or numeric labels. The nominal scale can be considered as the weakest scale due to nominal scale data cannot be added or subtracted reasonably and cannot be examined with the other strong statistical techniques (Gavin, 1996).

## 3.5.1.2 Ordinal Scale

Ordinal scale consists of all the requirements of nominal scale and consists of the category of order. If the categories of the scale are in order, it can be considered as ordinal scale. The category for the use of ordinal scale is correspondent numbers. Ordinal scale included the labelled or name categories in the ranked or ordered and this cannot be characterized as quantities. The ordinal scale is used to measure the qualitative variables that are subjected to the nonparametric statistical test. Ordinal scale is a stronger scale measurement compared to the nominal scale due to the variable is in ordered and ranked form (Gavin, 1996).

### 3.5.1.3 Interval Scale

Interval scale has included all the qualifications of the ordinal scale with the additional advantage of a recognized and the fixed quantity between the distance and items. Interval scale allows the distance and values to be more significant because of the consistent unit. An interval scale can be used on stronger statistical techniques because the data acquired on interval scale are exposed to all mathematical operations excluding the adoption of ratios (Gavin, 1996).

# 3.6 Data Processing

The data processing is prepared before the research data is being evaluated. It consists of data checking, coding, entering and transcribing. A total of 500 sets of questionnaires were being distributed to the respondents in rural and urban area but only 400 sets of questionnaires have been collected and tested by using Statistical Analysis System (SAS) Enterprise Guide 5.1.

# 3.6.1 Data Checking

Data checking is an important step in data prearrangement. Data checking involves the legality and completeness of the data. A total of 500 sets of questionnaires were hand out to the people who stay in urban and rural area in Perak. However, only 400 sets will be processed. The unprocessed 100 sets are due to missing data and some unqualified respondents. The 100 sets have to be excluded to avoid misrepresentation in the data analysing process.

## 3.6.2 Data Editing

Data editing means the data collected should be edited in advance before presenting it as information. This procedure is to assure the data provided is correct, complete and constant (Statcan.gc.ca, 2013).The researchers will conduct data checking on respondents who miss out the important question or misunderstand the questions. Researchers will then adjust the data to become more complete, accurate, and constant.

## 3.6.3 Data Coding

In this research SAS Enterprise Guide 5.1 will be used for data coding. The questionnaires include two sections which are section A and B. For example, the demographic in section A, the question ask about the gender of male and female, the coded number will be "1" for male while "2" for female. In section B of the 5-point likert scale, coded number "1"will be strongly disagree, coded "2" will be disagree and so on.

## **3.6.4 Data Transcribing**

All the data collected from the questionnaires will change to coded data and transcribed using the data analysis software which is the SAS Enterprise Guide 5.1 to generate the result. The generated result will be used in Multiple Linear Regression analysis and Pearson's Correlation when the data were transcribed into average number.

# 3.7 Data analysis technique

The data collected from the questionnaires will be examined and analysed with the help of Statistical Analytical Software (SAS). Questionnaires that are incomplete or deemed unusable will be discarded to ensure the data is reliable and accurate.

## **3.7.1 Descriptive analysis**

Descriptive analysis is a way of describing quantitatively the collected information through questionnaires. The descriptive analysis will be divided into two parts which are the demographic profile of the respondents and central tendencies measurement of conduct. The demographic profile of the respondents will include the frequency and percentage while the central tendencies measurement of conducts will include the mean and standard deviation. This is used to transform the data collected into certain characteristics like demographic profile (Zikmund, 2003).

## **3.7.2 Scale measurement**

#### 3.7.2.1 Normality test

Normality test is carried out to determine whether the data is normally distributed in order to fulfil the assumption for Multiple Linear Regression and also Pearson correlation test. Skewness and Kurtosis are used to test if the data is normally distributed.

#### 3.7.2.2 Reliability test

The Cronbach's alpha will be used to determine the reliability of the data. According to Griffee (2012), the rule of the Cronbach's alpha of 0.3 means it is at the threshold, 0.5 or higher means adequate and 0.7 or higher mean high. George and Mallery (2003) have stated a more detail rule for the compute the Cronbach's alpha like less than 0.5 means unacceptable, greater than 0.5 means poor, greater than 0.6 means questionable, greater than 0.7 means acceptable, greater than 0.8 means good while greater than 0.9 means excellent.

### 3.7.2.3 Pearson Correlation Coefficient Analysis

Pearson Correlation Coefficient Analysis is used to examine and measure the correlation between two independent variables and identify if there are multicollinearity problems (Bunescu & Comaniciu, 2014).

Pearson correlation analysis used in this research to measure and analyze the relationship between age, education level, income, risk aversion, product attribute, financial literacy and company reputation and services. The value range of the correlation coefficient is -1 to +1. A positive correlation indicates that when one variable increases, other variable also increases (Malhotra, Hall, Shaw & Oppenhiem, 2006). According to Sekaran (2003), if the correlation value between the independent
variables is 0.90 and above, there is multicollinearity problem occurs because of high correlation between the independent variables. In this study, significant level of 5% is used to test for significance of the independent variables as it is convenience proved by Lehmann (2011). The rule of thumb of the Pearson Correlation Coefficient is shown in the following table.

### Table 3.5: Rule of Thumb (Pearson Correlation Coefficient)

Coefficient range	Strength
±0.91 to ±1.00	Very strong
±0.71 to ±0.90	High
±0.41 to ±0.70	Moderate
±0.21 to ±0.40	Small but definite relationship
0.00 to ±0.20	Slight, almost negligible

Source: Adopted from Hair, Money, Samouel and Page (2007)

## 3.7.2.4 Multiple Linear Regression Analysis

Multiple Linear Regression Analysis examines the relationships between independent and dependent variables. After the results have been obtained, an equation for the MLR will be created.

The general equation for multiple regression models is as follows:

 $Y = \beta 0 + \beta 1X1 + \beta 2X2 + \beta 3X3 + \dots + \beta nXn$ 

In order to compare the results of urban and rural area the two multiple linear regression models will be formed. The first linear regression model will reflect the results from urban area and the second will be from the rural areas.

The equation of multiple regressions that is involved in this study is as follows:

### URBAN AREA

 $DLI_{urban} = \beta_0 + \beta_1 Age + \beta_2 EDU + \beta_3 INC + \beta_4 RA + \beta_5 PA + \beta_6 FL + \beta_7 CRS$ 

### **RURAL AREA**

 $DLI_{rural} = \beta_0 + \beta_1 Age + \beta_2 EDU + \beta_3 INC + \beta_4 RA + \beta_5 PA + \beta_6 FL + \beta_7 CRS$ 

# **3.8** Conclusion

In this chapter, it has been decided that questionnaires will be used as a medium for data collection, targeted population and sampling locations and sample size have been determined. A pilot study has been carried out to ensure the feasibility of the study. SAS will be the software used to process data, dummy variables in the multiple linear regression model will be used to differentiate results between urban and rural areas.

# **CHAPTER FOUR: DATA ANALYSIS**

# 4.0 Introduction

Data is collected throughout the distribution of 500 sets of survey questionnaires. However, there are only 400 sets of survey questionnaires collectable (200 sets are from Ipoh and 200 sets are from both Tanjong Tualang and Malim Nawar). The percentage of sample size in urban area (Ipoh) would be 50% while another 50% would be in rural area (Tanjong Tualang and Malim Nawar). For rural area, 106 sets of questionnaires were collected from Malim Navar, however 94 sets of questionnaires were collected from Tanjong Tualang and their percentage based on the total sample size were 26.5% and 23.5% respectively. The data was interpreted and analyzed via descriptive analysis, scale measurements included normality test and reliability test as well as inferential analysis which consists of Pearson correlation analysis and multiple linear regressions analysis in both urban and rural areas. The data was generated by using SAS Enterprise Guide 5.1.

# 4.1 Descriptive Analysis

Respondent's demographic profile is analysed in terms of gender, age group, marital status, education level, income and occupation. All these details will be displayed in Appendix L.

# 4.1.1 Demographic Profile of the Respondents

4.1.1.1 Gender

Figure 4.1: Percentage of Respondents based on Gender in Urban and Rural Area



Source: Developed for the research

The figure 4.1 shows the demographic profile of a total of 400 respondents in both urban and rural areas based on gender. 56% of the respondents are male which consists of 112 respondents and 44% of them are female which consists of 88 respondents in urban area. In rural areas, there are 49.50% male respondents which are only 99 respondents and 50.50% of them are female with 101 respondents.

### 4.1.1.2 Age

# Figure 4.2: Percentage of Respondents based on Age in Urban and Rural Area



### Source: Developed for the research

Figure 4.2 shows that the percentage of respondents from urban and rural areas with 400 respondents. In urban area, 16.50% which consists of 33 respondents aged between 18 to 25 years old. 30% with 60 respondents, age between 26 to 32 years old. Besides that, there are 49 respondents consist of 24.50%, age from 33 to 37 years old.

Moreover, there are 37 respondents, 18.50% age from 38 to 45 years old. Lastly there are 21 respondents consists of 10.50%, aged between 46 to 55 years old.

In rural areas, the pie chart shows that there are 36 respondents consisting of 18%, age between 18 to 25 years old. Also, there are 47 respondents consisting of 23.50%, age between 26 to 32 years old. Besides, there are 51 respondents consisting of 25.50%, age between 33 to 37 years old. Moreover, there are 41 respondents consisting of 20.50%, age between 38 to 45 years old. Lastly there are 25 respondents consisting of 12.50%, age between 46 to 55 years old.

### 4.1.1.3 Marital status



# Figure 4.3: Percentage of Respondents based on Marital Status in Urban and Rural Area

Source: Developed for the research

Figure4.3 shows the respondents in urban area, most of the respondents are married as occupied 56% which is equivalent to 112 respondents in the sample. Besides, 43% which is equivalent to 86 respondents are single and followed by 1% which is equivalent to 2 respondents are neither married nor single. Meanwhile, in the rural areas, most of the respondents are married as occupied of 54% which is equivalent to 108 respondents in the sample. Besides, 43% which is equivalent to 86 respondents are married as occupied of 54% which is equivalent to 108 respondents in the sample. Besides, 43% which is equivalent to 86 respondents

are single and followed by 3% which is equivalent to 6 respondents are neither married nor single.

### 4.1.1.4 Education level

# Figure 4.4: Percentage of Respondents based on Education Level in Urban and Rural





Source: Developed for the research

Figure 4.4 shows the urban area have 70 respondents completed diploma studies which consist of 35%. This is followed by 44 respondents who are degree holders up to 22% and 43 respondents who have completed their secondary studies with 21.5%. Those respondents who have completed their primary studies occupied 12.50% with 25 respondents as well as respondents who are holding a master qualification occupied 7.5% which consists of 15 respondents and the rest of 1.5%, which are 3 respondents who are unwilling to respond.

At rural areas there are 67 respondents who completed diploma studies which consist of 33.5%. This is followed by 60 respondents who completed their secondary studies occupied up to 30% and 38 respondents who are degree holders with 19%. Those respondents who have completed their primary studies occupied 11.50% with 23 respondents as well as respondents who are holding a master qualification occupied

5.5% with 11 respondents and the rest 0.5% which is only 1 respondent is unwilling to respond.

### 4.1.1.5 Income level

# Figure 4.5: Percentage of Respondents based on Income Level in Urban and Rural Area



### Source: Developed for the research

Pie chart shows the urban area has 32% or equivalent to 64 respondents of the sample have income level in the range of RM1501-RM3000. On the other hand, 29% or equivalent to 58 respondents and 21.5% or equivalent to 43 respondents who are in the range of income level RM3001-RM4500 and RM 4501-RM6000 respectively. Small portion of respondents, 11.5% or equivalent to 23 respondents has received income level from RM 6000 and above. There is only 6% or equivalent to 12 respondents has an income level less than RM 1500.

In rural area, 30.50% or equivalent to 61 respondents of the sample have income level in the range of RM3001-RM4500. On the other hand, 29.5% or equivalent to 59 respondents and 17% or equivalent to 34 respondents who are in the range of income level RM1501-RM3000 and RM 4501-RM6000 respectively. Small portion of respondents, 15% or equivalent to 30 respondents has received income level less RM1500 meanwhile there is only 8% or equivalent to 16 respondents has an income level more than RM6000.

### 4.1.1.6 Occupation

# Figure 4.6: Percentage of Respondents based on Occupation in Urban and Rural Area



Source: Developed for the research

Figure 4.6 shows the urban area, 42% or equivalents to 84 respondents are working in private sector. Meanwhile, 27.5% or equivalent to 55 respondents and 18% or equivalent to 36 respondents are working as self-employed and government sector respectively. However, the rest of the respondents, 12.5% or equivalent to 25 respondents are choosing "others" to answer this question as they are unwilling to expose their current occupation.

In rural area, 46% or equivalents to 92 respondents are working in private sector. Meanwhile, 22% or equivalent to 44 respondents and 21% or equivalent to 42 respondents are working as self-employed and government sector respectively. However, the rest of the respondents, 11% or equivalent to 22 respondents are choosing "others" to answer this question as they are unwilling to expose their current occupation.

# **4.1.2 Central Tendencies Measurement of Constructs**

The statistical mean refers to the mean or average that is used to derive the central tendency of the data in question. It is determined by adding all the values in a data set and then dividing the total by the number of values added. The resulting number is known as the mean or the average. Standard deviation is a measure of the dispersion of a set of data from its mean. The more spread apart the data, the higher the deviation (Gujarati & Porter, 2009).

Overall, Appendix M shows the percentage of responses, means and standard deviations for each statement of dependent and independent variables. Referring to the table, risk aversion with RA3 (Purchase additional private insurance if my company provided SOCSO (Social Security Organization) for you) has the highest mean of 4.19 in urban area. This means risk aversion is the most influencing factor with statement RA3 (Purchase additional private insurance if my company provided SOCSO (Social Security Organization) for you). 60% of the respondents strongly agree with this statement while only 5.5% strongly disagree.

As for rural area, company reputation and services with statement CRS3 (Insurance agents should constantly monitor the level of satisfaction among customers) has the highest mean of 4.185. Company reputation and services is the most influencing factor with statement CRS3 in rural area. 59.5% of the respondents strongly agree with this statement while only 5.5% strongly disagree.

The dependent variable, demand of life insurance with statement DLI1 has the lowest mean in both rural and urban area of 2.155 and 2.205 respectively. In urban areas, 25% agree with statement DL1 while 27.5% strongly disagree. While in rural area, 2% strongly agree with statement DLI1 and 27.5% strongly disagree. The frequency and percentage of 5-point likert scale between urban and rural area will be show in Appendix N.

# 4.1.2.1 Demand of life insurance

Statement	Urban Area		Rural Area (N=200)		
	(N=200	(N=200)			
	Mean	Standard	Mean	Standard	
		Deviation		Deviation	
The decision of purchasing life insurance	2.155	0.96729172	2.205	1.03844443	
is influenced by insurance agent.					
The decision of purchasing life insurance	3.805	1.22657959	3.755	1.24608936	
is influenced by friend and relative.					
Life insurance is a need in life.	3.865	1.32497274	3.82	1.31768031	
I will buy life insurance for my children	3.725	1.10702417	3.66	1.14057202	
and love ones.					

# Table 4.7: Statement about the demand of life insurance between urban and rural area

*Source*: Developed for the research

From Table 4.7, statement "Life insurance is a need in life" has the highest mean in both urban and rural areas with 3.865 in urban and 3.82 in rural. 46% strongly agree while only 8.5% strongly disagree in rural while 48.5% strongly agree and 8.5% strongly disagree in urban. This statement is the most influencing under the dependent variable, demand of life insurance. At the same time, this statement has the highest standard deviation of 1.32497274 in urban and 1.31768031 in rural.

On the other hand, statement "The decision of purchasing life insurance is influenced by insurance agent" has the lowest mean in both rural and urban area with 2.155 in urban and 2.205 in rural. This statement is the least influencing. In urban, 27.5% strongly disagree and 0% strongly agree. In rural, 27.5% strongly disagree and 2% strongly agree. This statement also has the lowest standard deviation of 0.96729172 in urban and 1.03844443 in rural.

# 4.1.2.2 Demographic

Statement	Urban Area (N=200)		Rural Area (N=200)		
	Mean	Standard	Mean	Standard	
		Deviation		Deviation	
Age	2.765	1.23181241	2.86	1.28399502	
Education	295	1.17233607	2.785	1.0838119	
Income	3.005	1.11408299	2.735	1.14951377	

# Table 4.8: Statement about the demographic between urban and rural area

*Source*: Developed for the research

Table 4.8 shows that income contributes the highest mean of 3.005 in urban area with 32% of respondents having income level in the range of RM1501-RM3000. At the same time, income in urban area has the lowest standard deviation of 1.11408299. As for rural area, age has the highest mean of 2.86. 25.50% of respondents fall in the range of 33 to 37 years old.

# 4.1.2.3 Risk Aversion

Table 4	4.9: Statement	about the ris	k aversion	between	urban a	nd rural	area
I unic -	1.). Statement	about the His		between	ui buii u	nuiuiui	ui vu

Statement	Urban Area (N=200)		Rural Area (N=200)	
	Mean	Standard	Mean	Standard
		Deviation		Deviation
Purchasing of insurance can cover	3.835	1.2592472	3.885	1.11714595
my medical fees.				
Purchasing of more than 1	4.065	1.30741027	3.99	1.14738067
insurance policy can reduce risk.				

Purchase	additional	private	4.19	1.18359813	3.65	1.16804178
insurance if my company provided						
SOCSO	(Social	Security				
Organization) for you.						
Education le	evel will affec	t my risk	4.035	1.03398288	3.605	1.329169
intention.						

### Source: Developed for the research

Table 4.9 shows that the statement "Purchase additional private insurance if my company provided SOCSO (Social Security Organization) for you" has the highest mean of 4.19 in urban area which is also the highest among statements under urban area. It is the most influencing statement. 60% of the respondents strongly agree with this statement while only 5.5% strongly disagree. As for rural area, the statement "Purchasing of more than 1 insurance policy can reduce risk" has the highest mean of 3.99 with 46% strongly agree and 2.5% strongly disagree.

The statement "Purchasing of insurance can cover my medical fees" has the lowest mean of 3.835 in urban area with 42% strongly agree and 4% strongly disagree. Therefore, it is the least influencing statement under risk aversion. As for rural, the lowest mean of 3.605 falls to "Education level will affect my risk intention" with 30.5% strongly agree while 10% strongly disagree. At the same time this statement has the highest standard deviation of 1.329169.

## 4.1.2.4 Product attribute

### Table 4.10: Statement about the product attribute between urban and rural area

Statement	Urban	Area (N=200)	Rural Area (N=200)		
	Mean	Standard	Mean	Standard	
		Deviation		Deviation	

# DETERMINANTS OF DEMAND ON LIFE INSURANCE IN PERAK.COMPARISON BETWEEN URBAN AND RURAL AREA.

A lower premium price is an	3.725	1.10702417	3.685	1.10992553		
encouragement for purchasing life						
insurance.						
Payment terms (duration) will affect	3.555	1.2142268	3.515	1.21538504		
my decision on purchasing life						
insurance.						
Payment mode (monthly, quarterly,	3.955	1.18744479	3.9	1.21133673		
half yearly, yearly) will influence my						
selection of life insurance.						
A high premium price even with a	3.835	1.2592472	3.79	1.26645947		
higher coverage will encourage me						
from purchasing life insurance.						

Source: Developed for the research

Table 4.10 shows that statement "Payment mode (monthly, quarterly, half yearly, yearly) will influence my selection of life insurance" in both areas has the highest mean of 3.955 in urban area and 3.9 in rural area. It is the most influencing statement under factor product attribute. There is 46% of respondents strongly agree with this statement and only 2% strongly disagree in urban area. As for rural, 44.5% strongly agree while 2% strongly disagree.

However, the statement "Payment terms (duration) will affect my decision on purchasing life insurance" has the lowest mean for both areas which is 3.555 for urban and 3.515 for rural. Therefore, it is the least influencing statement under this factor. There is 26% strongly agree with this statement and 5% strongly disagree in rural while 25% strongly agree and 5% strongly disagree in urban.

The highest standard deviation falls to statement "A high premium price even with a higher coverage will encourage me from purchasing life insurance" for both areas which is 1.2592472 for urban area and 1.26645947 for rural areas.

# **4.1.2.5 Financial Literacy**

Statement	Urban Area (N=200)		Rural Area (N=200)	
	Mean	Standard	Mean	Standard
		Deviation		Deviation
Buying a stock in a mutual fund	3.575	1.26981778	3.71	1.15000546
provides a safer return than in a single				
company stock.				
Insurance will protect me from risk.	3.395	1.17296815	3.79	1.17593115
Higher return will result in higher risk.	3.35	1.14193699	3.705	1.11543533
I feel having life insurance is an	3.195	1.29823034	3.585	1.16600723
important way to protect loved ones.				

# Table 4.11: Statement about the financial literacy between urban and rural area

# *Source*: Developed for the research

Table 4.11 shows that statement "Buying a stock in a mutual fund provides a safer return than in a single company stock" in urban area has the greatest mean of 3.575 with 28% strongly agree and 7.5% strongly disagree. It is the most influencing statement under financial literacy in urban area. On the other hand, the statement "Insurance will protect me from risk" in rural area gives the highest mean reading of 3.79. There is 36.5% of respondents strongly agree with this statement and only 3.5% of them strongly disagree.

The lowest mean goes to "I feel having life insurance is an important way to protect loved ones" for both areas with a mean of 3.195 in urban and 3.585 in rural. 23% strongly agree with this while 7% strongly disagree in urban. As for rural, 25% strongly agree and 5.5% strongly disagree.

The statement "Higher return will result in higher risk" has the lowest standard deviation for both areas whereby urban area is 1.14193699 and rural areas will be 1.11543533.

# 4.1.2.6 Company Reputation and Services

# Table 4.12: Statement about the company reputation and services between urban and rural area

Statement	Urban Area (N=200)		Rural Area (N=200)	
	Mean	Standard	Mean	Standard
		Deviation		Deviation
Ability to produce good product and	3.98	1.19865922	3.875	1.2592472
services improve company's				
reputation.				
Efficient staff in handling customer's	3.97	1.12491206	4.065	1.30741027
problems can improve confidence				
Insurance agents should constantly	4.055	1.16566241	4.185	1.18227062
monitor the level of satisfaction among				
customers				
Clarity in explaining policy's terms and	3.87	1.01896588	4.035	1.03398288
conditions help to assure policy				
holders.				

## Source: Developed for the research

From Table 4.8, statement "Insurance agents should constantly monitor the level of satisfaction among customers" contributes the highest mean for both areas which is 4.055 in urban area and 4.185 in rural area. Thus, it becomes the most influencing statement under the factor company reputation and services. 52.5% of the respondents strongly agree with the statement while only 4% strongly disagree in urban area. As for rural, 59.5% of them strongly agree and 5.5% strongly disagree.

The lowest mean for urban area would be statement "Clarity in explaining policy's terms and conditions help to assure policy holder". The mean is 3.87. There is 29% of them strongly agree while only 2.5% strongly disagree. As for rural, the statement "Ability to produce good product and services improve company's reputation" has the

least mean of 3.875. 42% of them strongly agree with the statement while only 4% strongly disagree.

The lowest standard deviation falls to statement "Clarity in explaining policy's terms and conditions help to assure policy holders" in both areas which is 1.01896588 for urban and 1.03398288 for rural.

# 4.2 Scale Measurement

# 4.2.1 Normality Test

Skewness and Kurtosis test can be used to find out the normality level of dependent variable and independent variables in this study. Skewness measures the degree to which a statistical distribution is not symmetry around the mean whereas kurtosis is used to measure the normality of the distribution (Cisar & Cisar, 2010).

In this study, the Skewness and Kurtosis test had been carried out two times based on the selected area which is the urban and rural area. In general, the lowest skewness from the whole study came from the independent variable, 'Risk Aversion' (-1.3477965) whereas the highest skewness was from the dependent variable, 'Demand of Life Insurance' (0.6676911). On the other hand, the lowest kurtosis was from an independent factor, 'Financial Literacy' (-1.2951102) and the factor of 'Risk Aversion' was having the highest kurtosis (0.806955).

The result show in appendix O, the value of skewness and kurtosis test of all dependent and independent variables were fulfilling the acceptable range of  $\pm 3.0$ . Therefore, it can be concluded that all the variables were normally distributed (Saito, 2003).The table of normality test will show in appendix O.

# 4.2.2 Reliability Analysis

Construct	No of Constructs'	Urban Area	Rural area
	Cronbach's Alpha	Cronbach's Alpha	
DLI	4	0.785048	0.766493
RA	4	0.931413	0.925987
PA	4	0.736723	0.751404
FL	4	0.719006	0.921099
CRS	4	0.829584	0.931552

### Table 4.13: Reliability Statistics for Constructs between urban and rural area

*Source*: Developed for the research

In this study, the table 4.13 show that the reliability test was conducted by using the Cronbach's Alpha test. This test was also carried out in urban area and rural area respectively. In general, the coefficient of Cronbach's Alpha for the variables was ranging between 0.719006 and 0.931552. According to George and Mallery (2003), a variable is considered as excellent reliable when its Cronbach's Alpha value is 0.9 and above. In this study, the factor of Financial Literacy and Company Reputation and Services in rural, and Risk Aversion in both urban and rural area were excellent reliable.

However, a variable is considered as reliable when the value of Cronbach's Alpha was above 0.8. Therefore, Company Reputation and Services in urban area was considered as reliable. Besides that, a variable with a value of 0.7 and above is considered as acceptable reliable. In our study, Financial Literacy in urban area, the Demand of Life Insurance and Product Attribute in both rural and urban area were classified as acceptable reliable. In a nutshell, all the variables in this study achieved Cronbach's Alpha minimum value requirement which is 0.7 and above (Hair, Anderson, Tatham & Black, 2006). Therefore, all the items in the questionnaire of this study are reliable and the questionnaires can be considered as good.

# **4.3 Inferential statistics**

# 4.3.1 Pearson Correlation Analysis (Urban)

Table 4 14. Correlation	Value between	Independents	Variable and	Dependent	Variable
	value Detween	mucpenuents	valiable allu	Dependent	v al labic

	Average	Age	Education	Income	Average	Average	Average	Average
	DLI				RA	PA	FL	CRS
Average	1							
DLI								
Age	-0.13275	1						
	0.0610							
Education	-0.16350	0.63906	1					
	0.0207	< 0.0001						
Income	-0.19075	0.55378	0.61194	1				
	0.0068	< 0.0001	< 0.0001					
Average	0.27288	-0.01224	0.03357	0.01637	1			
RA	< 0.0001	0.8634	0.6370	0.8180				
Average	0.70341	-0.08657	-0.07125	-	0.77982	1		
PA	< 0.0001	0.2229	0.3161	0.03549	< 0.0001			
				0.6179				
Average	0.22937	-0.04406	0.05984	0.08850	0.27865	0.33947	1	
FL	0.0011	0.5356	0.3999	0.2127	< 0.0001	< 0.0001		
Average	0.70437	-0.08314	-0.07146	-	0.62277	0.84527	0.28210	1
CRS	< 0.0001	0.2418	0.3146	0.06246	< 0.0001	< 0.0001	< 0.0001	
				0.3796				

*Source*: Developed for the research

The table 4.14 shows the correlations between the independent and dependent variables in urban area (insurance demand, age, income, education level, income, risk aversion, product attribute, financial literacy and company's reputation and services).

When Pearson's correlation shows more than 0.9 when applied between the pairs of independent variables multicollinearity exists. Based on table 4.14, the lowest coefficient value is between insurance demand and income level which is at -0.19075. Variables which have the highest coefficient value is at 0.84527 which is between company reputation and services and product attribute. No multicollinearity exists between the independent variables because all correlation coefficient values are under 0.90.

### **Correlations between Age and education level**

The results above indicate that there is a positive correlation between age and education level with the coefficient value of 0.63906. The results also show that there is a significant relationship between age and education level with the value of <0.0001.

### Correlation between demand of life insurance and income level

The results above indicate that there is a negative correlation between demand of life insurance and income level with the coefficient value of -0.19075. The results also show that there is a significant relationship between demand of life insurance and income level with a value of 0.0068.

### Correlation between age and income level

The results above indicate that there is a positive correlation between age and income level with the coefficient value of 0.55378. The results also indicate a significant relationship between demand age and income level with a value of <0.0001.

### Correlation between education level and income level

The results above indicate that there is a positive correlation between education level and income level with a coefficient value of 0.61194. The results also show that there is a significant relationship between education and income level with a value of <0.0001.

### Correlation between demand of life insurance and risk aversion

The results above indicate that there is a positive correlation between demand of life insurance and risk aversion with the coefficient value of 0.27288. The results also show that there is a significant relationship between demand of life insurance and risk aversion with a value of <0.0001.

### Correlation between demand of life insurance and product attribute

The results above indicate that there is a positive correlation between demand of life insurance and product attribute with the coefficient value of 0.70341. The results also show that there is a significant relationship between demand of life insurance and product attribute with a value of <0.0001.

### Correlation between risk aversion and product attribute.

The results above indicate that there is a positive correlation between risk aversion and product attribute with the coefficient value of 0.77982. The results also indicate that a significant relationship is apparent between risk aversion and product attribute with a value of <0.0001.

### Correlation between demand of life insurance and financial literacy

The results above indicate that there is a positive correlation between demand of life insurance and financial literacy with the coefficient value of 0.22937. The results also indicate that a significant relationship is apparent between demand of life insurance and financial literacy with a value of 0.0011.

### Correlation between risk aversion and financial literacy

The results above indicate that there is a positive correlation between risk aversion and financial literacy with the coefficient value of 0.27865. The results also indicate that a significant relationship is apparent between risk aversion and financial literacy with a value of <0.0001.

### Correlation between product attribute and financial literacy

The results above indicate that there is a positive correlation between product attribute and financial literacy with the coefficient value of 0.33947. The results also show that

a significant relationship is apparent between product attribute and financial literacy with a value of <0.0001.

# Correlation between demand of life insurance and company's reputation and services

The results above indicate that there is a positive correlation between demand of life insurance and company's reputation and services with the coefficient value of 0.70437. The results also indicate that a significant relationship is apparent between demand of life insurance and company's reputation and services with a value of <0.0001.

### Correlation between risk aversion and company's reputation and services

The results above indicate that there is a positive correlation between risk aversion and company's reputation and services with the coefficient value of 0.62277. The results also indicate that a significant relationship is apparent between risk aversion and company's reputation and services with a value of < 0.0001.

### Correlation between product attribute and company's reputation and services

The results above indicate that there is a positive correlation between product attribute and company's reputation and services with the coefficient value of 0.84527. The results also indicate that a significant relationship is apparent between product attribute and company's reputation and services with a value of <0.0001.

### Correlation between financial literacy and company's reputation and services

The results above indicate that there is a positive correlation between financial literacy and company's reputation and services with the coefficient value of 0.28210. The results also indicate that a significant relationship is apparent between financial literacy and company's reputation and services with a value of <0.0001.

# 4.3.2 Multiple Regression Analysis

Model	Dependent	R-Square	Adj R-Sq	F-value	Pr>F
	Mean				
7	3.38750	0.7326	0.7228	75.13	< 0.0001

# Table 4.15: Model summary

*Source*: Developed for the research

In the table 4.15 above, the model's R-Square is 0.7326 indicates that 73.26% of the changes in the dependent variable can be explained by the 7 independent variables in the study while the remaining 26.74% will be explained by other factors.

The F-value is at 75.13 and the p-value is <0.0001 which is less than 0.05. This indicates that the independent variables can be used to describe the dependent variables.

**Table 4.16: Summary of Regression Coefficients** 

Hypothesis	Variable	Parameter	t value	Pr> t	Standardized	Tolerance	Variance
		Estimate			Estimate		Inflation
	Intercept	0.96449	4.69	<.0001	0	-	0
H <sub>1a</sub>	AGE	0.03603	0.96	0.3370	0.04889	0.53985	1.85236
H <sub>2a</sub>	EDU	0.01506	0.36	0.7169	0.01945	0.48562	2.05921
H <sub>3a</sub>	INC	-0.13691	-3.41	0.0008	-0.16803	0.57250	1.74672
H <sub>4a</sub>	RA	-0.55650	-11.06	<.0001	-0.67028	0.37914	2.63752
H <sub>5a</sub>	PA	0.99743	10.96	<.0001	0.98008	0.17403	5.74602
H <sub>6a</sub>	FL	0.01973	0.49	0.6279	0.01952	0.86171	1.16049
H <sub>7a</sub>	CRS	0.27952	4.02	<.0001	0.28282	0.28097	3.55912

Source: Developed for the research

The equation of multiple regression is developed as follows:

DLI = 0.96449 +0.03603 AGE + 0.01506 EDU - 0.13691INC-0.55650 RA +0.99743 PA + 0.01973 FL + 0.27952 CRS

Not all the p-value for the independent variables are less than 0.05. The p-value for income level, risk aversion, product attribute and company's reputation and services have p-values less than 0.05 which means they are significant. Age, education level, and financial literacy have p-values which are greater than 0.05 therefore they are insignificant and should be removed from the study.

# 4.3.3 Pearson Correlation Analysis (Rural)

# Table 4.17: Correlation Value between Independents Variable and Dependent Variable

	Average	Age	Education	Income	Average	Average	Average	Average
	DLI				RA	РА	FL	CRS
Average	1							
DLI								
Age	-0.02324	1						
	0.7440							
Education	-0.18168	0.06854	1					
	0.0100	0.3349						
Income	-0.03314	0.33903	-0.00966	1				
	0.6413	< 0.0001	< 0.0001					
Average	0.35266	0.03321	0.03392	-	1			
RA	< 0.0001	0.6406	0.6335	0.07401				
				0.2976				
Average	0.65220	-	-0.10795	-	0.58609	1		
PA	< 0.0001	0.00976	0.1281	0.11992	< 0.0001			
		0.8908		0.0908				
Average	-0.13069	0.07850	0.03353	-	0.16891	0.06377	1	

FL	0.0651	0.2692	0.6374	0.08242	0.0168	0.3697		
				0.2459				
Average	0.25789	-	-0.05179	-	0.67461	0.74638	0.15365	1
CRS	0.0002	0.03727	0.4665	0.15859	< 0.0001	< 0.0001	0.0298	
		0.6003		0.0249				

Source: Developed for the research

The table 4.17 shows the correlations between the independent and dependent variables in rural area (insurance demand, age, income level, education level, risk aversion, product attribute, financial literacy and company's reputation and services).

The lowest coefficient value is between insurance demand and education level which is at -0.18168, while the highest coefficient value is at 0.74638 which is between company reputation and services and product attribute. Multicollinearity does not exist between the independent variables because all the correlation coefficient values are under 0.90.

## Correlation between demand of life insurance and education level

The results indicate that there is a negative correlation between demand of life insurance and education level with the coefficient value of -0.18168. The results also show that there is a significant relationship between demand of life insurance and education level with a value of 0.0100.

## Correlation between age and income level

The results indicate that there is a positive correlation between age and income level with the coefficient value of 0.33903. The results also indicate that a significant relationship is apparent between age and income level with a value of < 0.0001.

## Correlation between education level and income level

The results indicate that there is a negative correlation between education level and income level with the coefficient value of -0.00966. The results also indicate that a

significant relationship is apparent between education and income level with a value of <0.0001.

### Correlation between demand of life insurance and risk aversion

The results indicate that there is a positive correlation between demand of life insurance and risk aversion with the coefficient value of 0.35266. The results also indicate that a significant relationship is apparent between demand of life insurance and risk aversion with a value of <0.0001.

### Correlation between demand of life insurance and product attribute

The results indicate that there is a positive correlation between demand of life insurance and product attribute with the coefficient value of 0.65220. The results also indicate that a significant relationship is apparent between demand of life insurance and product attribute with a value of <0.0001.

### Correlation between risk aversion and product attribute

The results indicate that there is a positive correlation between risk aversion and product attribute with the coefficient value of 0.58609. The results also indicate that a significant relationship is apparent between risk aversion and product attribute with a value of <0.0001.

# Correlation between demand of life insurance and company's reputation and services

The results indicate that there is a positive correlation between demand of life insurance and company's reputation and services with the coefficient value of 0.25789. The results also indicate that a significant relationship is apparent between demand of life insurance and company's reputation and services with a value of 0.0002.

### Correlation between risk aversion and company's reputation and services

The results indicate that there is a positive correlation between risk aversion and company's reputation and services with the coefficient value of 0.67461. The results

also indicate that a significant relationship is apparent between risk aversion and company's reputation and services with a value of <0.0001.

### Correlation between product attribute and company's reputation and services

The results indicate that there is a positive correlation between product attribute and company's reputation and services with the coefficient value of 0.74638. The results also indicate that a significant relationship is apparent between product attribute and company's reputation and with a value of <0.0001.

# 4.3.4 Multiple Regression Analysis

Model	Dependent	R-Square	Adj R-Sq	F-value	Pr>F
	Mean				
7	3.36000	0.5903	0.5754	39.52	< 0.0001

### **Table 4.18: Model summary**

*Source*: Developed for the research

In the table 4.18 above, the model's R-Square is 0.5903 indicates that 59.03% of the changes in the dependent variable can be explained by the 7 independent variables in the study while the remaining 40.97% will be explained by other factors.

The F-value is at 39.52 and the p-value is <0.0001 which is less than 0.05. This indicates that the independent variables can be used to describe the dependent variables.

Hypothesis	Variable	Parameter	t value	Pr> t	Standardiz	Tolerance	Variance
		Estimate			ed		Inflation
					Estimate		
	Intercept	1.79822	6.13	< 0.0001	0	-	0
H <sub>1a</sub>	AGE	-0.01823	-0.52	0.6061	-0.02565	0.86539	1.15554
H <sub>2a</sub>	EDU	-0.09192	-2.32	0.0212	-0.10913	0.96774	1.03333
H <sub>3a</sub>	INC	-0.00096226	0.02	0.9807	0.00121	0.85305	1.17226
H <sub>4a</sub>	RA	0.18059	3.32	0.0011	0.21357	0.51482	1.94241
H <sub>5a</sub>	PA	0.97021	13.56	< 0.0001	0.96697	0.41974	2.38243
H <sub>6a</sub>	FL	-0.11576	-2.776	0.0063	-0.13137	0.94442	1.05885
H <sub>7a</sub>	CRS	-0.49612	-7.6	< 0.0001	-0.59413	0.34879	2.86703

**Table 4.19: Summary of Regression Coefficients** 

Source: Developed for the research

The equation of multiple regressions is developed as follows:

# DLI = 1.79822- 0.01823AGE- 0.09192 EDU - 0.00096226INC+0.18059 RA +0.97021 PA -0.11576 FL - 0.49612CRS

Not all the p-value for the independent variables are less than 0.05. The p-value for education level, risk aversion, product attribute, financial literacy and company's reputation and services have p-values less than 0.05 which means they are significant. Age and income have p-values which are greater than 0.05 therefore they are insignificant and should be removed from the study.

# 4.4 Conclusion

In the beginning of the chapter, the demographic information adopted from respondents were examined and summarized into tables and figures. The constructs measurement of total 20 statements used to measure the variables have obtainable. Further, the reliability of the statements of the variables is measured by using internal reliability test. Pearson correlation

was used to measure the strength, direction, and significance of the bivariate relationship between the variables. Moreover, multiple regressions analysis also used to analyse the relationship between the dependent variable and multiple independent variables. All the results in this chapter will be summarized and discussed in the following chapter.

# <u>CHAPTER FIVE: DISCUSSIONS, CONCLUSION AND</u> <u>IMPLICATIONS</u>

# 5.0 Introduction

The data collected from both urban and rural area has been examined and discussed systematically to develop the conclusion for this research. Furthermore, the implication of the research from the managerial perspective was clarified. Future research can be enhanced by applying the recommendation which was based on the limitation.

# 5.1 Statistical Analysis Summary

# **5.1.1 Descriptive Analysis**

## **5.1.1.1 Demographic Profile of the Respondents**

A total of 500 sets of survey questionnaires have been distributed in order to obtain data for the research purpose. However, 100 sets of survey questionnaires are not collectable and thus, this research only included 400 sets which 200 sets of survey questionnaires for urban area and rural areas respectively. Hence, the total respond rate yield was 80%.

In urban area, the number of male respondents is higher than female respondents at the percentage of 56%. Most of them are married and fall in the age group of 26 - 32. Besides, respondents are mostly diploma educated with majority earned an income range from RM 1501 to RM 3000. Moreover, up to 42% of respondents are worked in private sector.

On the other hand, the number of female respondents in rural areas is higher than male respondents at the percentage of 50.5%. Most of them are married and fall in the age group of 33 - 37. Also, respondents are mostly diploma educated with majority earned an income range from RM 3001 to RM 4500. Furthermore, up to 46% of respondents are worked in private sector.

# 5.1.2 Central Tendencies Measurement of Construct

## 5.1.2.1 Demand of life insurance

DLI3 "Life insurance is a need in life", achieved the highest mean (3.865) whereas DLI1 "The decision of purchasing life insurance is influenced by insurance agent" achieved the lowest mean (2.155). DLI3 achieved the highest standard deviation (1.32497274) meanwhile DLI1 achieved the lowest in standard deviation of 0.96729172 in urban area.

DLI3 "Life insurance is a need in life", achieved the highest mean (3.82) whereas DLI1 "The decision of purchasing life insurance is influenced by insurance agent" achieved the lowest mean (2.205). DLI3 achieved the highest standard deviation (1.31768031) meanwhile DLI1 achieved the lowest in standard deviation of (1.03844443) in rural areas.

## 5.1.2.2 Demographic

"Income level" achieved the highest mean (3.005) while "Age" scored the lowest mean (2.765). However, "Age" achieved the highest in standard deviation (1.23181241) whereas "Income level" scored the lowest standard deviation of 1.11408299 in urban area.

"Age" achieved the highest mean (2.86) while "Income level" scored the lowest mean (2.735). Also, "Age" achieved the highest in standard deviation (1.28399502) whereas "Education level" scored the lowest standard deviation of 1.0838119 in rural areas.

### 5.1.2.3 Risk Aversion

RA3 "Purchase additional private insurance if my company provided SOCSO (Social Security Organization) for you" achieved the highest mean (4.19) whereas RA1 "Purchasing of insurance can cover my medical fees" scored the lowest mean (3.835). However, RA2 "Purchasing of more than 1 insurance policy can reduce risk" achieved the highest standard deviation (1.30741027) while RA4 "Education level will affect my risk intention" scored the lowest standard deviation (1.03398288) in urban area.

RA2 "Purchasing of more than 1 insurance policy can reduce risk" achieved the highest mean (3.99) whereas RA4 "Education level will affect my risk intention." achieved the lowest mean (3.605). Also, RA4 scored the highest standard deviation (1.329169) meanwhile RA1 "Purchasing of insurance can cover my medical fees" scored the lowest standard deviation (1.11714595) in rural areas.

### 5.1.2.4 Product attribute

PA3 "Payment mode (monthly, quarterly, semi-annual, yearly) for premium will influence my selection of life insurance" scored the highest mean (3.955) while PA2 "Payment terms (duration) for premium will affect my decision on purchasing life insurance" scored the lowest mean (3.555). However, PA4 "A high premium price even with a higher coverage will encourage me to purchase life insurance" achieved the highest standard deviation (1.2592472) while PA1 "A lower premium price is an encouragement for purchasing life insurance" scored the lowest standard deviation (1.10702417) in urban area.

PA3 "Payment mode (monthly, quarterly, semi-annual, yearly) for premium will influence my selection of life insurance" scored the highest mean (3.9) while PA2 "Payment terms (duration) for premium will affect my decision on purchasing life insurance" scored the lowest mean (3.515). However, PA4 "A high premium price even with a higher coverage will encourage me to purchase life insurance" achieved the highest standard deviation (1.26645947) while PA1 "A lower premium price is an encouragement for purchasing life insurance" scored the lowest standard deviation (1.10992553) in rural areas.

## **5.1.2.5 Financial Literacy**

FL1 "Buying a stock in a mutual fund provides a safer return than in a single company stock" achieved the highest mean (3.575) whereas FL4 "I feel having life insurance is an important way to protect loved ones" obtained the lowest mean (3.195). FL1 yet again obtained the highest in standard deviation (1.29823034) meanwhile FL3 "Higher return will result in higher risk" scored the lowest standard deviation (1.14193699) in urban area.

FL2 "Insurance will protect me from risk" achieved the highest mean (3.79) whereas FL4 "I feel having life insurance is an important way to protect loved ones" obtained the lowest mean (3.585). FL2 yet again obtained the highest in standard deviation (1.17593115) meanwhile FL3 "Higher return will result in higher risk" scored the lowest standard deviation (1.11543533) in rural areas.

### 5.1.2.6 Company Reputation and Services

CRS3 "Insurance agents should constantly monitor the level of satisfaction among customers" scored the highest mean (4.055) whereas CRS4 "Clarity in explaining policy's terms and conditions help to assure policy holders" achieved the lowest mean (3.87). CRS1 "Ability to produce good product and services improve company's

reputation" obtained the highest standard deviation (1.19865922) whereas CRS4 scored the lowest standard deviation (1.01896588) in urban area.

CRS3 "Insurance agents should constantly monitor the level of satisfaction among customers" scored the highest mean (4.185) whereas CRS1 "Ability to produce good product and services improve company's reputation" achieved the lowest mean (3.875). However, CRS2 "Efficient staff in handling customer's problems can improve confidence" achieved the highest standard deviation (1.30741027) while CRS4 "Clarity in explaining policy's terms and conditions help to assure policy holders" scored the lowest standard deviation (1.03398288) in rural areas.

# 5.1.3 Scale Measurement

### 5.1.3.1 Normality Test

The normality test results have shown in appendix J, skewness's critical value for all the dependent variable and independent variables at urban area are covered from - 1.3477965 (RA3) to 0.52536476 (DLI1) meanwhile kurtosis' critical values are covered from -1.2951102 (FL4) to 0.806955 (RA3).

Skewness's critical value for all the dependent variable and independent variables at rural areas are covered from -1.341177965 (CRS3) to 0.66767911 (DLI1) meanwhile kurtosis' critical values are covered from -1.0447537 (Age) to 0.79989107 (CRS3).

Hence, the data is normally distributed seeing that the skewness and kurtosis are in the range of -3 to 3.

### **5.1.3.2 Reliability Analysis**

According to Table 4.13, Cronbach's Alpha analysis in chapter 4, RA obtained the highest Cronbach's Alpha value of 0.931413 meanwhile FL obtained the lowest

Cronbach's Alpha value of 0.719006 among all the independent variables in urban area.

Meanwhile, CRS obtained the highest Cronbach's Alpha value of 0.931552 but PA obtained the lowest Cronbach's Alpha value of 0.751404 amongst the independent variables in rural areas. Thus, the variables have fulfilled the compulsory minimum level of reliability.

Therefore, all the items in the questionnaire of this study are reliable and the questionnaires can be considered good seeing that our study attained Cronbach's Alpha minimum value requirement which is 0.7 and above.

# **5.1.4 Inferential Analyses**

### 5.1.4.1 Pearson Correlation Analysis (Urban area)

The Pearson Correlation analysis evidently shows to facilitate there is a positive association between the independent variables and dependent variable. Independent variables consisting of age, income level, educational level, risk aversion, product attribute, financial literacy and company reputation and services whereas the dependent variable is demand of life insurance. All hypotheses are supported because the p-values is lesser than 0.05 for independent variables.

## 5.1.4.2 Multicollinearity

The correlations between independent variables were not more than 0.90. There is no multicollinearity between independent variables. However, the highest association is between company reputation and services and product attribute with the coefficient value of 0.84527. Therefore, Multiple Regression Analysis' assumption for Multicollinearity is satisfied.

### 5.1.4.3 Multiple Regression Analysis

Result of regression analysis shows the R-Square is 0.7326. It means that 73.26% of the variation in demand of life insurance (DLI) be capable to explained via age, income level, educational level, risk aversion (RA), product attribute (PA), financial literacy (FL) and company reputation and services (CRS).

The equation of multiple regression is developed:

$$\mathbf{DLI} = 0.96449 + 0.03603 \ \mathbf{AGE} + 0.01506 \ \mathbf{EDU} - 0.13691 \ \mathbf{INC} - 0.55650 \ \mathbf{RA} + 0.99743 \ \mathbf{PA} + 0.01973 \ \mathbf{FL} + 0.27952 \ \mathbf{CRS}$$

It shows that three independent variables which are age, education level and financial literacy (FL) have insignificant relationship with demand of life insurance (DLI) whereas income level, risk aversion (RA), product attribute (PA) and company reputation and services (CRS) have significant relationship with demand of life insurance (DLI). So, the null hypotheses for three independent variables (age, education level and FL) need to be discarded whereas the null hypotheses for the left over four independent variables (income level, RA, PA and CRS) should not be discarded. Besides,  $\beta$  or the slopes demonstrate that negative association exist between two independent variables and demand of life insurance (DLI) which is income level and RA while positive correlations exist between five independent variables and cRS. The equation has also specified that for every raise in income level and RA will decline by 0.13691and 0.55650 respectively but for every increase in age, education level, PA, FL and CRS will increase by 0.03603, 0.01506, 0.99743, 0.01973 and 0.27952 respectively, holding other variables constant.

Assumptions to perform multiple regression analysis have accomplished, four independent variables are notably associated in the midst of DLI as the significant p-values are lesser than 0.05 which is income level, RA, PA and CRS. However, age, education level and FL have to be dropped as the significant p-values are more than 0.05.

### **5.1.4.4 Pearson Correlation Analysis (Rural area)**

The Pearson Correlation analysis evidently shows to facilitate there is a positive association between the independent variables and dependent variable. Independent variables consisting of age, income level, educational level, risk aversion, product attribute, financial literacy and company reputation and services whereas the dependent variable is demand of life insurance. All hypotheses are supported because the p-values is lesser than 0.05 for independent variables.

### 5.1.4.5 Multicollinearity

The correlations between independent variables were not more than 0.90. There is no multicollinearity between independent variables. However, the highest association is between CRS and PA with the coefficient value of 0.74638. Therefore, Multiple Regression Analysis' assumption for Multicollinearity is satisfied.

#### 5.1.4.6 Multiple Regression Analysis

Result of regression analysis shows the R-Square is 0.5903. It means that 59.03% of the variation in demand of life insurance (DLI) be capable to explained via age, income level, educational level, risk aversion (RA), product attribute (PA), financial literacy (FL) and company's reputation and services (CRS).

The equation of multiple regression is developed:

# DLI =1.79822–0.01823AGE–0.09192 EDU–0.00096226INC+0.18059 RA +0.97021 PA -0.11576 FL – 0.49612CRS

It shows that two independent variables which are age and income level have insignificant relationship with demand of life insurance (DLI) whereas education level, risk aversion (RA), product attribute (PA), financial literacy (FL) and company
reputation and services (CRS) have significant relationship with demand of life insurance (DLI). So, the null hypotheses for two independent variables (age and income level) need to be discarded whereas the null hypotheses for the left over five independent variables (education level, RA, PA, FL, and CRS) should not be discarded. Besides,  $\beta$  or the slopes demonstrate that negative association exist between five independent variables and demand of life insurance (DLI) which is age, education level, income level, FL and CRS while positive association exist between two independent variables and demand of life insurance (DLI) which is RA and PA. The equation has also specified that for every raise in age, education level, income level, FL and CRS will decline by 0.01823, 0.09192, 0.00096226, 0.11576 and 0.49612 respectively but for every increase in RA and PA will increase by 0.18059 and 0.97021 respectively, holding other variables constant.

Assumptions to perform multiple regression analysis have accomplished, five independent variables are notably associated in the midst of DLI as the significant p-values are lesser than 0.05 which is education level, RA, PA, FL and CRS. However, age and income level have to be dropped as the significant p-values are more than 0.05.

## 5.2 Discussion on Major Findings

#### **5.2.1 Demand for life insurance**

Factors	Urban	Rural
AGE	Insignificant	Insignificant
EDU	Insignificant	Negative
INC	Negative	Insignificant
RA	Negative	Positive
PA	Positive	Positive
FL	Insignificant	Negative
CRS	Positive	Negative

 Table 5.1: Factors for the urban and rural areas

Source: Developed for the research

The results in the study have found that in the urban area, income level, risk aversion, product attribute and company's reputation were important factors while in rural markets education level, risk aversion, product attribute, financial literacy and company's reputation and services were important factors. Age did not have a significant relationship with the demand of life insurance in both urban and rural areas.

The disparities between the factors that affect urban and rural markets are income level, education level and financial literacy. Income had a significant effect on the demand for life insurance in urban markets but not in rural markets. In rural markets, education level and financial literacy plays important roles affecting the demand for life insurance. Those who have lower education level and financial literacy tend to purchase more insurance in rural markets while that is not the case for in the urban market.

In this study it was found that both urban and rural markets are affected by risk aversion, company's reputation and services, and product attribute. It is worth noting that the demand of insurance in urban markets which were previously thought to be more focused on product's attribute is now affected by other factors such as risk aversion and the company's reputation and services. However, the demand of life insurance in rural markets is affected by the product attributes other than others factors.

#### 5.2.2 Age

 $H_{1a}$ : Age will influence on the demand for life insurance in urban.  $H_{1b}$ : Age will influence on the demand for life insurance in rural.

As shown in the results from the table 4.16 and 4.18, the p-value is 0.3370 and 0.6061 in urban and rural areas respectively. Both values are larger than 0.05 therefore  $H_{1a}$  and  $H_{1b}$  are rejected which shows that age does not influence the demand for life insurance in both urban and rural areas. The results are inconsistent with Sanmugam (2013); Chen, Wong and Lee (2001); Mahdzan and Tabiani (2013) as they found that

age is a significant factor in determining the demand for life insurance. This is probably because residents perceive life insurance as a need regardless of age.

#### **5.2.3 Education level**

 $H_{2a}$ : Education level will influence the demand for life insurance in urban.  $H_{2b}$ : Education level will influence the demand for life insurance in rural.

The results indicate that in the urban area, education level does not have a significant relationship with demand for life insurance with a p-value of 0.7169.  $H_{2a}$  is rejected which means that education level does not influence the demand of life insurance in the urban. The results are inconsistent with Mahdzan and Victorian (2013); Li et al (2007) where education level is positively related to the demand of life insurance. This may be due to the fact insurance consumption in the urban market has become a norm where most recognize the importance of life insurance even if they are lowly educated.

The results indicate that in the rural area, education level has a significant negative relationship with the demand for life insurance with a p-value of 0.0212 which is smaller than 0.05.  $H_{2b}$  which means that education level has a significant negative relationship with demand for life insurance in the rural areas. The results are consistent with Çelik and Kayali (2009) where the researchers found that education has a negative correlation with the demand for live insurance. Çelik and Kayali (2009) found a negative relationship between education level and demand of life insurance which is consistent. The researchers noted that more highly educated people tend to examine their purchase of life insurance and choose against the purchase of life insurance.

#### **5.2.4 Income**

 $H_{3a}$ : Income level will influence on the demand for life insurance in urban.  $H_{3b}$ : Income level will influence on the demand for life insurance in rural.

The results indicate that in the urban area, income level has a significant negative relationship with the demand for life insurance with a p-value of 0.0008 which is smaller than 0.05.  $H_{3a}$  is accepted which means that income level will influence the demand of life insurance in the urban area. Li et al (2007); Mhere (2013) found that income had a positive relationship with insurance participation which contradicts this study's results. The contradiction may be due to those who earn higher incomes can cover costs otherwise covered by insurers.

The results indicate that in the rural area, income level does not have a significant relationship with demand of life insurance with a p-value of 0.9807 which is higher than 0.05.  $H_{3b}$  is rejected which show that income level will influence the demand of life insurance for rural. The results contradict the results found by Li et al (2007); Mhere (2013) where they found a positive relationship between income and the demand for life insurance. The rural markets have recognized the importance of insurance and use insurance regardless of their income.

#### 5.2.5 Risk aversion

 $H_{4a}$ : Risk averse will influence on the demand for life insurance in urban.  $H_{4b}$ : Risk averse will influence on the demand for life insurance in rural.

The results indicate that in the urban area, risk aversion has a significant negative relationship with the demand for life insurance with a p-value of 0.001 which is smaller than 0.05.  $H_{4a}$  is accepted which shows that risk aversion will influence the demand of life insurance in the urban area. The results in this study contradicts the results showed in the study of Cutler, Finkelstein and McGrarry (2008) where it was found that there was a positive relationship between risk aversion and the demand for insurance. Schmitz (2011) stated that in some markets, a negative relationship

between risk aversion and the demand for insurance cover because individuals have private information on the type of risk they face.

The results indicate that in the rural area, risk aversion has a significant positive relationship with the demand for life insurance with a p-value of 0.0011 which is smaller than 0.05.  $H_{4b}$  is accepted which shows that risk aversion will influence the demand of life insurance in the rural areas. The results are consistent with Ofoghi and HajipourFarsangi (2013) as the research found a positive relationship between risk aversion and the demand for insurance. They noted people with insurance knowledge have higher risk aversion compared with people without insurance knowledge. This indicated that people with insurance knowledge are more risk averse and more effect on insurance demand.

#### **5.2.6 Product attribute**

 $H_{5a}$ : Product attribute will influence on the demand for life insurance in urban.  $H_{5b}$ : Product attribute will influence on the demand for life insurance in rural.

The results indicate that in both the urban and rural areas, product attribute has a significant positive relationship with the demand for life insurance. In both urban and rural areas product attribute has a p-value of 0.001 which is smaller than 0.05.  $H_{5a}$  and  $H_{5b}$  are accepted which means that product attribute will influence the demand of life insurance in both urban and rural areas.

Product attribute and insurance demand has a positive relationship in urban areas which is consistent with the findings the results found in chapter 4. According to Athma and Kumar (2012) the urban market for insurance is more likely influenced by product based factors. The results for the rural areas are inconsistent with the result from Yadav and Tiwari (2012) as they stated that rural markets are more inclined to be influenced by non-product related factors. This is most probably because of the specially catered products attributes that can attract the customers to demand for life insurance.

#### **5.2.7** Financial literacy

 $H_{6a}$ : Financial literacy will influence on the demand for life insurance in urban.  $H_{6b}$ : Financial literacy will influence on the demand for life insurance in rural.

The results indicate that in the urban area, financial literacy does not have a significant relationship with demand for life insurance with a p-value of 0.6279 which is greater than 0.05.  $H_{6a}$  is rejected which shows that financial literacy will not influence the demand of life insurance in the urban area. The results are consistent with Mahdzan and Victorian (2013) where financial literacy was insignificant toward the demand of life insurance. They stated that whether or not an individual is financially literate, they may be aware of the perils they face in life and demand life insurance.

The results indicate that in the rural area, financial literacy has a significant negative relationship with demand for life insurance with a p-value of 0.0063 which is smaller than 0.05. H<sub>6b</sub> is accepted which shows that financial literacy will influence the demand of life insurance for the urban area. The results are inconsistent with Cole et al (2013) where there was a significant positive relationship between financial literacy and the demand for insurance. The people from rural area with low financial literacy or little experience regarding insurance normally get advice from the insurance agent. Their decisions are likely to be influenced by the agents as they may find it hard to evaluate the benefits of insurance by themselves. They do not have the knowledge to base their evaluation on. Apart from insurance agents, they may also obtain advice from people whom they socialize with such as relatives, co-workers, friends and acquaintances.

#### 5.2.8 Company's reputation and services

H<sub>7a</sub>: Company reputation and services will influence on the demand for life insurance in urban.

H<sub>7b</sub>: Company reputation and services will influence on the demand for life insurance in rural.

The results indicate that in urban area, company's reputation and services has a significant positive relationship with demand for life insurance with a of p-value of <0.0001 which is smaller than 0.05.  $H_{7a}$  is accepted which shows that company reputation and services will influence the demand of life insurance in the urban area.

The results are consistent with Haery, Ghorbani and Zamani (2014) which stated that corporate reputation significantly and positively influence customer trust while customer trust has positive and significant impact on desire to buy products. By providing a good service with a well-known company, it will make the people to purchase the life insurance confidently.

The results indicate that in rural areas, company reputation and services has a significant negative relationship with demand of insurance with a p-value of <0.0001 which is smaller than 0.05. H<sub>7b</sub> is accepted which shows that company reputation and services will influence the demand of life insurance in the rural areas. The results are inconsistent with Yadav and Tiwari (2012) as they stated that the rural market was less affected by product attributes of insurance products. This is because rural area citizens have a wrong perception that agents' services are pestering.

## 5.3 Implications of the Study

## 5.3.1 Managerial Implications

The results showed that company's reputation and services is an important factor influencing the demand of life insurance in both urban and rural areas. However, company's reputation and services has a negative correlation with demand of life insurance in rural areas. Rural consumers perceived the frequent calls from agents to get updates from them are troublesome and time consuming. Insurance companies are

suggested to explain the purpose and needs of delivering timely services and follow up on their clients so that rural residents will understand insurance agents are doing their best to serve them. In urban area, company's reputation and services is positive related to the demand. In order to attract the new customers and retain the existing ones, insurance companies need to understand customers' needs so that a better service can be offered to them (Mathur & Tripathi, 2014). Therefore, this research suggests that insurance companies should improve on their services from time to time in order to compete with each other. Insurance agents should fulfil their promises in a timely manner to build up customer's trust. This will enhance the company's reputation.

The results also show that product attribute is a significant positive factor for the demand of life insurance in rural areas which contradicted the results from Yadav and Tiwari (2012). Therefore insurance companies or agents can put more emphasis on the product attributes of the insurance products in rural markets as they would in urban markets. Insurance companies can offer insurance products with different payment duration, mode, and prices to cater for the rural markets. By understanding the product attributes that required by the rural citizens, the sales process can be conducted smoothly and hence, this can boost up the profit of the company. Besides insurance industry, the servicing or retail industry can also focus on the product attributes when their targeted market is in the rural market.

Financial literacy and education level is found to be significant factors but they are negatively affecting the demand of life insurance in rural area. Insurance companies are suggested to give seminars, or organize activities that will educate and create awareness on financial planning among rural residents. By doing this, the rural residents will fully understand the reason why they need insurance and what are the protections they are having besides changing the perception of blindly trusting on the insurance agents. With this knowledge, consumers will understand the importance of financial planning and risk management. When consumers are aware of their risk, they may seek for protection.

On the other hand, income level and risk aversion are negatively significant for the demand of life insurance in urban area. Insurance companies can corporate with some big corporations to provide more seminar or talk for their high income level stuffs and managers so that they can aware of the importance of risk transfer instead of practicing risk retention all the time. Insurance companies can focus on this point by informing them the disadvantage of risk retention and indirectly change their perceptions of self-insured. However, in rural area, the insurance companies only need to focus on risk aversion when selling the insurance product regardless the income level. This is because the result from this study show that risk aversion is positively related to the demand of life insurance in rural area while income level is insignificant. Therefore, the insurance companies can boost their sales and profit by using the findings based on this study.

Besides that, this research contributes to the financial industries. This includes financial institutions for example commercial bank that offer insurance protection as well. The findings of this study help them to improve so that they can offer better products and services tailored to different customers. This is because based on the finding, product attributes is significant for the demand of life insurance and it is positive related to the demand in both rural and urban area. Therefore the financial institutions have to come up with insurance plans that suits consumers' needs. The premium price and payment mode should be considered in designing the insurance plan as these are important factors under product attribute that will affect the demand of insurance.

This research also contributes to retail or service industry. The service industries involve provisions of products and services to businesses and consumers. Companies in the service industry can understand better on the factors that influence the demand of life insurance and indirectly this will enable them to get know of the reason behind consumers' preferences on the servicing products. With this, the companies in service industry can apply the same factors on their products. Companies will be able to explore and expand their business market. By expanding the companies' market, the number of customer increases and it will increase the profits of the companies.

Last but not least, this study can contribute to the general public as well. When this study is published, the readers of the study can get some extra information on insurance planning. They will get know of the importance of risk management and understand the reason behind why people are so reluctant to involve in demanding of life insurance and vice versa. With the awareness in risk protections, they will have the basic knowledge on their risk management planning. Meanwhile, they can seek for some professional advices from the life planners to get their tailor-made insurance plan which can fulfill their personal needs.

## 5.4 Limitations of the study

Throughout the research, there are some limitations which may affect the reliability of the results. These limitations should be taken into account when other researchers or other organizations want to use the results or proposed implications of the study. The purpose of discovering the limitations is not to reject the hypothesis but to avoid in the future research.

#### **5.4.1 Sampling Location**

The first limitation is the location where the survey has been conducted. Perak is chosen because the location is accessible and convenient for the researchers. Tanjong Tualang and Malim Nawar are selected representing rural area in Perak while Ipoh is selected representing urban area. However, there are 13 states in Malaysia and each state represents a significant contribution to the insurance industry in Malaysia. Therefore, the data obtained solely from one state is difficult to generalize to the whole insurance industry in Malaysia.

### 5.4.2 Sampling Technique

Another limitation would be the method used to select the target respondents. Since the researchers are using convenience sampling technique, the objectivity of the result is less due to it is a nonprobability sampling method. The samples are chosen based on convenience and therefore only those respondents who have the chance to meet the researchers have the opportunity of being selected. As such, not all insurance consumers in Malaysia have equal probability of being selected.

#### 5.4.3 Sampling Element

This research is used to study the insurance consumers only in Malaysia specifically which may resulted in different conclusion when it is conducted in other countries. This is because the insurance penetration or density rate in Malaysia is relatively low compared to other Asian countries. This is supported by Loke and Goh (2012). The results generated may be different among countries which have higher penetration rate.

#### 5.4.4 Sample Size

A total of 500 sets of survey questionnaires are being distributed. 250 sets are distributed in Ipoh area while another 250 sets are distributed in Tanjong Tualang and Malim Nawar. However, the 80% of the total sets of questionnaires being distributed to both areas may result in a bias. This is because the population in Ipoh representing urban area and Tanjong Tualang and Malim Nawar representing rural area has a huge difference. By distributing 200 sets in both urban and rural areas may cause the results to be unreliable.

#### 5.4.5 Unreliable Data from Respondents

The targeted respondents may provide unreliable data due to several reasons. The respondents may answer in a way to satisfy the researchers. Besides that, respondents may hastily answer the questionnaires without giving further thoughts in their answers. Respondents may also do not understand the questions in the survey although instructions were given. As such, they may give inaccurate answer because they do not understand the questions clearly.

## 5.5 Recommendation for Future research

In future, it is suggested that further researches can be conducted on the other states in Malaysia. This study is only conducted in three areas of Perak due to time and budget constraints. Therefore, these results are insufficient to represent the whole urban area and rural area in Perak. Besides that, due to different behaviours and attitudes for other regions and countries' citizens, the future studies should include the whole country (the whole peninsular Malaysia, Sabah and Sarawak) and other countries as well. According to Khalifa and Shen (2008), the patterns of m-commerce diffusion and adoption are varying in different countries' context.

On top of that, it is suggested that future research should include more rural area so that the total population for rural area is similar to the urban area. With an almost similar population and sample size, the result generated from the data collected will be more reliable and unbiased. Furthermore, the samples are recommended to be drawn from whole Malaysia including Sabah and Sarawak. This is because a better research can be done by including more respondents from broader and worldwide perspectives in findings (Suki & Suki, 2007).

On the other hand, sampling technique is another important part in the study. Convenience sampling technique is used in this study, however, it is inefficient. This is because three areas are picked based on convenient purpose. In order to avoid this problem, the future researches are recommended to apply area sampling technique to collect data. Area sampling is a special

form of cluster sampling in which the sample items are clustered on a geographic area basis. The area selected from this method is usually from part of a clustered or multi-stage design. The basic idea of this method is simple and powerful. Researchers can get a high quality data. However, the practical execution of a large scale area sample is highly complex. Area sampling is conducted in multiple stages, with successively smaller area clusters being sub-sampled at each stage. Therefore, this sampling technique is recommended for those future researchers who have sufficient time and budget.

Last but not least, reliable and valid data from respondents is rather important to obtain accurate results. Therefore, the willingness of respondents to fill up the survey questionnaires accurately plays a significant role. Thus, a more suitable way of data collection would be through interviews. It can be harder for the interviewee to put off questions posed by the interviewer rather than just circling options in a questionnaire. The interviewee is more likely to respond with more honesty and more freely giving the interviewer an honest input thus making the results obtained more accurate. Researches can make use of interviews when they wish to obtain more thorough information on a topic than what might be gleaned from a questionnaire. During the interview, the interviewer will be able to deviate when necessary to maximise the information obtained.

## 5.6 Conclusion

In a nutshell, this chapter has been successfully done to acquire the main objectives to evaluate the factor influence the demand of life insurance. The seven independent variables that have been tested in this research which involve age, income, education level, risk aversion, product attribute, financial literacy and company reputation and services. The results obtained from this research show that some independent variables do not affect the demand of life insurance. For instance, the insignificant independent variables in urban area include age, education and financial literacy. However, the insignificant determinants in the rural area include age and income. Thus, all the research question and objectives had been achieved in this research.

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## **APPENDIX A:** Four Tier Use to Describe Different Area in Malaysia

Tier	Total residents
Tier 1	75000 and more
Tier 2	10000 to 74999
Tier 3	1000 to 9999
Tier 4	Less than 1000

## APPENDIX B: Gross Premium for Conventional Life Insurance Company in Malaysia in year 2011

	Gross writte	n premiums
Company	MYR Mn	USD Mn
Great Eastern	5,780.0	1,888.9
Prudential	4,359.6	1,424.7
ING	2,486.1	812.5
AIA Bhd	2,411.4	788.0
Hong Leong	1,674.6	547.2
Allianz Life	1,129.4	369.1
Etiqa	608.2	198.8
MCIS Zurich	587.3	191.9
Tokio Marine Life	475.2	155.3
ZURICH	466.7	152.5

Appendix C: Gross Premium for Takaful Company in Malaysia year 2010

Company	Gross Premium(RM Million)
Etiqa Company	1956
Takaful Malaysia	786
Takaful Ikhlas	575
Prudential BSN Takaful	353
CIMB Aviva	193

#### **Appendix D: Per Capital Life Insurance Premium Expenditures for Countries**



Insurance Company	Efficiency Scores	Demand for Life Insurance
GREAT EASTERN	100	149,857
AETNA UNIVERSAL	98.11	91,741
PRUDENTIAL BERJAYA	92.57	61,861
MNI	87.57	34,019
MCIS	79.38	33,970
OAC	48.73	32,547
HONG LEONG	37.18	21,060
MAYBAN LIFE	35.11	13,162
MBALIFE	6.40	6,920
EON	2.21	5,760

#### APPENDIX E: The Efficiency Scores from the Insurance Company and Demand of Life Insurance in Malaysia

Appendix F: The Efficiency Scores and Life Insurance Demand for Individual Insurance Companies in Malaysia





**APPENDIX G: Insurance Density per Capital Premium 2010** 

Source: Swiss Sigma Re, 5/2011

Fig. 1. Insurance Density (per capita premium income, USD) in 2010

#### **APPENDIX H: PERMISSION LETTER TO CONDUCT SURVEY**



UNIVERSITI TUNKU ABDUL RAHMAN

Wholly Owned by UTAR Education Foundation (Company No. 578227-M)

6th March 2015

#### 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 Finance (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
Chong Lee Ming	12ABB00214
Looi Po Wai Kevin	12ABB01085
See Jie Hui	11ABB04006
Yew Suet Yee	12ABB06113
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If you need further verification, please do not hesitate to contact me.

Thank you.

Yours sincerely

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#### **APPENDIX I: SURVEY QUESTIONNAIRE**



## **UNIVERSITI TUNKU ABDUL RAHMAN Faculty of Business and Finance BACHELOR OF FINANCE (HONS)** FINAL YEAR PROJECT DETERMINANT OF DEMAND ON LIFE INSURANCE IN PERAK. COMPARISON BETWEEN URBAN AND RURAL AREA.

**Survey Questionnaire** 

Dear respondent,

We are final year undergraduate students of Bachelor of Finance (Hons), from Universiti Tunku Abdul Rahman (UTAR). The purpose of this survey is to conduct a research to investigate the factor demand of life insurance between rural and urban in Perak, Malaysia. Please answer all questions correctly. All responses are completely confidential.

Thank you for your participation.

#### **Instructions**:

1) There are **TWO** (2) sections in this questionnaire. Please answer ALL questions in ALL sections.

Section A: Background of respondent Section B: Impact of socioeconomic

- 2) Completion of this form will take you approximately 5 to 10 minutes.
- 3) Please feel free to share your comment in the space provided. The contents of this questionnaire will be kept strictly confidential.

#### Section A: Demographic Profile

Please place a tick " $\sqrt{}$ " or fill in the blank for each of the following:

- 1. Location: .....
- 2. Gender:



- 3. Age:
  - 18-25
    26-32
    33-37
    38-45
    46-55
- 4. Marital status:
  - Single
  - Married
  - Others: .....
- 5. Highest education completed:
  - Primary
    - Secondary
    - Diploma
  - Degree
    - Master
  - Others: .....
- 6. Personal Income:
  - <RM1500
  - RM1501-RM3000
  - RM3001-RM4500
  - RM4501-RM600
  - □ >RM6000

- 7. Occupation:
  - Self employed
  - Private Sector
  - Government sector
  - Others: .....

#### Section B:

In this section, we would like to measure the factor demand of life insurance between rural and urban in Perak, Malaysia.

Please circle your answer to each statement using 5 Likert scale:

# (1) = strongly disagree; (2) = disagree; (3) = neutral; (4) = agree and (5) = strongly agree

#### (A) DEMAND OF LIFE INSURANCE

Items	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
DLI1	The decision of purchasing life insurance is influenced by insurance agent.	1	2	3	4	5
DLI2	The decision of purchasing life insurance is influenced by friend and relative.	1	2	3	4	5
DLI3	Life insurance is a need in life.	1	2	3	4	5
DLI4	I will buy life insurance for my children and love ones.	1	2	3	4	5

## (B) RISK AVERSION

Items	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
RA1	Purchasing of insurance can cover my	1	2	3	4	5
	medical fees.					
RA2	Purchasing of more than 1 insurance policy	1	2	3	4	5
	can reduce risk.					
RA3	Purchase additional private insurance if my	1	2	3	4	5
	company provided SOCSO (Social					
	Security Organization) for you.					
RA4	Education level will affect my risk	1	2	3	4	5
	intention.					

## (C) PRODUCT ATTRIBUTES

Items	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
PA1	A lower premium price is an encouragement for purchasing life insurance.	1	2	3	4	5
PA2	Payment terms (duration) for premium will affect my decision on purchasing life insurance.	1	2	3	4	5
PA3	Payment mode (monthly, quarterly, semi- annual, yearly) for premium will influence my selection of life insurance.	1	2	3	4	5
PA4	A high premium price even with a higher coverage will encourage me to purchase life insurance.	1	2	3	4	5

## (D) FINANCIAL LITERACY

Items	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
FL1	Buying a stock in a mutual fund provides a safer return than in a single company stock.	1	2	3	4	5
FL2	Insurance will protect me from risk.	1	2	3	4	5
FL3	Higher return will result in higher risk.	1	2	3	4	5
FL4	I feel having life insurance is an important way to protect loved ones.	1	2	3	4	5

### (E) COMPANY'S REPUTATION AND SERVICES

Items	Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
CRS1	Ability to produce good product and services improve company's reputation	1	2	3	4	5
CRS 2	Efficient staff in handling customer's problems can improve confidence	1	2	3	4	5
CRS 3	Insurance agents should constantly monitor the level of satisfaction among customers	1	2	3	4	5
CRS 4	Clarity in explaining policy's terms and conditions help to assure policy holders.	1	2	3	4	5

Thank you for your time, opinion and comments.

~ The End ~

# Appendix J: Total Population by Ethic group, Local Authority area and State, Malaysia, 2010.

#### **Table 1: Total Population in Tanjong Tualang**

M.D. Batu Gajah	79,969	5,934	6,745	8,158	7,185	6,481	5,184	5,010	5,001
Bali, Tronoh	1,676	223	83	140	111	161	121	52	80
Batu Gajah	6,738	585	399	510	625	526	509	442	455
Chenderong	1,290	31	73	172	227	45	18	53	77
Kampong Perpaduan	960	44	56	70	86	104	65	40	41
(Indian Settlement)									
Nalla, Tronoh	1,003	38	72	70	77	125	26	42	46
Papan	313	1	2	7	15	6	4	13	10
Pusing & Gunong Hijau	3,236	132	130	151	201	276	102	157	148
Siputeh	429	52	45	44	34	37	52	46	28
Sungai Durian	1,370	85	128	131	104	41	38	51	62
Tanjong Tualang	983	51	84	113	72	37	42	46	52
Timah, Tanjong Tualang	1,122	58	96	110	86	59	33	92	41
Tronoh	1,498	78	120	95	188	159	61	81	96
Kawasan selebih M.D.	59,351	4,556	5,457	6,545	5,359	4,905	4,113	3,895	3,865
Remainder of M.D.									

#### **Table 2: Total population in Malim Nawar**

KAMPAR									
M.D. Kampar	90,313	88,638	28,734	27,104	1,630	49,420	10,336	148	1,675
Gopeng	2,493	2,469	638	586	52	1,313	511	7	24
Jeram	1,296	1,282	28	20	8	1,253	-	1	14
Kampar	15,074	14,858	2,706	2,426	280	10,008	2,106	38	216
Kopisan Baharu	2,345	2,332	102	98	4	1,761	469	-	13
Kota Baharu	136	136	124	123	1	9	3	-	-
Kuala Dipang	251	250	250	250	-	-	-	-	1
Lawan Kuda Baharu	3,333	3,295	188	177	11	2,750	351	6	38
Malim Nawar	2,918	2,881	409	401	8	2,103	364	5	37
Mambang Di-Awan	5,103	5,024	219	197	22	4,191	606	8	79
Sungai Siput Selatan	212	207	15	13	2	186	6	-	5
Tronoh Mines	461	460	3	-	3	456	1	-	1
Kawasan selebih M.D.	56,691	55,444	24,052	22,813	1,239	25,390	5,919	83	1,247
Remainder of M.D.									

#### **Table 3: Total population for Ipoh**

KINTA	-								
M.B. Ipoh	657,892	39,376	53,707	60,330	65,395	58,843	47,329	43,316	44,277
Chemor	1,854	50	90	245	143	197	86	86	188
Jelapang	3,898	168	211	263	410	254	292	263	453
Lahat	398	56	7	70	19	13	19	16	14
Majlis Perbandaran Ipoh	434,204	22,055	33,420	38,918	42,064	38,585	29,489	26,735	27,751
Simpang Pulai	3,972	135	187	363	199	451	447	246	313
Sungai Raya	82	4	5	7	5	8	6	5	6
(Kampong Kepayang)									
Tambun	759	30	37	52	157	65	47	45	37
Tanjong Rambutan	6,840	455	555	832	588	587	448	439	368
Kawasan selebih M.B.	205,885	16,423	19,195	19,580	21,810	18,683	16,495	15,481	15,147
Remainder of M.B.									

Sources: Adopted from Majlis Bandaraya Ipoh

#### Appendix K: The formula and table for determining the sample size

#### Table 1: The formula for determining the sample size

Formula for determining sample size

 $s = X^2 N P (1 - P) + d^2 (N - 1) + X^2 P (1 - P)$ 

s = required sample size.

 $X^2$  = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841).

N = the population size.

P = the population proportion (assumed to be .50 since this would provide the maximum sample size).

d = the degree of accuracy expressed as a proportion (.05).

Sources: Adopted from Krejcie and Morgan (2010).

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1 <i>5</i> 00	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note .— N is population size. S is sample size.

Source: Krejcie & Morgan, 1970
Profile	Categories	Urban Area		Rural Area	
		Frequency	Percentage	Frequency	Percentage
Gender	Male	112	56	99	49.5
	Female	88	44	101	50.5
Age	18-25	33	16.5	36	18
	26-32	60	30	47	23.5
	33-37	49	24.5	51	25.5
	38-45	37	18.5	41	20.5
	46-55	21	10.5	25	12.5
Marital Status	Single	86	43	86	43
	Married	112	56	108	54
	Others	2	1	6	3
Education	Primary	25	12.5	23	11.5
	Secondary	43	21.5	60	30
	Diploma	70	35	67	33.5
	Degree	44	22	38	19
	Master	15	7.5	11	5.5
	Others	3	1.5	1	0.5
Income	<rm1500< td=""><td>12</td><td>6</td><td>30</td><td>15</td></rm1500<>	12	6	30	15
	RM1501-RM3000	64	32	59	29.5
	RM3001-RM4500	58	29	61	30.5
	RM4501-RM6000	43	21.5	34	17
	>RM6001	23	11.5	16	8
Occupation	Self-employed	55	27.5	44	22
	Private sector	84	42	92	46
	Government	36	18	42	21
	Sector	25	12.5	22	11
	Others				

#### Appendix L: Demographic Profile of the Respondents

Sources: Developed for the research

Variables	Statement	Urban Area (N=200)		Rural Area (N=200)	
		Mean	Standard	Mean	Standard
			Deviation		Deviation
Demand of life	DLI 1	2.155	0.96729172	2.205	1.03844443
insurance	DLI 2	3.805	1.22657959	3.755	1.24608936
	DLI 3	3.865	1.32497274	3.82	1.31768031
	DLI 4	3.725	1.10702417	3.66	1.14057202
Demographic	Age	2.765	1.23181241	2.86	1.28399502
	Education	295	1.17233607	2.785	1.0838119
	Income	3.005	1.11408299	2.735	1.14951377
Risk Aversion	RA 1	3.835	1.2592472	3.885	1.11714595
	RA 2	4.065	1.30741027	3.99	1.14738067
	RA 3	4.19	1.18359813	3.65	1.16804178
	RA 4	4.035	1.03398288	3.605	1.329169
Product Attribute	PA 1	3.725	1.10702417	3.685	1.10992553
	PA 2	3.555	1.2142268	3.515	1.21538504
	PA 3	3.955	1.18744479	3.9	1.21133673
	PA 4	3.835	1.2592472	3.79	1.26645947
Financial	FL 1	3.575	1.26981778	3.71	1.15000546
Literacy	FL 2	3.395	1.17296815	3.79	1.17593115
	FL 3	3.35	1.14193699	3.705	1.11543533
	FL 4	3.195	1.29823034	3.585	1.16600723
Company	CRS 1	3.98	1.19865922	3.875	1.2592472
Reputation and	CRS 2	3.97	1.12491206	4.065	1.30741027
Services	CRS 3	4.055	1.16566241	4.185	1.18227062
	CRS 4	3.87	1.01896588	4.035	1.03398288

#### Appendix M: Summary of Central Tendency of construct

Source: Developed for the research

#### Appendix N: The Frequency and Percentage of 5-point Likert Scale between Urban and Rural Area

Variables	Item	5-point Likert	Urban		Rural	
		scale	Frequen	Percentag	Frequency	Percentage
Demand of	DLI 1	Strongly disagree	cy 55	e 27.5%	55	27.5%
life	DLII	Disagree	84	42.0%	81	40.5%
insurance		Neutral	36	18.0%	36	18.0%
		Acuse	50	10.0%	30	10.070
		Agree	25	12.5%	24	12%
		Strongly agree	0	0%	4	2%
	DLI 2	Strongly disagree	9	4.5%	9	4.5%
		Disagree	29	14.5%	33	16.5%
		Neutral	32	16.0%	32	16.0%
		Agree	52	26.0%	50	25%
		Strongly agree	78	39.0%	76	38.0%
	DLI 3	Strongly disagree	17	8.50%	17	8.5%
		Disagree	15	7.5%	15	7.5%
		Neutral	43	21.5%	47	23.5%
		Agree	28	14.0%	29	14.5%
		Strongly agree	97	48.5%	92	46%
	DLI 4	Strongly disagree	7	3.5%	7	3.5%
		Disagree	28	14.0%	34	17.0%
		Neutral	31	15.5%	31	15.5%
		Agree	81	40.5%	76	38%
		Strongly agree	53	26.5%	52	26%
Risk	RA 1	Strongly disagree	8	4.0%	5	2.5%
aversion		Disagree	36	18.0%	30	15.0%
		Neutral	21	10.5%	17	8.5%
		Agree	51	25.5%	79	39.5%
		Strongly agree	84	42.0%	69	34.5%
	RA 2	Strongly disagree	7	3.5%	5	2.5%
		Disagree	35	17.5%	23	11.5%
		Neutral	17	8.5%	33	16.5%

# DETERMINANTS OF DEMAND ON LIFE INSURANCE IN PERAK.COMPARISON BETWEEN URBAN AND RURAL AREA.

		Agree	21	10.0%	47	23.5%
		Strongly agree	121	60.5%	92	46.0%
	RA 3	Strongly disagree	11	5.5%	10	5.0%
		Disagree	9	4.5%	28	14.0%
		Neutral	31	15.5%	39	19.5%
		Agree	29	14.5%	68	34.0%
		Strongly agree	120	60.0%	55	27.5%
	RA 4	Strongly disagree	0	0%	20	10.0%
		Disagree	24	12.0%	31	15.5%
		Neutral	31	15.5%	18	9.0%
		Agree	59	29.5%	70	35.0%
		Strongly agree	86	43.0%	61	30.5%
Product	PA 1	Strongly disagree	7	3.5%	7	3.5%
Attribute		Disagree	28	14.0%	30	15.0%
		Neutral	31	15.5%	32	16.0%
		Agree	81	40.5%	81	40.5%
		Strongly agree	53	26.5%	50	25.0%
	PA 2	Strongly disagree	10	5.0%	10	5.0%
		Disagree	40	20.0%	42	21.0%
		Neutral	31	15.5%	33	16.5%
		Agree	67	33.5%	65	32.5%
		Strongly agree	52	26.0%	50	25.0%
	PA 3	Strongly disagree	4	2.0%	4	2.0%
		Disagree	32	16.0%	36	18.0%
		Neutral	25	12.5%	25	12.5%
		Agree	47	23.5%	46	23.0%
		Strongly agree	92	46.0%	89	44.5%
	PA 4	Strongly disagree	8	4.0%	8	4.0%
		Disagree	36	18.0%	38	19.0%
		Neutral	21	10.5%	23	11.5%
		Agree	51	25.5%	50	25.0%
		Strongly agree	84	42.0%	81	40.5%
Financial	FL 1	Strongly disagree	15	7.5%	10	5.0%

# DETERMINANTS OF DEMAND ON LIFE INSURANCE IN PERAK.COMPARISON BETWEEN URBAN AND RURAL AREA.

		[				
Literacy		Disagree	35	17.5%	26	13.0%
		Neutral	26	13.0%	31	15.5%
		Agree	68	34.0%	78	39.0%
		Strongly agree	56	28.0%	55	27.5%
	FL 2	Strongly disagree	8	4.0%	7	3.5%
		Disagree	47	23.5%	27	13.5%
		Neutral	45	22.5%	40	20.0%
		Agree	58	29.0%	53	26.5%
		Strongly agree	42	21.0%	73	36.5%
	FL3	Strongly disagree	7	3.5%	7	3.5%
		Disagree	48	24.0%	26	13.0%
		Neutral	51	25.5%	42	21.0%
		Agree	56	28.0%	69	34.5%
		Strongly agree	38	19.0%	56	28.0%
	FL 4	Strongly disagree	14	7.0%	11	5.5%
		Disagree	64	32.0%	28	14.0%
		Neutral	37	18.5%	44	22.0%
		Agree	39	19.5%	67	33.5%
		Strongly agree	46	23.0%	50	25.0%
Company	CRS 1	Strongly disagree	4	2.0%	8	4.0%
Reputation and Services		Disagree	34	17.0%	36	18.0%
		Neutral	19	9.5%	21	10. 5%
		Agree	48	24.0%	51	25.5%
		Strongly agree	95	47.5%	84	42.0%
	CRS 2	Strongly disagree	5	2.5%	7	3.5%
		Disagree	23	11.5%	35	17.5%
		Neutral	30	15.0%	17	8.5%
		Agree	57	28.5%	20	10.0%
		Strongly agree	85	42.5%	121	60.5%
	CRS 3	Strongly disagree	8	4.0%	11	5.5%
		Disagree	12	6.0%	9	4.5%
		Neutral	46	23.0%	31	15.5%
		Agree	29	14.5%	30	15.0%

# DETERMINANTS OF DEMAND ON LIFE INSURANCE IN PERAK.COMPARISON BETWEEN URBAN AND RURAL AREA.

	Strongly agree	105	52.5%	119	59.5%
CRS 4	Strongly disagree	5	2.5%	0	0%
	Disagree	19	9.5%	24	12.0%
	Neutral	31	15.5%	31	15.5%
	Agree	87	43.5%	59	29.5%
	Strongly agree	58	29.0%	86	43.0%

Source: Developed for the research

Variables	Items	Urban Area		Rural Area		
		Skewness	Kurtosis	Skewness	Kurtosis	
Demographic	Age	0.26199175	-0.9065487	0.10632635	-1.0447537	
	Education	0.13562149	-0.378777	0.24623785	-0.3776364	
	Income	0.2332426	-0.8078243	0.25320546	-0.6801987	
Demand of	DLI 1	0.52536476	-0.6441565	0.66767911	-0.2678474	
Life Insurance	DLI 2	-0.6941669	-0.6718232	-0.6111138	-0.8446396	
	DLI 3	-0.8358174	-0.5015568	-0.768201	-0.5731365	
	DLI 4	-0.6945776	-0.3457282	-0.5749946	-0.6490784	
<b>Risk Aversion</b>	RA 1	-0.7216838	-0.8008651	-0.8628887	-0.245275	
	RA 2	-0.9798086	-0.619993	-0.847289	-0.3929553	
	RA 3	-1.3477965	0.806955	-0.5871915	0.5657183	
	RA 4	-0.7316744	-0.6817693	-0.6819692	-0.7889563	
Product	PA 1	-0.6945776	-0.3457282	-0.642496	-0.4420621	
Attribute	PA 2	-0.4527927	-0.9197981	-0.391519	-0.979855	
	PA 3	-0.7854911	-0.6936807	-0.6973691	-0.8838631	
	PA 4	-0.7216838	-0.8008651	-0.6473596	-0.9167705	
Financial	FL 1	-0.5715014	-0.8330699	-0.7347537	-0.3145008	
Literacy	FL 2	-0.1691289	-1.0519107	-0.6142663	-0.6799697	
	FL 3	-0.0853873	-1.0194135	-0.5805982	-0.4935107	
	FL 4	0.0772758	-1.2951102	-0.5246775	-0.5928598	
Company	CRS 1	-0.8454133	-0.6414538	-0.7216838	-0.8008651	
Reputation	CRS 2	-0.8605355	-0.27185	-0.9798086	-0.619993	
and Services	CRS 3	-0.9538871	-0.0959804	-1.341177965	0.79989107	
	CRS 4	-0.858686	0.23980214	-0.7316744	-0.6817693	

Appendix O: Skewness Measurement of All Items

Source: Developed for the research