

**THE DETERMINANTS ON HEALTH AND LIFE  
INSURANCE DEMAND AMONG MALAYSIAN**

**BY**

**BENJAMIN NG WENG JUN  
FONG LING HARN  
GOON LAI THENG  
TAN XIN YEE  
TAN YIK CHOON**

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## DECLARATION

We hereby declare that:

- (1) This undergraduate research project is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.
- (2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.
- (3) Equal contribution has been made by each group member in completing the research project.
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Name of Student:	Student ID:	Signature:
1. BENJAMIN NG WENG JUN	11ABB06936	
2. FONG LING HARN	11ABB06986	
3. GOON LAI THENG	11ABB06879	
4. TAN XIN YEE	11ABB06905	
5. TAN YIK CHOON	10ABB06477	

Date: 26 August 2014

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## DEDICATION

Dedicated to:

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Ng's, Fong's, Goon's, Tan's and Tan's family by supporting us in completing this project.

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Respondents

Respondents that willing to spend their time in doing our survey.

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## PREFACE

Overall, Bachelor of Business Administration (HONS) Banking and Finance lies the assessment of Final Year Project (FYP) or also known as the research methodology and project that requires graduating students to conduct a paper in the final year.

This paper is conduct under title of “The Determinants on Health and Life Insurance Demand among Malaysian”. It is to be complete within 28 weeks.

Life insurance is a very important function to secure a family member as well as to provide security financial for individuals. However, in Malaysia the demand of life insurance is yet not preferable. Not only that, medical expenses increase critically but there are still a lot of Malaysians who do not have their own health and life insurance. Which is why conducting this research paper and it is essential to contribute ideas on the factors that affect the demand on health and life insurance.

In the context of mixing marketing and insurance in this paper, students are expected be able to perfect their knowledge, as well as to explore different field and expand our sight.

To understand the relationship between determinants and health and life insurance, questionnaire has been distributed and review of past study has been done before conducting this paper.

## ABSTRACT

Life insurance is a very important function to secure a family member as well as to provide security financial for individuals. However, in Malaysia the demand of life insurance is yet not preferable. Not only that, medical expenses increase critically but there are still a lot of Malaysians who do not have their own health and life insurance. Which is why conducting this research paper and it is essential to contribute ideas on the factors that affect the demand of Health and Life Insurance. The main goal of conducting this paper is to identify the major factors that influence the Demand of Health and Life Insurance. Relevant tests have been done base on the questionnaire survey distributed and analyze by using descriptive and inferential analysis.

Keywords: Demand, Health and Life Insurance

## **CHAPTER 1: RESEARCH OVERVIEW**

### **1.0 Introduction**

Chapter 1 consider as an introductory chapter for this whole study. Therefore, it covers on the research background, problem statement, research objective, and research question, hypothesis of the study, significant of the study and chapter layout. The research has comprised five independent variables and one dependent variable which are demand on health and life insurance.

### **1.1 Research Background**

Health and life insurance is an insurance coverage that pays out a certain amount of money to the insured or their specified beneficiaries upon a certain event such as death of the individual who is insured. Besides, it support for medical expenses once individual admit to medical treatment. This insurance provides individuals and the economy as a whole with a number of important financial services. It allows individuals, families and communities to manage income risk. Also, life and health insurance encourages long-term saving and the reinvestment of substantial sums in private and public sector projects.

According to Bank Negara Malaysia Annual Insurance Statistics (2010), in the past 10years, Malaysians started conscious about the importance of insurance. This is due to insurance consumption in Malaysia which is year 2000 to year 2010 has increased by 128% which is from RM338 to RM771 by using insurance consumption per capital. Moreover, in the past 10 years also showed new health

and life insurance policies has also increased the number of 1,174,517 policies to 1,428,280 policies which is around 21%. Although the insurance sector has raise sharply in Malaysia, the number of health and life insurance still consider low based on penetration rate. Besides, compare to other Asian countries, the GDP for health and life insurance in Malaysia is low at 2.9% which conclude there is large untapped life insurance market in Malaysia. While compare to developed countries, the health and life insurance is well appreciated by consumers due to have a higher chance to get higher education. According to Sarwar and Qureshi (2013), lack of insurance knowledge is one of the most important barriers in purchasing health and life insurance.

In past few decades, insurance is not very famous in Malaysia because the misunderstood of insurance and only small number of Malaysian bought insurance at last time. They feel insurance is an intangible product and it is only a paper with a promise and it is not required. Sometimes people know they need to buy insurance protection, but do not trust that the insurance company will fairly pay claims and they do not believes the insurance can help them in life. Some people decline the known risk, they believe that the risk would not happen to them, although they are clearly understood risks but they ignore it. Besides, some people do not bought insurance in past because of uneducated on their future financial risk and lack of the funds.

In Malaysia, public health care services are experiencing establishment pressures. This due to increase of demand and limited resources provided. Current services provide almost fully insured to the overall population and all civil servants and causes the health service suffers from overcrowding, understaffing, lack of quality and waste a lot of time in waiting. Consequently, nearly 60% of Malaysians seek private primary care (Dyah Pitaloka & Rizal, 2006). While 73.2 % of the Malaysians seek private primary care are out-of-pocket which is pay by themselves, while only 18.8% of adult Malaysians are protected. Besides, by voluntary private health insurance (VPHI) (Yu, Whynes, & Sach, 2008). They



willing to pay by themselves or protected by voluntary private health insurance are often depend on their perspective on insurance.

Moreover there are number of life insurance option which pools the risks and exempt to pay any medical compensate usually correlative with out-of-pocket payment. Besides that, National Health Insurance (NHI) is also a type of insurance which is a compulsory insurance that provide by government. However, there are a lot of disadvantages of NHI are as followed: i) they are typically not flexible which depend on legislation and political expediency for their adjustment ii) high administrative costs due to inefficiencies structures: iii) increase the burdens to government when social insurance plan is inefficient. In conclusion, the disadvantage of public and private insurance influence the public perspective whether to buy private life insurance or not.

The literature suggests that there are number of factors that are important in determining the purchase behavior on health and life insurance. The predictions of purchase behavior can be explained by socioeconomic and demographic variables. Both socioeconomic and demographic variables stipulate a relationship between consumption on product and service. However some researchers' dissatisfied with the accuracy of predictions of purchase behavior based on socioeconomic and demographic variable. According to Day, Gan, Gendall and Esslemont (1991), there are various factors such as intention and attitude are potentially significant in explaining the individual purchase behavior besides using socioeconomic and demographic variables. People who have intention to provide for those who will go on living without them must ensure more than their material well-being. And life insurance is a way that enables people to deal with the ultimate loss in their time and on their terms. If failure to plan adequately for financial, consequence could bring hardship to your love one or your dependent. Refer to Tannahill (2013), he mentioned individual can use life insurance to protect their retirement planning because Insurance is available to help minimize the impact of some risks.

## 1.2 Problem Statement

Health and Life Insurance is a measure of financial security and also part of financial planning. This due to earning capacity may be ended abruptly due to death, old age, sickness or accident that may result in disability (permanent or temporary). Throughout the 21th century, health and life insurance in Malaysia has growth rapidly. However, there are majority of Malaysian who do not possess a health and life insurance policy. The number of health and life insurance holder are still left behind compare to other Asian country.

According to the statistic in year 2011, the GDP for health and life insurance in Malaysia is low at 2.9% which this percentage included Takaful Insurance as well stated in Loke & Goh, 2012 research. Compare to other Asian countries like for example health and life insurance GDP of Singapore is 6.1% while Japan occupied 7.5% which higher than Malaysia 3.2% and 4.6% respectively. Moreover, the statistic shown in Central Bank of Malaysia (BNM) 2013 indicated in year 2012 RM1.02 trillion sums insures was covered by Malaysian population and it is higher than the year in 2011 of RM946 billion which is increase 8%. However, this is still a large untapped health and life insurance in Malaysia. Through the research, this paper is to study what factors influenced individuals to take up health and life insurance as their financial protection. Besides, can define clearly the reasons Malaysian preserve their risk dropped behind critically compare to other countries.

Moreover, life insurance is a very important function to secure a family member as well as to provide security financial for individuals. If the premature death happened in the breadwinner, dire the children of losing the main stream income provider. (Redzuan, 2011). Besides, life insurance may hedge against the financial uncertainty which may alleviate the financial risks face by individuals. However, in Malaysia the demand of life insurance is yet not preferable.

Therefore, this research is going to examine what has actually influenced the demand of life insurance for Malaysians.

Next, it is not a secret that for the past few years, health care costs like prescription drugs, dental care, vision care and other health-related items have been spiraling out of control and of course it had led to an increase of medical expense as well. Medical expenses are expected to continue rising in the years ahead and this is confirmed not a joke or rumor, because a lot of surveys had been done and almost all of them predicted that the medical costs will rise as much as fifteen percent annually. Medical expenses are affected to everyone as what Chin (2014) mentioned, medical inflation is currently at 10% yearly and predicted to be rising. Next, taking a reference of Korea, Lee (2013) defined that the total hospitalization treatment and payment of depression patients increased by 21.76 percent from 12.584 billion KRW in 2004 to 15.322 billion KRW in 2007. This investigation research had resulted that human body is more vulnerable and prone to disease compare to last time.

The purpose of doing this research is because although the medical expenses is unaffordable by majority but there are still a lot of Malaysians who do not have their own health and life insurance. This phenomenon is not healthy as it showed that most of the Malaysians do not know how to perform their own financial planning and this will lead to the financial problem. While for the next research that created by Blumber, Clemans-Cope, and Blavin (2005) resulted that the medical expenses to cure the seriously illness had accounted for bankruptcies. These research had showed that health and life insurance is a must plan while they are managing their financial plan and worst come to worst will result on bankruptcy. Refer to Yong (2014), retrieved from AKPK statistic 26% credit bankruptcy rate is occupied by medical expenses in Malaysia.

## **1.3 Research Objectives**

Objectives will be set according to the problem statement. Therefore, the research objectives must clearly determine the aim of the research which includes the general objective and specific objective.

### **1.3.1 General Objective**

The main objective of this study is to explore the relationship between perception on health and life insurance purchasing decision with income level, knowledge on health and life insurance, income protection, risk attitude and social influence.

### **1.3.2 Specific Objective**

- To identify income level will influence individual demand on health and life insurance.
- To identify knowledge will influence individual demand on health and life insurance.
- To identify income protection will influence individual demand on health and life insurance.
- To identify risk attitude will influence individual demand on health and life insurance.
- To identify social influence will influence individual demand on health and life insurance.

## 1.4 Research Question

- Does **Income** is a valid predictor of determinants on demand of health and life insurance in Malaysia?
- Does **Knowledge** is a valid predictor of determinants on demand of health and life insurance in Malaysia?
- Does **Income Protection** is a valid predictor of determinants on demand of health and life insurance in Malaysia?
- Does **Risk Attitude** is a valid predictor of determinants on demand of health and life insurance in Malaysia?
- Does **Social Influence** is a valid predictor of determinants on demand of health and life insurance in Malaysia?

## 1.5 Hypotheses of the Study

H<sub>0</sub>: Income Level has no significant relationship on demand of health and life insurance in Malaysia.

H<sub>1</sub>: Income Level has significant relationship on demand of health and life insurance in Malaysia.

H<sub>0</sub>: Knowledge of health and life insurance has no significant relationship on demand of health and life insurance in Malaysia.

H<sub>1</sub>: Knowledge of health and life insurance has significant relationship on demand of health and life insurance in Malaysia.

H<sub>0</sub>: Income Protection has no significant relationship on demand of health and life insurance in Malaysia.

H<sub>1</sub>: Income Protection has significant relationship on demand of health and life insurance in Malaysia.

H<sub>0</sub>: Risk Attitude has no significant relationship on demand of health and life insurance in Malaysia.

H<sub>1</sub>: Risk Attitude has significant relationship on demand of health and life insurance in Malaysia.

H<sub>0</sub>: Social Influence has no significant relationship on demand of health and life insurance in Malaysia.

H<sub>1</sub>: Social Influence has significant relationship on demand of health and life insurance in Malaysia.

## 1.6 Significance of the Study

The purpose of this study is to examine the factors that influence Malaysian demand of health and life insurance. This research will identify individual may focus on which elements that may affect them on the demand. While, through this research it will be a guideline or a manual for financial institution (bank) and insurance company to let them conscious about an individual perception on demand of insurance. Other than that, this project may become a hint for a bank as well as insurance company to implement more preferable products or strategies to cope with individual mandate. While, the institutions may take into the consideration of the significant factors which may eventually help them on the profit generations and their business performance.

In addition, this research is searching for the elements which have influence the demand of health and life insurance purchase. Furthermore, it also examines the relationship between them. After the research been done, if all of the factors are in significant it may help bank and insurance company to grow stronger cause it possible to become an antidote for them to stay competitive, while to better understand on what makes individual consider before purchasing although medical cost has increase critically.

Moreover, this thesis can provides an experience and information for future researcher, professional or even a student who are already taken part into insurance sector or even for those who wish to join in future. This study have gathered the material from other researcher, therefore who might interested to do on the similar area can takes as a source of reference.

In conclusion, this study may provide new information and contribute several materials to cope with the limitation of past study and find out the factors on demand of health and life insurance in Malaysia.

## **1.7 Chapter Layout**

First of all, five sections have been structure out for this study. Chapter 1 discusses about the introduction, research background, problem statement, research objectives, research questions, hypotheses of the study and significance of the study. In the next section, chapter 2 provides an overview of literature on perspective towards health and life insurance. The methodology of this study in testing the effect of perspective on health and life insurance is explained in chapter 3. Moreover, chapter 4 presents the description of patterns and analyses of the data, while chapter 5 reports the discussion, conclusion and implications of the study.

## **1.8 Conclusion**

In this research is to examine perspective toward health and life insurance among Malaysia. In this study is using income level, knowledge on health and life insurance, income protection, risk attitude and social influence as independent variable to test this research.



## **CHAPTER 2: LITERATURE REVIEW**

### **2.0 Introduction**

Examine the factors that influenced purchasing behavior of individual on health and life insurance is implemented in this chapter. Later will discuss the previous researcher's point of view on the factors that will studies in this research. Besides, discovered the relationship between the demand on health and life insurance and the determinants with framework or theoretical model in order to proposed a conceptual framework. The independent variables that have been included are income level, knowledge of health and life insurance, risk attitude, income protection and social influence. Lastly, hypotheses will be carried out in the context after the reviews.

## **2.1 Review of the Literature**

### **2.1.1 Demand on Health and Life Insurance**

Health insurance plays an important role in health care financing system developing countries (Pauly, Zweifel, Scheffler, Prekar and Bassett, 2006). In Nyman (2014) mentioned demand on health insurance can be explained by two theories. First, conventional theory holds that purchase of health insurance among individual is due to they prefer certain losses to uncertain ones of the same expected magnitude. Second, the alternative theory treat health insurance is a purchased because consumers desire a transfer of income when ill.

Hwang and Geenford (2005) stated per capita premium expenditure is used to measure the demand of life insurance. While, Browne and Kim (1993) have the similar concept with the previous researcher. Arguments has arise by using premium income as a proxy for life insurance consumption this due to premiums means the total revenues equal to the price multiply output (Yuengert,1993; Cummins,Tennyson, and Weiss, 1999) Benefits paid to policyholders could have been used as an alternative to measure life insurance demand. This study acknowledges the existence of the problem incurred using premium income to represent the quantity of life insurance demanded.

### **2.1.2 Income Level**

In this era, the demand of purchasing health and life insurances are mostly affected by the employee's salary. There are two types of employees, one is blue collar and the other one is white collar. Normally, white collar employees will have the higher salary compare to the blue collar employees and hence they will have more intention to purchase health and life insurance compare with the blue collar. This had been proven by the researcher, Burnett and Palmer (1984). They stated that one of the factors that will affected the demand for health and life insurance is the customer's income. In addition, the researcher Pliska and Ye (2007) have the same point of view with demand of purchasing life insurance will significantly affected on how wealthy are the wage earners. Again look at the example of blue collar and white collar. White collar will have a stable job and stable income but for the blue collar they do not know their future income because their income is paid hourly. If they are not able to work for that particular days and their income for that month will be lesser but this is not for the white collar they can call for medical leave if they fall in sick. Eventually white collars will have a better and stable income and will have more intention to buy life insurance.

According to Liu, Gao and Rizzo (2011), the researcher found out that the health and life insurance package and coverage levels vary across the countries as the income level are different between each other. There are several standards of coverage in health and life insurance, but in most countries it still covers the cost of inpatient but not for outpatient services at all or only partially covered. This is why most of the low income wage earners might not want to buy the insurance as the insurance they purchase might not covered all type of medical expenses.

In addition to, the others research that wrote by Wang and Rosenman (2007) observed that there is direct impact between income and demand for health and life insurance. They suggest that location had played an important role on the

demand of purchasing the life insurance. Comparing these two location urban areas and rural areas, their education levels are difference as rural areas is a less developed areas and hence there will be lesser job opportunity offer compare to the developed areas. This had shown that why in rural areas their income are lower compare to the urban area and of course this had resulted that the low income wage earner has less intensive to buy the life insurance because the cost for life insurance is high and in their mindset, life insurance is a luxury product on rural areas as they do not know why life insurance is so important. On the other hand, in urban areas as there are having higher income and they will buy the life insurance as a protection for their future as they know the urgency having a life insurance.

Last but not least, Saliba and Ventelou (2007) stated that the demand of the health insurance is affected by income. Wage earners with higher income surely are the one who are not exempted from co-payment and they had to purchase health insurance in order to get themselves protected. Wage earners with lower income are exempted from co-payment, meanings that they do not need to disburse anything for the health care and hence they are 2/3 less unlikely to purchase health insurance than the customer with higher income. The low income wage earners are still covered by the compulsory system but in fact, only expenditures related to the 30 diseases are reimbursed at a 100% rate.

### **2.1.3 Knowledge on Health and Life Insurance**

Non-buyer respondents do not have life insurance due to lack of knowledge about insurance. As for knowledge factors, they haven't purchase the coverage because they have not understand well about the need for life insurance (Deloitte, 2011). In year of 2012 to year 2013 Prudential Research Study founded lower knowledge makes them have less confident that they will meet their financial goals and feel less prepare to make a wise financial decision, such as a decision on purchasing insurance. As a result, they may need some professional advices before making a wise decision in purchasing insurance (Life Insurance Association, 2011).

According to Sarwar and Qureshi (2013), lack of insurance knowledge is one of the most important barriers in purchasing health and life insurance, which include the respondents unaware about it, no one has suggested and not taken by friends, family and relatives. Right now the respondent's knowledge and awareness level about insurance are extremely low even in urban area. Knowledge about insurance is statistically significant and positively related with purchasing on health insurance. It is very important as it indicates building more awareness among the respondents of health insurance will have great impact on the probability of buying health insurance. (Bhat & Jain, 2006)

Salthouse (2002) stated education can be direct influence on the knowledge of insurance. Amount of education is commonly positively correlated with knowledge. Ioncica, Petrescu, Ioncica & Constantinescu (2012) stated more educated individuals are more likely to purchase insurance. This enables them to have a better access in healthcare and high security for their properties such as homes, cars, and others. Higher level of knowledge and education has the higher probability of purchasing private insurance. This is because they have lower costs of information to make decision in purchasing insurance between the complex plans offered by private insurance. Apart from that, more educated people are

more confident (Mcguire, n.d.). Thus, they are more confident in their insurance knowledge and able to give advice to others on the purchasing of insurance product.

#### **2.1.4 Income Protection**

Bequest is people leave their wealth to their heirs and the heirs will enjoy their inherited wealth. Usually, the larger the bequest leaves to heirs, the easier life for heirs in future life. Usually, a person who is breadwinners, they will try to leave the larger wealth to their heirs and the higher the demanding on the life insurance. The previous researchers, Lewis (1989) and Berheim (1991), founded the individual who desired to leave larger inheritance will increase the demand for life insurance. This due to they would like to protect their income from being used in uncertain event. Besides, the present value of consumption of the beneficiaries increases, the demand of life insurance increases as well because the policy holders know the uncertain life time and have the higher bequest motive.

Next, according to Fischer (1973) the standard model of demand for life insurance is assumes the breadwinner maximizes his or her expected uncertain lifetime by choosing life insurance. If the breadwinner dies, the beneficiaries will receive claims and it is shown that the demand for life insurance is derived from the bequest function alone. However, Lee (2012) proved a negative relationship between bequest motives and consumption on life insurance. When individual bequest motive is higher they will prefer to save instead of having life insurance as a legacy.

Arun (2012) also argue about individual buy life insurance in order to secure their children when premature death happened, it is an intended to protect their children

education and it is indirectly affected by income level. He founded it is very strong evidence for the hypothesis that life insurances are purchased by the low-income households for bequest motives.

### **2.1.5 Risk Attitude**

Risk attitude has significant impact on purchasing decision on health and life insurance as stated in Kruse and Ozdemir (2004). Risk can be defined as the probability or threat of quantifiable damage, injury, liability, loss, or any other negative occurrence that is caused by external or internal vulnerabilities, and that may be avoided through preemptive action. The study of risk attitude of individuals has become a big interest in the growing area of behavioral finance which focuses on their financial planning practices and risk management because insurance is the transfer of risk of a group or individual to another person or a company. Apart from that, individual risk attitude towards purchasing of health and life insurance has classified into several parts. First is about their financial risk to their perception on health risk, second pertaining to exposure of safety and environment risk and third is their experience of incidence. All of the three consciousnesses are in linkage.

Initially, risk averse decision maker buys more health insurance compare to less averse decision maker. In order to minimize their risk of losing their wealth due to some unexpected affairs occurred and may reduce risk like for example, sickness and cause by paying off their money on medical fees they attempt to purchase health insurance for protection. This statement has been stated in the research of Heo, Grable and Chatterhee (2013). There is similar concept applied by the researcher Font and Villar (2009).

Next, Halek and Eisenhauer, (2001) mentioned the education and income with risk attitude is interrelated when making decision on purchase on health and life insurance. Higher educational level will lead to a greater awareness of necessity of health and life insurance. In addition, health care cost is usually bother the lower income's people and Pauly (2007) study stated that risk averse and income level have negative relationship. Uncertainty about health condition and concern on their medical fees motivates individual's voluntary to purchase of health insurance that going to delivered money when bad events occur.

The researcher Stroe and Iliescu (2010) examine the positive relationship between risk averse on the safety and environment perspective with the purchase of life insurance. To eliminate worry it will increase the initiative of health and life insurance consumption. Individual would like to change the uncertainty to certainty by insuring their life by promise to get life insurance in case of death.

In addition, the research from Tennyson and Yang (2014) written the life experience may influence the demand on health and life insurance with the changing of the risk perception. Some demand on health and life insurance due to previously discern on informal care provided and increase their awareness on the risk having. (Courbage and Roudaut, 2008). Lastly, family member or close friend is experiencing on the incidence with no fund provided to undergo medical treatment, thus demand of health and life insurance been affected.

### **2.1.6 Social Influence**

Social influence includes peer effect, family, insurance agent and so on. These have been considering as one of the important factors which influence the demand on health and life insurance among individuals.



In Uibinate, Kucinkiene and Moullec (2013) research mentioned that social influence and health and life insurance demand indicated positive relationship. When individual purchase insurance is because other people are doing so. This due to it has create fear to themselves when they see their friends, neighbors and family involved in imprudent uninsured disaster and start to believe the important of insurance protection then purchase health and life insurance by then. Therefore, individual may have the similar preferences and can reduce their search cost as well. Moreover, they may feel embarrassed if they do not have protection after they learn from others. (Kunreuther & Pauly, 2005).

According to Giné et al. (2008), the information about the insurance products can be disseminating through the social networks. People conducted a more intensive marketing of the insurance product in the selected places and asked the residents help to promote the insurance product. Besides that, Dercon et al. (2011) established a peer referral treatment which benefit for the every subscriber who succeeds to convince individuals to buy. For instance, it gave a 10% incentive to every subscriber who succeeds to convince another potential client to purchase for the health and life insurance.

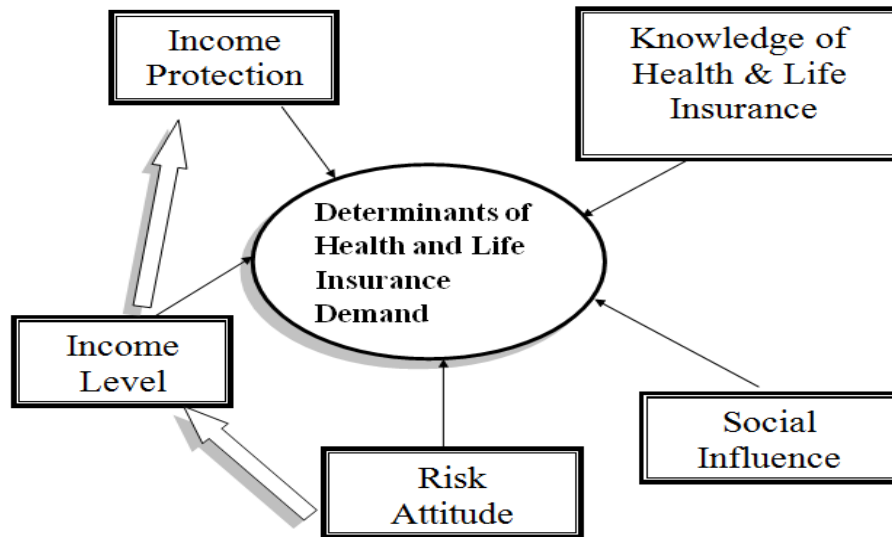
Individual may know the information of health and life insurance through their friends or people around. In Liu, Sun and Zhao (2014) research, individual have a better knowledge and experience with health insurance is through word- of-mouth communication and observational learning. In addition, define that rural area consider as peer groups because mostly they will live close in distance, usually they will know each other well. Therefore, rural residents share their knowledge of health and life insurance and may drives others to purchase on it.

Health and life insurance agent is very crucial to understand consumers' expectations and to be able to meet their standard expectations stated by Walker

and Baker (2000). First, insurance agent is a representative on insurance company to interact with customers and attract them towards health and life insurance. This has been measure towards the service quality by insurance agent.

According to Ackah and Owusu (2012), they found although many people know the word insurance from their peers, they seem not to purchase insurance to protect themselves for the future unpredicted misfortunes. On the other hand, researcher Cai, Janvry & Sadoulet (2011) stated households are more likely not to buy the insurance product if they have more weak related friends and friends that do not have influential farmers and strong knowledge in insurance.

## 2.2 Relevant Theoretical Models Review



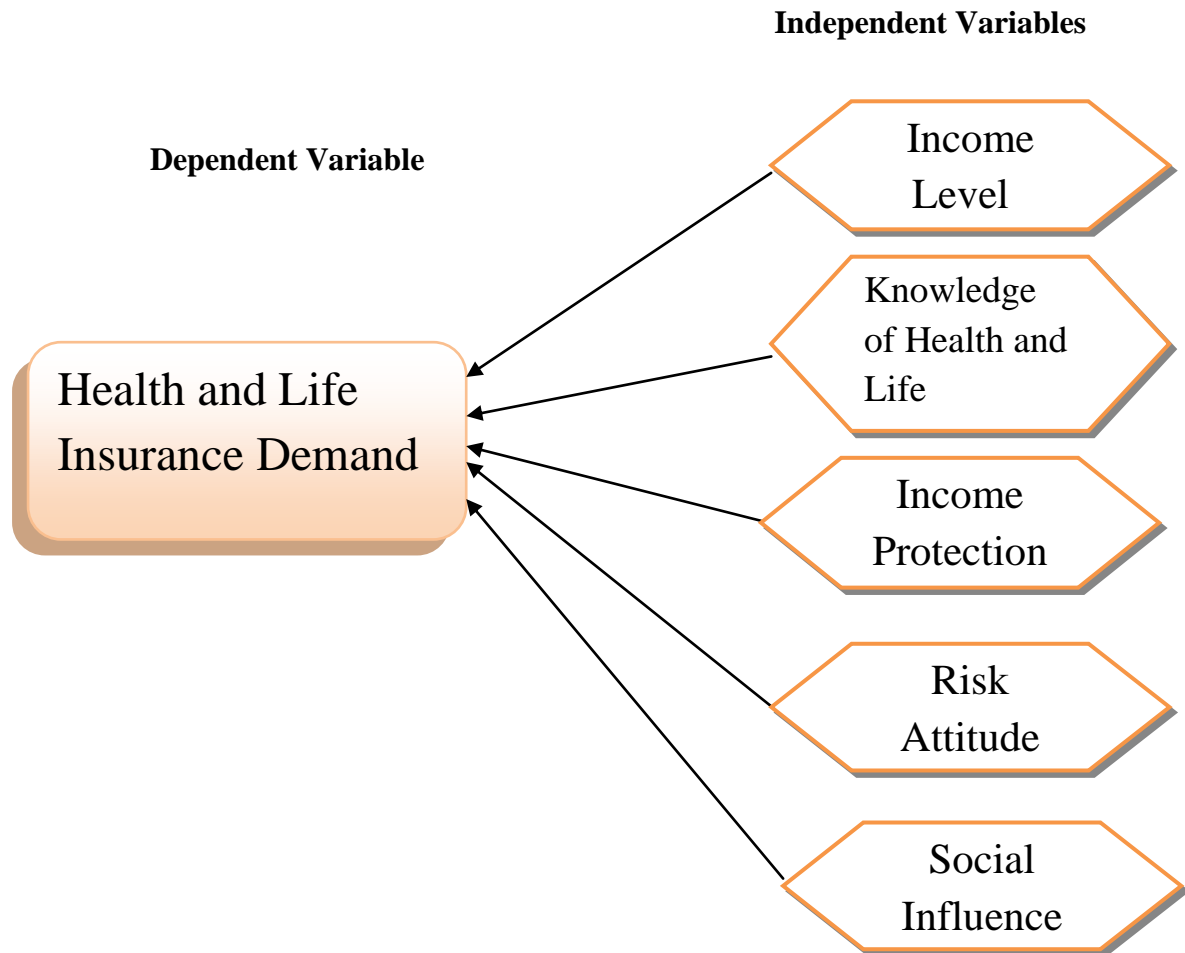
**Figure 2.1** The model of demand on health and life insurance

Besides that, Arun (2012) shows that policy holders buy life insurance to secure their beneficiaries and protected their income as well. He founded income protection for bequest motive is linked with policy holders' income in Sri Lanka. It has very strong evidence shows that life insurances are purchased for bequest protection by the low-income households. It means a negative relationship between income level and income protection.

In Cleeton and Zellner (1993) recommend the demand of health and life insurance is composed of the risk attitude and income level. When individual income is low enough, the risk attitude towards consumption of insurance will be considered. This may due to they afraid of income losses. While, it presents a negative relationship between risk averse and income level.

## 2.3 Proposed Theoretical/ Conceptual Framework

### The Determinants of Health and Life Insurance



**Figure 2.2 Proposed of theoretical framework**

The sketching for figure 2.2 is to propose the conceptual framework in this research. The concept is taken from the researcher Loke and Goh (2012) with five independent variables which are income level, knowledge on health and life insurance, income protection, risk attitude and social influence with a demand on health and life insurance as a dependent variable.

## 2.4 Hypotheses Development

H<sub>0</sub>: Income Level has no significant relationship on demand of health and life insurance in Malaysia.

H<sub>1</sub>: Income Level has significant relationship on demand of health and life insurance in Malaysia.

H<sub>0</sub>: Knowledge has no significant relationship on demand of health and life insurance in Malaysia.

H<sub>1</sub>: Knowledge has significant relationship on demand of health and life insurance in Malaysia.

H<sub>0</sub>: Income Protection has no significant relationship on demand of health and life insurance in Malaysia.

H<sub>1</sub>: Income Protection has significant relationship on demand of health and life insurance in Malaysia.

H<sub>0</sub>: Risk Attitude has no significant relationship on demand of health and life insurance in Malaysia.

H<sub>1</sub>: Risk Attitude has significant relationship on demand of health and life insurance in Malaysia.

H<sub>0</sub>: Social Influence has no significant relationship on demand of health and life insurance in Malaysia.

H<sub>1</sub>: Social Influence has significant relationship on demand of health and life insurance in Malaysia.

## **2.5 Conclusion**

Previous literature done by previous researchers has providing us a space to be more understands on the impact of demand on health and life insurance. In the context, the researchers examine how those independent variables are going to affect the demand on health and life insurance. The researchers determine and explain more detail on the relationship between each independent variable and the purchasing behavior on health and life insurance. In chapter 3, the researchers are going to discuss the research methodology in this paper.

## **CHAPTER 3: METHODOLOGY**

### **3.0 Introduction**

This chapter is meant to introduce clearly the overall of the research methodology in order to perform a successful research study. This chapter also discuss about the term of research design, data collection methods, sampling design, operational definitions of constructs, measurement scale and methods of data analysis.

### **3.1 Research Design**

It is a detailed outline of how a research is conducts. A research design will involved how the data is collected, what instruments to be used and the instrument can be use to analyze the data collected. Quantitative research is fitted to this research and find it more appropriate this due to the purpose of this study is to examine the factors influenced the demand on health and life insurance among Malaysian and the relationship of income level, knowledge on health and life insurance, income protection, risk attitude and social influence. Quantitative methods emphasize on objective measurements and numerical analysis of data collected through polls, questionnaires or surveys. Aliaga, M. and Gunderson, B. (2005) stated quantitative research focuses on gathering numerical data and generalizing it across groups of people.

This research is a descriptive research because it consider as a type of survey method. During this survey research, the respondents or participants will answer

question through interviews or questionnaires by Jackson (2009). Through questionnaire it can accurately explain the relationship of income level, knowledge on health and life insurance, income protection, risk attitude and social influence factors towards demand of health and life insurance among Malaysian.

## **3.2 The Data Collection Methods**

This research is using primary data to conduct. Besides, the data collection process is the main modus for this study.

### **3.2.1 Primary Data**

Primary data (Hair, Bush & Ortinau, 2006) means the materials are never published before in anywhere else and also it is the original data collected through surveys, observation as well as research. Primary data can be considered as first hand information and using the data for the purpose that have already intended. Primary data can be collected through numerous methods, like for instance Direct Personal Observation, Indirect Oral Interviews, Mailed Questionnaire, Schedule Method and Local Agents. Face to face survey or interview is one of the examples from the direct personal observation concept. This method is provide more reliable information and although it is time consume and may be costly. Due to the respondent will more practical and honest to answering question compare by using other method.



### **3.3 Sampling Design**

#### **3.3.1 Target population**

Population is the entire set of unit for which the survey data is used to make inferential. Target populations apply for this research is from Malaysia's citizen. According to Malaysia demographic profile 2013 stated overall 29,628,392 populations.

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

Sampling frame consider an order of people from a population, while, the people who live in a particular place for certain treatment become part of the sampling list. For this study, the sampling sizes occupied 240 sets questionnaires and Malaysia's citizen are targeted. Whereas, it is impossible to distribute for overall population because it is too large and therefore the sampling locations were within Malaysia for four regions with north and south states been conducted through convenient sampling.

#### **3.3.3 The Sampling Elements**

Target population about the information will be obtained through sampling unit. The purpose of this research is to identify the factors have influence the demand for health and life insurance. Since the research is to notice what affected individual purchasing decision in Malaysia, hence the sample target in this research to meet the objective is:

- Samples should be the residents from Malaysia.

### 3.3.4 Sampling Techniques

The sampling technique that used in this study is a non-probability. It is refer to the samples that gathered in a process does not give every individual equal chance of being selected in a population. The reason of using non-probability in this study is due to the population in Malaysia is too large and unable to collect from the entire population. Therefore, choosing non-probability as sampling technique which is using personal knowledge, convenience sampling and also based on judgment to choose the elements in the large target sizes will be better in this study. It could save up time and costs due to non-probability are convenience. In addition, this research is using convenient sampling. In the research of Babbie (2001) mentioned convenient sampling is actually a non-probability sampling techniques which it is convenient accessibility and proximity.

### 3.3.5 Sampling Size

Sampling size defined as the number of elements to be included in this research. This study involved 240 questionnaires and distributed through hand by hand to the respondent in Malaysia. Wright (2009) stated the larger the sample size, the more reliable and closely the data may match with the overall population.

According to Green (1991) indicated refer rules of thumbs for individual predictors  $n > 104 + m$ . Which  $m$  refers to independent variables, whereas  $n$  imply sample size. It means the sample size must exceed 109. While, for multiple correlations require  $n > 50 + 8m$ . This shown the sample size has to go beyond 90. Research of Harris (1985) has the same point of view with the previous researcher regarding the sample size in order to get almost statistically significant result and more reliable.

## **3.4 Research Instrument**

### **3.4.1 The Questionnaire Survey**

In this study, it is using questionnaire to do the research in order to achieve the objective of the study. A questionnaire is a tool for collecting standardized data about a particular issue from the public. It includes clear instructions with a multiple of questions by providing enough space for answers. The reason of using questionnaires because it able to link with a big number of respondents in a short period and low cost. In addition, numerous of information able to collect through face to face interview. Besides, it can conducted through face-to-face interview modus and this method creates a valid and reliable result after the data gather. (Kahn and Cannel, 1957).

### **3.4.2 The Questionnaire Design**

First the questionnaire design consists of cover page. Besides, the content of the questionnaires been classified into three parts which are part A, part B and also part C (Appendix I). For cover page it consists of a brief explanation and details of present researcher's objectives. Moreover, contents of questionnaire in part A are demographic section. The personal particular of the respondents will be collected in order to use in this project. Respondent's gender, age, monthly income, educational level and geographical area will be collect as the demographic have the relation with this research. Next, in part B, general information which related to this research like for instance, which agency prefer, how many policies hold,

annual premium and types of insurance possess also been conducted. Section C contains questions that aim to determine what factors influenced public towards demand of health and life insurance.

### 3.4.3 The Pilot Study

Pilot test is an important issue in this study because it provides pre-test for questionnaire before the officially set of questionnaires are distributed. Therefore, the pilot test has to carry out when the preparatory edition of questionnaire is ready. This is to ensure the questions are set in a correct direction and avoid any misinterpretation of question. In pilot test, the group of respondent is same to target respondent. 50 sets of questionnaires are given out and reliability test is conducted to ensure the reliable of the question set.

Table 3.1 Reliability Analysis

<b>Variables</b>	<b>Cronbach's Alpha</b>	<b>Items's Number</b>
Demand of Health and Life Insurance	0.773	4
Income Level	0.811	4
Knowledge of Health and Life Insurance	0.766	4
Income Protection	0.812	5
Risk Attitude	0.732	5
Social Influence	0.868	4

From reliable test, the result is most reliable. In this research, 50 survey forms were used to run for pilot test, with 26 items included into testing. From the table above, 4 items were used to measure demand of health and life insurance, income level, knowledge of health and life insurance and

social influence. Four of these variables produced the alpha coefficient of 0.773, 0.811, 0.766 and 0.868 respectively. Other variables which include income protection and risk attitude were measured by 5 items, with 0.812 and 0.732 alpha coefficient respectively.

### **3.5 Constructs Measurement**

Scale is used to measure which a system or series of marks. The researcher Sekaran (2003) also says scale is defined as a tool to distinguished individuals variable to the other. In questionnaires, three type of scales are implemented which contain nominal scale, ordinal scale and interval scale.

#### **3.5.1 Nominal Scale**

It can be defined as a distinct classification which simply some placing of data into categories. It does not have any numerical like gender, religion and occupation and it sometime could be called as labels. Yes or No scale is nominal which often use in research activities and does not have any order or distance between Yes or No. In this research questionnaire section A, those questions are based on nominal scale. Code1 to code 4 will be appoint into four groups.

### **3.5.2 The Ordinal Scale**

It means a measurement of values what is important and significant. It is a ranking and no objective distance between any two points on your subjective scale. It often measures of non-numeric concepts like happiness and satisfaction which order from the top to bottom or biggest to smallest.

### **3.5.3 Interval Scale**

Interval scale is a numeric scales to measure the order and also the exact differences between the values. This means that the scale and be interpret differences in the distance. Besides, the interval scale can also defined by metrics such as logarithms. In research, question in section C are based on interval scale which is in the form of Likert scale. The Likert scales in the question include five different points of scales: 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree) and 5 (strongly agree).

## **3.6 Data Processing**

Statistical Package for Social Sciences (SPSS) version 16 is being used to interpret data after the data is completely collected by researchers. Data collected from survey need to be undergoing four steps processes which are questionnaire checking, second transcribing third data coding and the last will be data editing.

### **3.6.1 Questionnaire Verification**

Survey answer need to be checked by researcher and endure the interviewing quality of data collected. Moreover, questionnaire checking involves eliminating unacceptable questionnaires such as incomplete answered. This process is significant to influence the whole objectives of this research, because it assist researchers to detect errors occur and be able to undergo a prompt corrective action.

### **3.6.2 The Data Editing**

This is a process to examine the collected raw data through questionnaire survey to detect errors and omission. If detected, correct or edit it immediately to avoid any unnecessary event occurs during data processing.

### **3.6.3 The Data Coding**

Coding can be explained as a transformation of data into a form of understands by SPSS software. Usually it will assign a code with numbers to indicate particular reaction to certain question. Besides, data record and coding have the designated place to enter. It needs to develop in every variable and questions as well. The data will be easy for interpret and research objective can be easily interpret is the answers are well categorized.

### **3.6.4 The Data Cleaning**

It is carry out by transferring all data into computer. It is a process of detecting and correcting any inaccurate or corrupt records. In addition, data cleaning is a broad verification for the consistency as well as rectify for the missing data. Usually consistency checking is to identify the inconsistent with the logical, range exceeded and also for the extreme value.

## **3.7 Data Analysis**

Data analysis focuses on applying statistical or logical techniques to describe and evaluate data. From this study, quantitative data analysis is applied. The programs such as Microsoft excel and SPSS software is the major tools used to enter overall data input. Thus, data is analyzed and hypothesis is examined. This will contribute to statistical result and it will represent in graphical forms.

### **3.7.1 The Descriptive Analysis**

It describes data collection's main features. The objective to do this is to summarize large sets of information that obtained from the respondents. Descriptive analysis also can be defined as the process that used to determine the reaction of the responses. From SPSS, questionnaires categorized into three sections (section A, B and C). Chapter 4 will continue to discuss further about the result, this will determined by using graphs and tables.



### 3.7.2 Reliability Test

Reliability test is used to measure the quality and stability of the performance. Once obtained the same result repeatedly, this can be considered as reliable. The internal consistency reliability test is applied in this research. This test is that to judge the consistency of the result across the item. Cronbach's alpha( $\alpha$ ) defined that the inter-correlations among test items means the higher the alpha, the more reliable of this scale. (Cronbach, 1951).

Table 3.2

Cronbach's alpha ( $\alpha$ )	Internal consistency
$\alpha \leq 0.6$	poor
$0.6 < \alpha \leq 0.7$	Moderate
$0.7 < \alpha \leq 0.8$	Good
$0.8 < \alpha \leq 0.9$	Very Good
$\alpha > 0.9$	Excellent

### 3.7.3 Normality Test

Normality tests are to define whether the data is well-modeled by normal distribution and also to compute how the data to be normally distributed. Normality is one of the very important common assumptions in statistical procedures. Furthermore, in the research of Thode (2002) mentioned skewness and kurtosis is commonly used to test normality.

In the research of Alderson and Bachman (2004) stated the value of skewness and kurtosis can be in three categories which are positive, negative and center on zero. While, according to rules of thumb, if the number the result of skewness and kurtosis is in between -2.0 and +2.0 it indicated a reasonably normal distribution.

### 3.7.4 Pearson Correlation

Pearson correlation is a test used to measure the strength of a linear association and examine the relationship between a single dependent variable and one or more independent variables. The dependent variable which is health and life insurance demand and independent variables which are income level, knowledge on health and life insurance, income protection, risk attitude, and social influence. Pearson correlation test can be tested into two groups which are population ( $R$ ) and sample ( $r$ ). In this research, correlation is using sample to measure the relationship.

There can be categorized into three types of correlation which include positive correlation, negative correlation and no correlation. These correlations characterized by concerning on one variable increases what happens to the other variable. For positive correlation, it exists when one variable increase, the other variable also increase, and vice versa. Negative correlation happens when one

variable increase as the other variable decrease, and vice versa. However, when changing in one variable does not tend to either increase or decrease other variable is known as no correlation. The general rule of thumb can applied to differentiate the correlations. (Ratner, n.d.)

Table 3. 3 : Correlation Coefficient Interpretation

Value	Pearson Correlation, r
+1	perfect positive linear relationship
+0.7 to +1.0	strong positive linear relationship
+0.3 to +0.7	moderate positive linear relationship
0 to +0.3	weak positive linear relationship
0	no linear relationship
0 to -0.3	weak negative linear relationship
-0.3 to -0.7	moderate negative linear relationship
-0.7 to -1.0	strong negative linear relationship
-1	perfect negative linear relationship

### 3.7.5 Linear Regression

Regression analysis is a method for modeling the relationship between dependent variable and one or more independent variables. It consist two types of regression analysis which are simple linear regression and multiple linear regressions. The analysis is using  $P$  value  $<0.01$ . In Nuzzo ( 2014 ) indicated a common index for the strength of evidence was 0.01 and usually interpreted as 'very significant.

'Simple linear regression is a model with dependent variable and one independent variable however multiple linear regressions is a model with dependent variable and more than one independent variable. The form of each type regressions are:

Simple Linear Regression:  $Y = a + bX + u$

Multiple Linear Regression:  $Y = a + b_1X_1 + b_2X_2 + B_3X_3 + \dots + B_tX_t + u$

Where:

$Y$ = Dependent Variable

$X$ = Independent Variable

$a$ = Intercept

$b$ = Slope

$u$ = Residual

### **3.8 Conclusion**

As conclude, this chapter discusses about the research methodology adopted in this research. It solves the problems arise from the research and discussion of research questions. The purpose of this project, the methods used to conduct the hypotheses and research questions, defining the target population precisely, kind of questionnaires, techniques used and the data analysis's findings were discussed, presented and justified in this chapter. In coming chapter, chapter 4 is provides and present the pattern of data analysis results. Besides that, it is determines the possibility for testing of hypotheses and aim to examine the relationships between each variables.

## **CHAPTER 4: DATA ANALYSIS**

### **4.0 Introduction**

Chapter 4 is about summarizing all result by going through the steps of inspecting, analysis and discovered the useful raw data which acquire through questionnaires. The first section discuss about the descriptive analysis, second section will be scale measurement, third, inferential analyses and the last part will me summarize the whole chapter. By using SPSS 16.0 and Microsoft Excel it is able to support for the analyses. Subsequently, descriptive and influential are used to process the data. In this research, there are 240 sets of questionnaires have been distributed and collect face to face through interview.

### **4.1 Descriptive Analysis**

Descriptive analysis discuss about the features and the pattern of a collection of information from survey by distributed questionnaire.

## 4.1.1 Respondent Demographic Profile

First, in this research, it consists of 6 questions of respondents' demographic profile which are gender, age, race, geographical area, monthly income and educational level.

### 4.1.1.1 Gender

Table 4.1 Frequency distribution for respondent's gender

	Frequency	Percent
Valid Female	113	47.1
Male	127	52.9
Total	240	100.0

In the table 4.1 shows the frequency distribution for respondent's gender. Based on the table 4.1, the result shows male respondents are ahead than female respondents with only 5.8% which occupy 52.9% of the total respondent. Furthermore, 47.1% of the total respondents are female respondents. Differentiate occur between male and female is due to the research is using convenience technique when doing sampling.

#### 4.1.1.2 Age Group

Table 4.2 Frequency distribution of respondent's age

	Frequency	Percent
Valid less than 25 years	47	19.6
25 to 35 years	77	32.1
36 to 50 years	73	30.4
More than 50 years	43	17.9
Total	240	100.0

Based on Table 4.2, 240 respondents are answering the questionnaires. The highest respondents receive are fall into the ages group of 25-35 years old. The lowest respondents are found in age group of 50 years old and above are 17.9%. Next, for the age group of 36-50 years old the total respondents received are 30.4% and for the age group that is lesser than 25 years old are about 19.6%.

#### 4.1.1.3 Geographical Area

Table 4.3 Frequency distribution of respondent's geographical area

	Frequency	Percent
Valid Urban Area	133	55.4
Rural Area	107	44.6
Total	240	100.0

Based on Table 4.3, 133 or 55.4% of respondents are come from urban area. However, 107 respondents are come from rural area which consists of 44.6%.



#### 4.1.1.4 The Monthly Income

Table 4.4 The frequency distribution of respondent's monthly income

		Frequency	Percent
Valid	Less than RM2,000	74	30.8
	RM2,001~RM4,000	102	42.5
	RM4,001~RM6,000	45	18.8
	RM6,001~RM8,000	11	4.6
	Above RM8,001	8	3.3
Total		240	100.0

Table 4.4 indicated the monthly income of 240 respondents. Initially, respondents with income range between RM2,001-RM4,000 have occupied the highest of this survey which is 42.5%. The lowest are range between RM8,001 (3.3%) and above. In addition, the monthly income of less than RM2000 hold by 74 respondents (30.8%) and monthly income range between RM4,001-RM6,000 and RM6,001-RM8,000 take up by 45 respondents and 11 respondents respectively.

#### 4.1.1.5 Educational Level

Table 4.5 Frequency distribution of respondent's educational level

	Frequency	Percent
Valid Primary	24	10.0
Secondary	92	38.3
Diploma/College	51	21.2
Undergraduate	27	11.2
Postgraduate	40	16.7
Professional Qualification	6	2.5
Total	240	100.0

Table 4.5 illustrates the result for 240 respondents from different educational background. First of all, the highest respondents from the survey are about 92 (38.3%) where there are from the secondary high schools. Follow by diploma or college, which occupied 51 (21.2%) respondents. Next, primary, undergraduate and postgraduate seize 24 (10%), 27 (11.2%) and 40 (16.7%) respondents respectively. Last, the lowest frequency has been occupied by professional qualification which stated 6 (2.5%) respondents only.

## 4.1.2 General Information

### 4.1.2.1 Do you purchase health and life insurance?

Table 4.6: Frequency distribution for respondent's purchasing power of health and life insurance.

	Frequency	Percent
Valid Yes	209	87.1
No	31	12.9
Total	240	100.0

From the Table 4.6, the frequency distribution for purchasing power of health and life insurance of respondents. There are 209 respondents was currently purchasing health and life insurance. However, the remaining 31 respondents do not purchase health and life insurance. This means that 87.1% of respondents were purchasing health and life insurance among the total number of 240 respondents.

#### 4.1.2.2 How many health and life insurance policies hold?

Table 4.7: Frequency distribution for number of health and life insurance policies hold by respondents

		Frequency	Percentage
Valid	0	33	13.8
	1	120	50.0
	2	74	30.8
	3	6	2.5
	more than 3	7	2.9
	Total	240	100.0

Based on table 4.7, it shows the frequency distribution for number of health and life insurance policies hold by respondents. Half of the 240 respondents hold only one kind of health and life insurance. 74 out of 240 respondents hold two types of health and life insurance. Only 6 (2.5%) and 7 (2.9%) of respondents owned three types and more than three types of health and life insurance respectively. However, 13.8% of respondents owned none of the health and life insurance.

#### 4.1.2.3 How much is your annual premium?

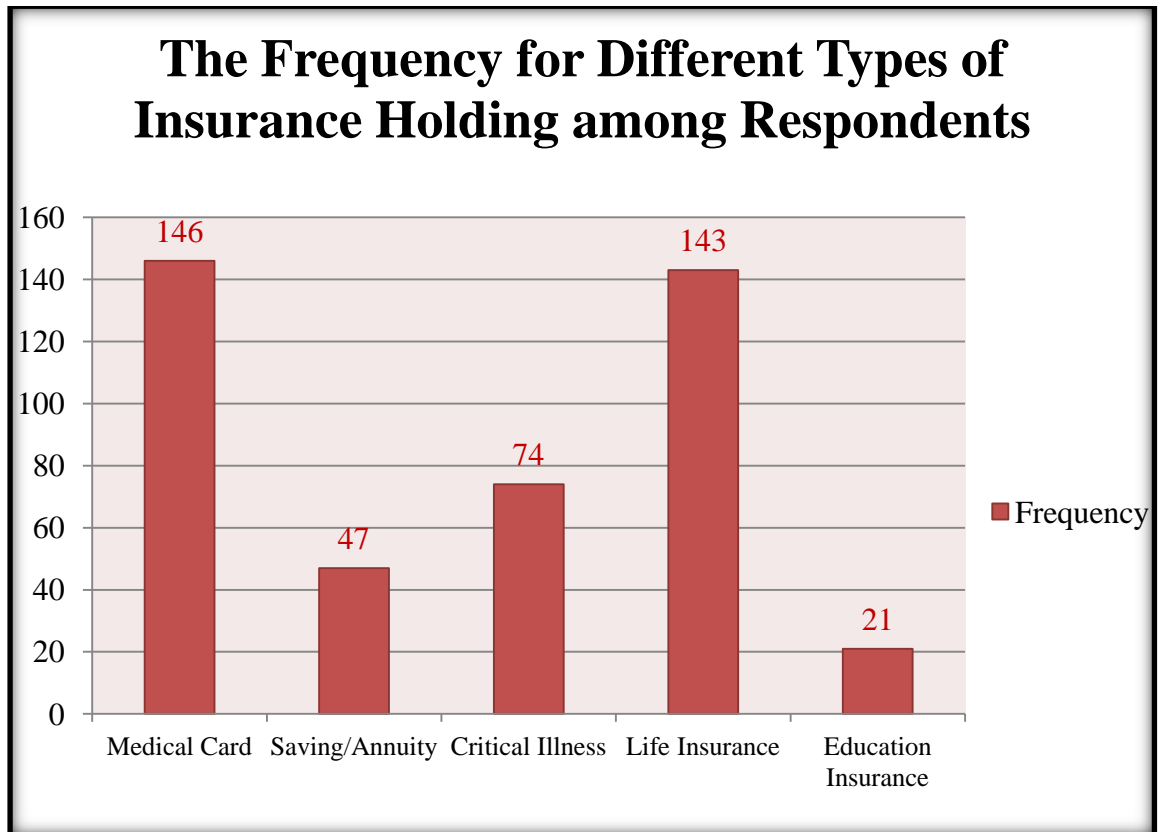
Table 4.8: Frequency distribution for respondent's annual premium

		Frequency	Percent
Valid	0-1000	56	23.3
	1000-2000	90	37.5
	2000-3000	51	21.2
	3000-4000	29	12.1
	more than 4000	14	5.8
	Total	240	100.0

Table 4.8 claimed that the frequency distribution for 240 respondents of annual premium. The most is 90 (37.5%) of the respondents paid the annual premium is about RM1,000 to RM2,000, while the least is only 14 (5.8%) of the respondents paid more than RM4,000 to the insurance provider. 56 (23.3%) of the respondents paid within RM1,000, 51 (21.2%) of them paid for RM2,000 to RM3,000 and 29 (12.1%) of them paid for RM3,000 to RM4,000.

#### 4.1.2.4 Types of Insurance Holding

Figure 4.1: Frequency for different types of insurance holding among respondents.



Source : Developed for research

Refer to figure 4.1 which shows by using bar chart, the most respondents owned the insurance is medical card, which indicates 146 respondents. This followed by the life insurance, it shows 143 respondents. The next is 74 respondents who owned critical illness and continue with 47 respondents who hold saving or annuity. The least respondents hold the insurance is education insurance, which has only 21 respondents.

### 4.1.3 Central Tendencies Measurement of Constructs

#### 4.1.3.1 Income Level on Demand of Health and Life Insurance

Table 4.9: Income Level

	Mean	Ranking
1. I will place portion of my monthly income as health and life insurance premium.	3.3292	4
2. Once income increases I will demand more health and life insurance.	3.4000	2
3. I will buy health and life insurance regardless of how much income I earn.	3.4333	1
4. My primary commitment is on health and life insurance.	3.3458	3

Table 4.9 shows the mean and ranking of income level on demand of health and life insurance base on our respondents selected. Based on our result, the highest mean value is 3.4333 rank number 1 which is “I will buy health and life insurance regardless of how much income I earn”. Followed by “Once income increases I will demand more health and life insurance” which the mean value is 3.4000. Rank number 3 with the mean value of 3.3458 is “My primary commitment is on health and life insurance”. And the lowest value 3.3292 rank number 4 is “I will place portion of my monthly income as health and life insurance premium”.

### 4.1.3.2 Knowledge on Demand of Health and Life Insurance

Table 4.10 Knowledge on health and life insurance

	Mean	Ranking
1. Knowledge of insurance protection is one of the factors that influence me on health and life insurance demand.	3.6042	2
2. I am very confident that I have enough insurance knowledge which incentives me to purchase on health and life insurance.	3.1292	3
3. I am very comfortable to give advice to friends and family members on the insurance product that will suit their needs and is worth buying.	3.0917	4
4. I prefer to have a professional advice about insurance products before purchase health and life insurance.	3.6875	1

Table 4.10 shows the mean and the ranking of knowledge on demand of health and life insurance base on our respondents selected. In the table 4.10 shows “I prefer to have a professional advice about insurance products before purchase health and life insurance” has the highest mean value 3.6875 and rank number 1. While the second highest mean value 3.6042 is “Knowledge of insurance protection is one of the factors that influence me on health and life insurance demand”. Followed by “I am very confident that I have enough insurance knowledge which incentives me to purchase on health and life insurance” has the value of 3.1292. For the” I am very comfortable to give advice to friends and family members on the insurance product that will suit their needs and is worth buying” which is rank number 4 with the value of 3.0917.



### 4.1.3.3 Income Protection on Demand of Health and Life Insurance

Table 4.11: Income Protection

	Mean	Ranking
1. I feel that guaranteed death benefits are the critical design element.	3.4125	2
2. I am a bread winner in family.	3.1625	4
3. I will purchase insurance to avoid out of pocket health care expenditure.	3.5542	1
4. I have a mortgage on hand and I purchase health and life insurance to paid off in the event after I death.	3.1417	5
5. I will buy health and life insurance in order to let my children to continue their education after I death.	3.3667	3

The table 4.11 shows the mean and ranking of income protection on demand of health and life insurance base on our respondents selected. Through the result, “I will purchase insurance to avoid out of pocket health care expenditure” has the highest mean value which is 3.5542 and rank number 1. Next, for the second highest value 3.4125 and third highest value 3.3667 are “I feel that guaranteed death benefits are the critical design element” and “I will buy health and life insurance in order to let my children to continue their education after I death”. Rank number 4 is “I am a bread winner in family” which the value is 3.1625. The lowest rank with the value 3.1417 is “I have a mortgage on hand and I purchase health and life insurance to paid off in the event after I death”

#### 4.1.3.4 Risk Attitude towards Demand on Health and Life Insurance

Table 4.12: Risk Attitude

	Mean	Ranking
1. I am risk averse person.	3.2292	4
2. Health and Life Insurance provide a feeling of financial safety.	3.5875	1
3. Pass sickness experience on me and people around will drive me to purchase on health and life insurance.	3.3083	3
4. Payment guaranteed will build my confidence to purchase health and life insurance.	3.5167	2
5. My occupation will influence my demand on health and life insurance.	3.2208	5

In the table 4.12 shows the mean and ranking of risk attitude towards demand on health and life insurance base on our respondents selected. The first ranking “Health and Life Insurance provide a feeling of financial safety” has the highest mean value 3.5875. The second ranking with the mean value 3.5167 is “Health and Life Insurance provide a feeling of financial safety”. Followed by “Pass sickness experience on me and people around will drive me to purchase on health and life insurance” has the third highest value which is 3.3083. Rank number 4 and 5 with the value 3.2292 and 3.1108 are “I am risk averse person” and “My occupation will influence my demand on health and life insurance”.

#### 4.1.3.5 Social Influence towards Demand on Health and Life Insurance

Table 4.13: Social Influence

	Mean	Ranking
1. The decision on purchasing health and life insurance is influence by my family, friends and et al.	3.5250	1
2. I will purchase health and life insurance when my friends purchase.	2.8958	4
3. Health and life insurance demand is cause by word-of-mouth about the benefit.	3.1417	2
4. I buy health and life insurance is due to the recommendation from my friends.	3.1208	3

In the table 4.13 shows the mean and ranking of social influence towards demand on health and life insurance base on our respondents selected. From the result, “The decision on purchasing health and life insurance is influence by my family, friends and et al” has the highest mean value which is 3.5250 and it ranks number 1. Rank number 2 with the value 3.1417 is “Health and life insurance demand is cause by word-of-mouth about the benefit”. Followed by “I buy health and life insurance is due to the recommendation from my friends” with the value of 3.1208 which rank number 3. While for the lowest ranking with the value of 2.8958 is I will purchase health and life insurance when my friends purchase”.

#### 4.1.3.6 Demand on Health and Life Insurance

Table 4.14: Demand on Health and Life Insurance

	Mean	Ranking
1. I will demand on health and life insurance.	4.1541	1
2. I am satisfied with the number of policies I hold.	2.3083	4
3. My current insurance coverage is more than enough to cover my demand.	2.3958	3
4. I realize health and life insurance is important.	3.6083	2

Table 4.14 shows the mean and ranking for the dependent variable which is demand on health and life insurance. The highest mean value between four question is “I will demand on health and life insurance” which is 4.1541 and rank number 1. While for the second ranking is “I realize health and life insurance is important” with the value of 3.6083. It followed by “My current insurance coverage is more than enough to cover my demand” which has 2.3958 mean value. And the lowest value between four questions is “I am satisfied with the number of policies I hold” with the value of 2.3083.

## 4.2 Scale Measurement

### 4.2.1 Reliability Analysis

Table 4.15: Reliability Analysis

Variables	Cronbach's Alpha	Number of Items
Demand of Health and Life Insurance	0.771	4
Income Level	0.809	4
Knowledge of Health and Life Insurance	0.768	4
Income Protection	0.828	5
Risk Attitude	0.735	5
Social Influence	0.805	4

Cronbach's alpha is applied in this study, the purpose is to test the internal reliability for the 6 questions with 26 items.

Cronbach (1951) stated in his work that alpha coefficient reflexes reliability. Coefficient less than 0.6 indicate poor reliability, however coefficient between 0.6 and less than 0.7 consider as moderate. Score between 0.7 and less than 0.8 are good, coefficient between 0.8 to less than 0.9 are very good. It is suggested that the nearer the value of alpha coefficient the higher the reliability.

Based on table 4.15, 4 items have been used in this research to measure demand of health and life insurance, alpha coefficient produced is 0.771. 4 items is included to measure income level, alpha coefficient equal 0.809. While 0.768 alpha coefficients shown in knowledge of health and life insurance, takes account of 4 items. Moreover, income protection measured using 5 items produces 0.828 alpha coefficients. Same amount of items included in risk attitude shows 0.735 alpha coefficients. Lastly, it is 4 items to measure social influence and the outcome is alpha coefficient 0.805.

Referring to Cronbach's theory, it is suggested that all items included into testing are good enough as every variable is able to produce alpha coefficient at least level of 0.7, and shows higher coefficient providing a prove that all item used in measuring constructs are stable and consistent. Thus, it is believed that the relationships among the items are capable and reliable for the analysis.

#### 4.2.2 Normality Test

Table 4.16 Normality Test

<b>Variables</b>	<b>Skewness</b>	<b>Kurtosis</b>
Demand on Health and Life Insurance	-0.359	0.338
Income Level	-0.573	0.975
Knowledge on Health and Life Insurance	0.047	0.399
Income Protection	-0.08	-0.561
Risk Attitude	-0.362	0.358
Social Influence	-0.203	-0.615

Table 4.16 has shown the normality distribution between the variables which based on the measurement of skewness and kurtosis. This is tests on whether the data is well-modeled by normal distribution and also to compute how the data to be normally distributed. In addition, in the research of Alderson and Bachman (2004) based on rules of thumb, if the number the result of skewness and kurtosis is in between -2.0 and +2.0 it indicated a reasonably normal distribution. The result above stated, skewness in the variables of Demand of Health and Life Insurance, Income Level, Income Protection, Risk Attitude and Social Influenced with -0.359, -0.573, -0.08, -0.362, -0.203 respectively. All are in negative sign, however, Knowledge of Health and Life Insurance shown 0.047 positive values.

Skewness result is in the eligible range between -2.0 and +2.0. Next, for kurtosis all the variables are in the range of -2.0 and +2.0 as well. 0.338, 0.975, 0.399, -0.561, 0.358 and -0.615 with demand of health and life insurance, income level, knowledge on health and life insurance, income protection, risk attitude and social influence respectively. These indicated that data is normality distributed.

### 4.3 Inferential Analyses

#### 4.3.1 Pearson Correlation Analysis

Table 4.17: Pearson Correlation Analysis

Correlations							
		Income Level	Knowledge of Health and Life Insurance	Income Protection	Risk Attitude	Social Influence	Demand on Health and Life Insurance
Income Level	Pearson Correlation	1					
Knowledge of Health and Life Insurance	Pearson Correlation	.427**	1				
Income Protection	Pearson Correlation	.372**	.235**	1			
Risk Attitude	Pearson Correlation	.398**	.516**	.503**	1		
Social Influence	Pearson Correlation	.194**	.293**	-.035	.153*	1	
Demand on Health and Life Insurance	Pearson Correlation	.458**	.475**	.517**	.601**	.124	1

\*\* Correlation is significant at the 0.01 level (2-tailed).

This analysis is use to measure the strength and the relationship between two variables. Result from Table 4.17 has shown strength and the relationship between a single dependent variable and every single independent variable at a 1% significance level. Demand on health and life insurance appears to be significant and positively correlated with five independent variable which are Income Level

( $r=0.458$ ), Knowledge on Health and Life Insurance ( $r=0.475$ ), Income Protection ( $r=0.517$ ), Risk Attitude ( $r=0.601$ ) and Social Influence ( $r=0.124$ ). Refer to the value that has indicated, Risk attitude achieved the highest positively correlated with demand of health and life insurance. Next, income protection occupied the second highest of positively correlated. Whereas, follow by knowledge of health and life insurance and income protection. Lastly, social influence present the weakest positively relationship to the demand of health and life insurance.



### 4.3.2 Simple Linear Regression

**H<sub>0</sub>: Income Level has no significant relationship on demand of health and life insurance in Malaysia.**

**H<sub>1</sub>: Income Level has significant relationship on demand of health and life insurance in Malaysia.**

**Table 4.18 Model Summary of Equation 1**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.458 <sup>a</sup>	.210	.206	.66392

a. Predictors: (Constant), Income Level

**Table 4.19 ANOVA<sup>b</sup> of Equation 1**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.824	1	27.824	63.123	.000 <sup>a</sup>
	Residual	104.909	238	.441		
	Total	132.733	239			

a. Predictors: (Constant), Income Level

b. Dependent Variable: Demand on Health and Life Insurance

**Table 4.20 Coefficients of Equation 1**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.521	.205		7.406	.000
	Income Level	.465	.058	.458	7.945	.000

a. Dependent Variable: Demand on Health and Life Insurance

According to table 4.18, R-squared is 0.21 this indicates that 21% of the variation in demand on purchase health and life insurance can be explained by income level. In addition, the correlation coefficient between dependent variable (demand on health and life insurance) and independent variable ( income level) is 0.458.

From the table 4.19, the simple regression model ( $F=63.123$ ) which define that there is significant between demand on health and life insurance and income level with p-value ( $0.000 < 0.01$ ).

As shown in Table 4.20, income level is positive related to the demand on health and life insurance. Positive value show that an increase in income level this will lead to demand on health and life insurance increase. The regression coefficient for income level is 0.465, this indicates that demand on health and life insurance will increase by 0.465 if income level increases by RM1, while holding other variable constant.

Based on table 4.20, p value (0.000) of income level is less than 0.01, this can explained there is significant positive relationship to demand on health and life insurance. Therefore,  $H_0$  is rejected.

In conclusion, income level has significant positively relationship to demand on health and life insurance.

**H<sub>0</sub>: Knowledge on Health and Life Insurance has no significant relationship on demand of health and life insurance in Malaysia.**

**H<sub>1</sub>: Knowledge on Health and Life Insurance has significant relationship on demand of health and life insurance in Malaysia.**

**Table 4.21 Model Summary of Equation 2**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.475 <sup>a</sup>	.225	.222	.65731

a. Predictors: (Constant), Knowledge of Health and Life Insurance

**Table 4.22 ANOVA<sup>b</sup> of Equation 2**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29.904	1	29.904	69.214	.000 <sup>a</sup>
	Residual	102.829	238	.432		
	Total	132.733	239			

a. Predictors: (Constant), Knowledge of Health and Life Insurance

b. Dependent Variable: Demand on Health and Life Insurance

**Table 4.23 Coefficients<sup>a</sup> of Equation 2**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.527	.196		7.799	.000
	Knowledge of Health and Life Insurance	.471	.057	.475	8.320	.000

a. Dependent Variable: Demand on Health and Life Insurance

According to table 4.21, tR-squared is 0.225 this indicates that 22.5% of the variation in demand on purchase health and life insurance can be explained by knowledge of health and life insurance. In addition, the correlation coefficient between dependent variable (demand on health and life insurance) and independent variable (knowledge of health and life insurance) is 0.475.

From the table 4.22, the simple regression model (F=69.214) which define that there is significant between demand on health and life insurance and knowledge of health and life insurance with p-value(0.000)<0.01.

As shown in Table 4.23, knowledge of Health and Life Insurance is positive related to the demand on health and life insurance. Positive value show that an increase in knowledge of health and life insurance this will lead to demand on health and life insurance increase. The regression coefficient for knowledge of health and life insurance is 0.471, this indicates that demand on health and life insurance will increase by 0.471 if knowledge of health and life insurance increases by 1 unit, while holding other variable constant.

Based on table 4.23, p value (0.000) of knowledge of health and life insurance is less than 0.01, this can explained there is significant positive relationship to demand on health and life insurance. Therefore,  $H_0$  is rejected.

In conclusion, knowledge of health and life insurance has significant positively relationship to demand on health and life insurance.

**H<sub>0</sub>: Income Protection has no significant relationship on demand of health and life insurance in Malaysia.**

**H<sub>1</sub>: Income Protection has significant relationship on demand of health and life insurance in Malaysia.**

**Table 4.24 Model Summary of Equation 3**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.517 <sup>a</sup>	.267	.264	.63929

a. Predictors: (Constant), Income Protection

**Table 4.25 ANOVA<sup>b</sup> of Equation 3**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	35.465	1	35.465	86.776	.000 <sup>a</sup>
	Residual	97.269	238	.409		
	Total	132.733	239			

a. Predictors: (Constant), Income Protection

b. Dependent Variable: DVMEAN

**Table 4.26 Coefficients<sup>a</sup> of Equation 3**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.528	.175		8.708	.000
	Income Protection	.477	.051	.517	9.315	.000

a. Dependent Variable: Demand on Health and Life Insurance

According to table 4.24, the coefficient of determination (R-squared) is 0.267. It indicates 26.7% of the variation in demand on purchase health and life insurance can be explained by income protection. In addition, the correlation coefficient between dependent variable (demand on health and life insurance) and independent variable (income protection) is 0.517.

From the table 4.25, the simple regression model ( $F=86.776$ ) which define that there is significant between demand on health and life insurance and income protection with p-value  $(0.000)<0.01$ .

As shown in Table 4.26, income protection is positive related to the demand on health and life insurance. Positive value show that an increase in income protection this will lead to demand on health and life insurance increase. The regression coefficient for income protection is 0.477, this indicates that demand on health and life insurance will increase by 0.477 if income protection increases by 1 unit, while holding other variable constant.



Based on table 4.26, p value (0.000) of income protection is less than 0.01, this can explained there is significant positive relationship to demand on health and life insurance. Therefore,  $H_0$  is rejected.

In conclusion, income protection has significant positively relationship to demand on health and life insurance.

**H<sub>0</sub>: Risk Attitude has no significant relationship on demand of health and life insurance in Malaysia.**

**H<sub>1</sub>: Risk Attitude has significant relationship on demand of health and life insurance in Malaysia.**

**Table 4.27 Model Summary of Equation 4**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.601 <sup>a</sup>	.361	.359	.59687

a. Predictors: (Constant), Risk Attitude

**Table 4.28 ANOVA<sup>b</sup> of Equation 4**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	47.945	1	47.945	134.583	.000 <sup>a</sup>
	Residual	84.788	238	.356		
	Total	132.733	239			

a. Predictors: (Constant), Risk Attitude

b. Dependent Variable: Demand on Health and Life Insurance

**Table 4.29 Coefficients<sup>a</sup> of Equation 4**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.937	.192		4.882	.000
	Risk Attitude	.646	.056	.601	11.601	.000

a. Dependent Variable: Demand Health and Life Insurance

According to table 4.27, the coefficient of determination (R-squared) is 0.361. It indicated 36.1% of the variation of demand on purchase health and life insurance can be explained by risk attitude. In addition, the correlation coefficient between dependent variable (demand on health and life insurance) and independent variable (risk attitude) is 0.601.

From the table 4.28, the simple regression model (F=134.583) which define that there is significant between demand on health and life insurance and risk attitude with p-value (0.000)<0.01.

As shown in Table 4.29, risk attitude is positive related to the demand on health and life insurance. Positive value show that an increase in risk attitude this will lead to demand on health and life insurance increase. The regression coefficient for risk attitude is 0.646, this indicates that demand on health and life insurance will increase by 0.646 if risk attitude increases by 1 unit, while holding other variable constant.

Based on table 4.29, p value (0.000)of risk attitude is less than 0.01, this can explained there is significant positive relationship to demand on health and life insurance. Therefore, H<sub>0</sub> is rejected.

In conclusion, risk attitude has significant positively relationship to demand on health and life insurance.

**H<sub>0</sub>: Social Influence has no significant relationship on demand of health and life insurance in Malaysia.**

**H<sub>1</sub>: Social Influence has significant relationship on demand of health and life insurance in Malaysia.**

**Table 4.30 Model Summary of Equation 5**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.124 <sup>a</sup>	.015	.011	.74104

a. Predictors: (Constant), Social Influence

**Table 4.31 ANOVA<sup>b</sup> of Equation 5**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.039	1	2.039	3.713	.055 <sup>a</sup>
	Residual	130.694	238	.549		
	Total	132.733	239			

a. Predictors: (Constant), Social Influence

b. Dependent Variable: Demand on Health and Life Insurance

**Table 4.32 Coefficients<sup>a</sup> of Equation 5**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.778	.182		15.252	.000
	Social Influence	.107	.055	.124	1.927	.055

a. Dependent Variable: Demand on Health and Life Insurance

According to table 4.30, the coefficient of determination (R-squared) is 0.015. It indicates 1.5% of the variation of demand on purchase health and life insurance can be explained by social influence. In addition, the correlation coefficient between dependent variable (demand on health and life insurance) and independent variable (social influence) is 0.124.

From the table 4.31, the simple regression model ( $F=3.713$ ) which define that there is insignificant between demand on health and life insurance and social influence with p-value ( $0.055$ ) $>0.01$ .

As shown in Table 4.32, social influence is positive related to the demand on health and life insurance. Positive value show that an increase in social influence this will lead to demand on health and life insurance increase. The regression coefficient for social influence is 0.107, this indicates that demand on health and life insurance will increase by 0.107 if social influence increases by 1 unit, while holding other variable constant.

Based on table 4.32, p value (0.055) of social influence is more than 0.01; this can explained there is insignificant positive relationship to demand on health and life insurance. Therefore,  $H_0$  is accepted.

In conclusion, social influence has insignificant positively relationship to demand on health and life insurance.

### **4.3.2 Multiple Linear Regressions**

Multiple regression analysis was conducted to examine the relationship between dependent variable, which is demand of health and life insurance and five of the independent variable including income level, knowledge of health and life insurance, income protection, risk attitude and social influence.

#### **Equation**

Demand of Health and Life Insurance = 0.02 + 0.161 Income Level + 0.183 Knowledge of Health and Life Insurance + 0.237 Income Protection + 0.337 Risk Attitude + 0.000 Social Influence

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.020	.234		.084	.933
	Income Level	.161	.056	.159	2.863	.005
	Knowledge of Health and Life Insurance	.183	.058	.185	3.138	.002
	Income Protection	.237	.052	.257	4.524	.000
	Risk Attitude	.337	.067	.313	5.034	.000
	Social Influence	.000	.043	.000	-.003	.997

- R = 0.694
- R Square = 0.481
- Adjusted R Square = 0.470
- Std. Error of the Estimate = 0.54240

After running some test, a summary model has been produced to give a brief idea on how the independent variables and dependent variable are related. Table shows that the coefficient of correlation (R) is equal to 0.694, which means positive relationship could be found between both dependent and independent variables. It also indicates that there are 48.1 percent of variance in demand of health and life insurance can be explain by all five independent variables, including income level, knowledge of health and life insurance, income protection, risk attitude and social influence.

The Table also shows that not all of the independent variables have a significant relationship with demand on health and life insurance. For the independent variable (social influence) is insignificant to affected the dependent variable (demand on health and life insurance), where its p-value is 0.997 greater than 0.01, given 99% confidence level.



Besides that, the tables show that while holding other variables and factors constant, the regression coefficient of 0.161 for income level shows that when there is a change in income level, it will cause a marginal change of 0.161 in demand of health and life insurance.

Following the same principal above, when the other variables and factors are fixed, regression coefficient for knowledge of health and life insurance is 0.183 shows that when there is a change in knowledge of health and life insurance, it will cause marginal change of 0.183 in demand of health and life insurance.

While income protection has regression coefficient of 0.237, explains that when there is a change in income protection, a marginal change of 0.237 in demand of health and life insurance occurs.

Besides that, the regression coefficient of 0.337 for risk attitude shows that when there is change in risk attitude, it will cause a marginal change of 0.337 in demand of health and life insurance.

**Anova Test of Multiple Linear Regression**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	63.891	5	12.778	43.434	.000 <sup>a</sup>
	Residual	68.842	234	.294		
	Total	132.733	239			

a. Predictors: (Constant), SocialMEAN, ProtectionMEAN, KnowledgeMEAN, IncomeMEAN, RAttitudeMEAN

b. Dependent Variable: DVMEAN

To examine this problem, if the model constructed (show in equation) is statistically sound, ANOVA test was performed. According to result shown in table, F-value is 43.434 and p value (0.000) which significant at 1 percent. This

result show that the model constructed as equation 1 is significant and statistically sound.

This model is able to fulfill and support every hypothesis in the previous chapter. It is shown in table that all independent have impact on demand of health and life insurance.

## **4.4 Conclusion**

Overall, this chapter is running test which include analyze and interpret the collected data. There have interpretation on Descriptive Analysis, Scale Measurement and Inferential were implemented. While, there are 5 independents variables executed and one of the variables founded to be insignificant. Therefore, in the following chapter will discuss about major findings, managerial implications, recommendations for future researcher and also the limitation of this study.

## CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS

### 5.0 Introduction

This chapter is discussing five major areas which are summary of statistical analyses, major findings, implication, limitation and recommendations for future research. Moreover, this chapter also provide conclusion for the entire research project and enable policy makers and future researcher to understand more clear in the research project to allow them for future research on determinant of demand for health and life insurances.

### 5.1 Summary of Statistical Analyses

Demographic	Most of the respondent	Percent (%)
Age	25 – 35 years old	32.1
Area	Urban	55.4
Education level	Secondary school	38.3
Income level	RM2001 – RM4000	42.5
No. of policy hold	1	50.0
Annual premium	RM1001 – RM2000	37.5

Table 5.1

Referring on table 5.1, majority of the respondents are male and most of the respondents are from age group of 25 to 35 years old. Besides that, more half of the respondents are from urban area. Moreover, the income level between RM2,001 to RM4000 is the majority in this paper and most of their educational level is at Secondary School.

On the other hand, for the general information of the respondents, majority of them had purchase insurance and half of the respondents are hold only 1 insurance policy. Most of the respondents are paid annual premium between RM1,001 to RM2,000 and majority are holding medical card and life insurance.

For the construction of income level, the statement of “I will buy health and life insurance regardless of how much income I earn” produced highest mean where the statement “I will place portion of my monthly income as health and life insurance premium” produced lowest mean.

The statement of “I prefer to have a professional advice about insurance products before purchase health and life insurance” produced highest mean for construct of knowledge, however the statement of “I am very comfortable to give advice to friends and family members on the insurance product that will suit their needs and is worth buying” produced the lowest mean.

Besides that, for construct of income protection, the statement of “I will purchase insurance to avoid out of pocket health care expenditure” produced highest mean and the lowest mean is the statement of “I have a mortgage on hand and I purchase health and life insurance to paid off in the event after I death”.

Furthermore, the highest mean produced from risk attitude statement is “Health and Life Insurance provide a feeling of financial safety” but the statement of “My occupation will influence my demand on health and life insurance” occupied the lowest mean.

For the last framework which is social influence, the statement of “The decision on purchasing health and life insurance is influence by my family, friends and et

al” produce highest mean however the lowest mean produced by the statement of “I will purchase health and life insurance when my friends purchase”.

The result indicated, overall all the variables tested are reliable. Demand of health and life insurance appears to be significant and positively correlated with Income Level, Knowledge of Health and Life Insurance, Income Protection and Risk Attitude. However the result shows social influence is insignificant relationship with demand of health and life insurance.

## **5.2 Discussions of Major Findings**

According to chapter 2 literature review, previous researcher founded income level, knowledge of health and life insurance, income protection, risk attitude and social influence is positively related with demand on health and life insurance.

**H<sub>1</sub>: Income level has positively related to demand on health and life insurance in Malaysia.**

Firstly, the hypothesis shows that the Income level is positive and significantly affects the demand on health and life insurance. The multiple linear regression result indicated that p value is 0.005 which lesser than significant level (0.01) so H<sub>1</sub> is supported. Hence, it can be concluded that the finding in the literature review is consistent with the result of this research. Based on the previous researcher, Burnett and Palmer (1984) they found out that the income level is directly proportional with the demand of health and life insurance, this means that

if the income level of the health and life insurance holder is increasing, will lead to the holder's desire to increase the demand of the health and life insurance.

**H<sub>2</sub>: Knowledge on health and life insurance has positively related to demand on health and life insurance in Malaysia.**

Next, the hypothesis proven that the knowledge on health and life insurance will directly influenced the demand on health and life insurance positively, the multiple linear regression with the p-value is 0.002 smaller than the alpha level(0.01) . Thus, H<sub>2</sub> is accepted. This is consistent with the previous study as the researcher discovered that most people who do not purchased the health and life insurance is because they do not understand the important of having the insurance.

**H<sub>3</sub>: Income protection has positively related to demand on health and life insurance in Malaysia.**

Third, the hypothesis of this study is income protection is positively affected the increase of demand on health and life insurance proven by the p-value is 0.000 which smaller than alpha level (0.01). So, H<sub>3</sub> is supported. The hypothesis that showed above is proven by the researcher; Lewis (1989), who defined that life and health insurance holder will increase the demand for health and life insurance if he or she intended to leave a huge amount of money to his family if something happened unfortunately. If his family member is increasing then of course more money is required and of course he will demand for more health and life insurance as an income protection for them if in future something bad happened and as well anyone of us can't predict our own life time and that's why health and life insurance is much needed.

**H<sub>4</sub>: Risk attitude has positively related to demand on health and life insurance in Malaysia.**

In addition to, the hypothesis of this study is risk attitude is positively affect demand on health and life insurance, and the p-value is 0.000 which smaller than the alpha level (0.01) and hence, H<sub>4</sub> is supported. The result is match with the previous researcher finding. The researcher of Heo, Grable and Chatterhee (2013) stated that risk averse buyers demand for more health and life insurance compare to others. This because of risk adverse decision maker always plan what is the risk that may cause their income or losing their wealth due to some unexpected events such as illness, hospitalization and more. As such, they buy a lot health and life insurance in order to minimize the risk that had been expected.

**H<sub>5</sub>: Social influence has insignificant related to demand on health and life insurance in Malaysia**

Last but not least, the hypothesis of this study is social influence is insignificant to affect demand on health and life insurance, and the p-value is 0.997 which larger than alpha level (0.01) and hence H<sub>5</sub> is not supported. The result that shown is inconsistent with the previous research that had been done by Kucinkiene and Moullec (2013), whose research mentioned that, social had greatly influence the demand of health and life insurance. The research found out, everyone started to purchase health and life insurance when peers, neighbors, relatives and family started to buy. Researcher believed that this phenomenon happened because when the people around started to buy insurance it will create a feared or belief to someone that bad things will happened and in order to have the protection please follow their footstep to at least minimized the risk and hence the demand of health and life insurance increase.

OECD guidelines (2013) stated that, it is very difficult to have the survey that is aligned to the research because most of the time interviewers struggle why such information is needed and how it will be used? Although explanation and the objective of this survey had been told to the respondents but still they are still struggle to give us the answer and hence causing them to give us their view is based on their recently-experienced affective rather than their normal affective state of view. The other reasons of inconsistent between previous study is due to the cultural different. In this study, the finding showed that Malaysian is more independent to make decision in the demand of health and life insurance. They purchased it based on self-understanding and need of the health and life insurance instead of being influence by others. Researcher Cai, Janvry & Sadoulet (2011) mentioned, individual purchased health and life insurance is based on their needs but not because of others influences.

### **5.3 Implication of the study**

According to this research, founded there are some factors that affect the demand for health and life insurance. The factor that influences the most of Malaysian demand for health and life insurance is risk attitude followed by income protection, knowledge and income level. However, social influence factor is less important to attract Malaysian to purchase health and life insurance.



### 5.2.1 Managerial Implications

This research not only use to test on demand for health and life insurance in Malaysia, but also use for policy maker to boost up their sale by assessing the latent of a new market and geographical area. Based on the result, risk attitude have the highest impact on demand for life and health insurance. Therefore, this study suggested bank and insurance companies concern more on high risk occupation and area. According to the researcher of Heo, E.Grable and Chatterhee (2013), risk adverse decision maker will buys more on health insurance to minimize their risk of losing their wealth due to some unexpected affairs occurred. They main objective is want to avoid paying off all their wealth on medical fees. Then, the bank and insurance companies can start to do research on which specific areas or occupations have the high risk on their health and life.

Based on previous researchers, Lewis (1989) and Berheim (1991), found that the present value of consumption of the beneficiaries increases, the demand of life insurance increases as well because the policy holders know the uncertain life time and have the higher bequest motive. It is essential for banks and insurance companies to keep track on the interest of policy holders to better understand their beneficiaries circumstances whether the consumption is increase or not, so that the banks and insurance companies able to approach their policy holders to demand more life insurance.

Moreover, policy maker can offer different package for different income level. Based on this survey, quite some of the people are wish to buy a health and life insurance but they tend to have financial stress on seek an amount of money to purchase a insurance. Therefore, different package according to income level enable everyone to have the purchasing power to buy the insurance. This statement also supported by the researcher Pliska and Ye (2007) which mentioned that demand of purchasing life insurance will significantly affected on how wealthy are the wage earned.

Based on the result, the insignificant in social influence showed where Malaysian demand for health and life insurance are less influence by their families, friends, insurance agents as well as advertisement. It is might because of weak in financial education. Therefore, it is suggested that the banks and insurance companies to provide financial education to a group of households in a rural area selected for their strong relationship links with others, farming skills and leadership roles and depending on social networks to expand its effect on more farmers through social learning which can be an effective way to improve in insurance take-up (Cai, Janvry & Sadoulet, 2011).

## **5.4 Limitations of the Study**

In the progress of completing this research, a lot of limitations have been identified. The first problem that faced during the research is due to limited budget. The survey forms were disseminated to respondents in Malaysia through face-to-face. However, it was only could distribute the forms that were capable to reach. So, some states might neglect due to too far to go. As a result, there might be unequal amount of survey forms distributed in different states.

As the questionnaire was writing in the English language, some people like older people or those poor in English language might not be really understand those questions asking about.

Next, this research only applicable in Malaysia. However, it only can become a reference for a reader or researcher from difference country and it is capable to be use for local scholar or policy maker. This due to the research is based on the Malaysian perception and it affected by Malaysia culture.

Other than that, the result acquired from the respondents might not be accurate from obtaining the precise information. This is because of the respondents' emotional status and their time willing to contribute to answer those questions may tend to give their answer in certain directions. In addition, the respondent may rush for time and simply answers for the question.

According to Krejcie & Morgan (1970) stated for population more than 1000000, 384 sets of questionnaires is needed to increase the accuracy and reliability. Besides, more precise results obtained and minimize probability of error. However, in this research was taking only 240 sample size which would be inferior as compared to the sample size as suggested.

Lastly, this study was conducted by examining five independent variables which included income level, knowledge of health and life insurance, income protection, risk attitude and social influence. The data indicated that 48.1 percent of variance in demand of health and life insurance were explained by all five independent variables. Hence, another 51.9 percent could be explained by other extra independent variables.

## **5.5 Recommendations for Future Research**

First and foremost, through this research, there are some recommendations for future researcher. The budget of the research was in finite and time constraint as well as there is impossible to go all the states in Malaysia. Which this research only able to conduct in particular states throughout Malaysia. Future studies can actually execute the research throughout Malaysia in order to get a more accuracy result.

Besides, only 240 samples sizes been conducted in this research. Therefore, the study can be carrying more samples in order to get more reliable and accurate result. In addition, suggested future researcher may distribute the questionnaire by using online and telephone survey, therefore, if sample sizes is big through these method able to make the research liable.

In the next place, it is recommended to have multi-language instead of one version which is English. This due to, it is easier for interview to carry out interview with different races.

Last but not the least, future researcher can take other variables into consideration which may influence the demand of health and life insurance. Medical cost, Insurance agent's service, Trust-worthy of the insurance company as a suggestion for future researcher to consider on this variable that may influence the purchasing decision as well as can better understand on this topic.

## **5.6 Conclusion**

The result of this research indicate that risk attitude, income protection, income level as well as knowledge are four important variables correlative with the demand for health and life insurance in Malaysia. However, the variable social influence fails to show the expected positive sign and need for future research to verify the connection between social influence and the demand for health and life insurance. In addition, there are also limitations in this study and hope future research to overcome the limitation which can base on suggestions or other ways.

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**APPENDIX I Questionnaires****SECTION A: DEMOGRAPHIC PROFILE**

Please tick (√) the appropriate answer or fill in the details in the box provided.

1. Gender:

(        ) Male

(        ) Female

2. Age:

(        ) less than 25 years

(        ) 25 – 35 years

(        ) 36 – 50 years

(        ) 50 and above

3. Geographical Area:

(        ) Urban Area

(        ) Rural Area

4. Monthly Income Level:

(        ) Less than RM2,000

(        ) RM2,001- RM4,000

(        ) RM 4,001- RM6,000

(        ) RM6,001- RM8,000

(        ) Above RM8,001

5. What is your highest educational level?

(        ) Primary

(        ) Secondary

(        ) Diploma / College

(        ) Undergraduate

(        ) Postgraduate

(        ) Professional Qualification (Accountant, Doctor, Pilot etc)

**SECTION B: GENERAL INFORMATION**

1. Which Insurance Agency do you prefer?

- Allianz
- Prudential
- Great Eastern
- ING
- AIA
- Manulife
- Zurich
- Kurnia
- UniAsia

Others: \_\_\_\_\_

2. How many health and life insurance policies hold?

- 0
- 1
- 2
- 3
- more than 3

3. How much is your annual premium?

- RM0-RM1000
- RM1001-RM2000
- RM2001-RM3000
- RM3001-RM4000
- RM4001 and above

4. Please ( ✓ ) on the types of Insurance holding.

( ) Medical Card

( ) Saving/ Annuity

( ) Critical Illness

( ) Life Insurance

( ) Education Insurance

**SECTION C:**

Please tick (√) the appropriate answer or fill in the details in the column provided.

Please indicate your degree of agreement on the following statements by circling the numbers given ranging from:

Strongly Disagree=1, Disagree=2, Neutral=3, Agree=4, Strongly Agree=5

**I. Respondent's Income Level on Demand of Health and Life Insurance**

	SA	A	N	D	SD
1. I will place portion of my monthly income as health and life insurance premium.	5	4	3	2	1
2. Once income increases I will demand more health and life insurance.	5	4	3	2	1
3. I will buy health and life insurance regardless of how much income I earn.	5	4	3	2	1
4. My primary commitment is on health and life insurance.	5	4	3	2	1



**II. Respondent's Knowledge on Demand of Health and Life Insurance**

	SA	A	N	D	SD
1. Knowledge of insurance protection is one of the factors that influence me on health and life insurance demand.	5	4	3	2	1
2. I am very confident that I have enough insurance knowledge which incentives me to purchase on health and life insurance.	5	4	3	2	1
3. I am very comfortable to give advice to friends and family members on the insurance product that will suit their needs and is worth buying.	5	4	3	2	1
4. I prefer to have a professional advice about insurance products before purchase health and life insurance.	5	4	3	2	1

**III. Respondent's Income Protection on Demand of Health and Life Insurance**

	SA	A	N	D	SD
1. I feel that guaranteed death benefits are the critical design element.	5	4	3	2	1
2. I am a bread winner in family.	5	4	3	2	1
3. I will purchase insurance to avoid out of pocket health care expenditure.	5	4	3	2	1
4. I have a mortgage on hand and I purchase health and life insurance to paid off in the event after I death.	5	4	3	2	1
5. I will buy health and life insurance in order to let my children to continue their education after I death.	5	4	3	2	1

**IV. Risk Attitude Towards Respondent's on Purchasing Decision of Health and Life Insurance**

	SA	A	N	D	SD
1. I am risk averse person.	5	4	3	2	1
2. Health and Life Insurance provide a feeling of financial safety.	5	4	3	2	1
3. Pass sickness experience on me and people around will drive me to purchase on health and life insurance.	5	4	3	2	1
4. Payment guaranteed will build my confidence to purchase health and life insurance.	5	4	3	2	1
5. My occupation will influence my demand on health and life insurance.	5	4	3	2	1

**V. Social Influence Towards Respondent's on Purchasing Decision of Health and Life Insurance**

	SA	A	N	D	SD
1. The decision on purchasing health and life insurance is influence by my family, friends and et al.	5	4	3	2	1
2. I will purchase health and life insurance when my friends purchase.	5	4	3	2	1
3. Health and life insurance demand is cause by word-of-mouth about the benefit.	5	4	3	2	1
4. I buy health and life insurance is due to the recommendation from my friends.	5	4	3	2	1

**VI. Respondents Demand on Health and Life Insurance**

	SA	A	N	D	SD
1. I will demand on health and life insurance.	5	4	3	2	1
2. I am satisfied with the number of policies I hold.	5	4	3	2	1
3. My current insurance coverage is more than enough to cover my demand.	5	4	3	2	1
4. I realize health and life insurance is important.	5	4	3	2	1