DETERMINANTS OF FINANCIAL SATISFACTION

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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.

(4) The word count of this research report is 18350.

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Preface

Financial satisfaction, also known as financial well-being, has gained attention of the global financial educators, coaches, practitioners and policy makers with the effort to improve people financial status, in order to achieve a better state of financial well-being. A good state of financial satisfaction can benefit health, longevity, citizenship, and social relationships in long term. It is important to outlining the factors that lead people to individual's financial well-being at a specific moment,thus the information can create a visual guide for them to achieve the goals.Research on financial satisfaction in global is ongoing to uncover the factors behind what contributes to the financial satisfaction.

ABSTRACT

The purpose of doing this research is to determine the factors that affect the financial satisfaction in Malaysia and Singapore. The four independent variables including in this study are household income level, age, savings, and employment status. The data used in this study is secondary data and they are retrieved from World Value Survey (WVS). The total number of respondents for both Malaysia and Singapore are 1299 and 1933, respectively. Three binary response regression models that used in this study are linear probability model (LPM), logistic model (Logit) and probit model (Probit). The results obtained by these models indicate that household income level, age and savings are positively associated with financial satisfaction. However, for employment status, it has a positiverelationship with financial satisfaction in Malaysia and a negative relationship in Singapore. Besides, the limitations and recommendations for the future research have been discussed in this study. In the end of this research, there are few policy implications have been suggested to the policy makers and government based on the findings obtained.

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

Currently, financial satisfaction has become an essential global issue, this can be evidenced by growing body of population survey data and research organizations that allow researchers to look into national financial satisfaction level in particular or across countries and across periods. For example, David Hayes, who under Personal Finance Research Centre has collaborated with International Longevity Centre-UK and ESRC Secondary Data Analysis Initiative to conduct an analysis on financial well-being of elder individuals between countries, by using 5 waves from World Value Survey (1981-2008). They ranked Switzerland's elderly were most financially satisfied, followed by Norway, Sweden, Finland and Canada (Hayes, 2014). Standish and Witters (2014) also conducted a survey across 135 countries in year 2013, using Gallup-Healthways Global Well-being Index. They ranked Sweden is the highest, followed by Austria, Denmark, Netherlands, and Germany. When come to 2014, using the Gallup-Healthways Global Well-being Index as well, Norway reported the highest financial satisfaction, closely followed by Sweden, Switzerland, Netherlands, and Austria (Chappell, 2015).

All the information above highlighted that financial satisfaction across countries have showed notable differences in different periods. Peoples would question, what are the conditional factors benefit these countries to associate with greater financial satisfaction across the periods? Is it due to increase in income level, decrease in crime level, or increase in employment?For instance, if income level is the factor that positively related to Switzerland citizen's financial satisfaction, does thispositive relationship can be applied on another country as well?

In this study, Malaysians and Singaporeans would be tested to identify the significant factors that influence their level of financial satisfaction. One of the reasons taking Malaysia and Singapore as target groups is because showing a huge differences in economic, even both countries are members of ASEAN countries. Singapore was grouped as one of the high income countries, but Gallup survey 2014 found that Singaporean's financial satisfaction was ranked around 50th out of 145 countries, that was relatively lower than Malaysia's 34th (States Times Review, 2015). This seen like income is not the only factor that could influences individual's satisfaction, but others else as well.

In fact, improving trends in financial satisfaction are seen in many countries, but declining in financial satisfaction is evident in a few. Therefore, rising in researches of financial satisfaction provide the advantage of allow the world to get know what the factors that increase financial well-being, and policy agencies can look into the predictors, such as social support and basic needs that need to be fulfilled. The efforts to improve nation financial satisfaction cannot be overlook, as high financial satisfaction can benefits health, longevity, citizenship, and social relationships.

1.1 Problem Statement

Singapore and Malaysia both are Asia countries with similar background in culture, religion, language and foods, but show huge differences in economic development and growth. Singapore is a developed country with high income economies, while Malaysia is a developing country with upper middle income economies. International Labor Organization (2014) has published the average monthly income of 19 countries from Asia and Pacific, and the adjusted exchange rates have been used to reflect variations in the cost of living from one country to another. In 2013, Singapore showed an average monthly income of USD3,694 per month, but Malaysia showed an average monthly income of USD 651 per month,

which is far behind than Singapore. Besides, average salary for fresh graduates in Singapore is up to SGD3, 500, but only RM2, 500 in Malaysia (Rosly, 2014).

Even though there is a significant difference in monthly income, both countries experienced a rose in their income level. 2014 Household Income and Basic Amenities Survey (HIS&BA) has announced that Malaysia median household's monthly income with a total increase in 11.7%, which is rose from RM3,626 in 2012 to RM4,585 in 2014 (Department of Statistics Malaysia, Official Portal, 2015). Whereas, Singapore median household's monthly income has increased by 9.6% from RM7,566 in year 2012 to RM8,292 in year 2014 (Lim, 2016). However, despite an increase in their monthly income, cost of living has to take into consideration, as income will be offset by the high price of items or high living cost. In year 2014, FMT news has compared cost disparity between Malaysia and Singapore in terms of foods, transportation, utility fee, credit card, interest rate and other costs. Cost of groceries, foods in Malaysia is relatively higher than Singapore, such as McDonald's Big Breakfast of RM 9.15 in Malaysia is higher compared to Singapore which is SGD 5.25 if without taking currency rate into account. When come to cost of housing, Singapore is requires much higher purchasing price and rental fees than Malaysia. Overall cost of living in both countries is high but in different aspects.

Other than income level, debt such as housing, vehicle, personal and business loan is one of the factors that researchers have to look into because majority of people are indebted. Starts from the young adulthood life stage, young adults already incur student loans once they enter into university and college. Besides, credit card debt also a major type of debt pertaining to young adults, because it is one of the ways for them to meet their material aspiration, as their income is not sufficient to sustain their spending. However, without caution in using credit card, it not only will cause young consumers to overspent easily but also will lead them to a worsen situation like declaring bankruptcy (Noordin,Zakaria, Sawal, Ngah&Hussin, 2012). A bankruptcy statistic conducted by the Ministry of Law, showed that total 7,323 bankruptcy orders have been made in Singapore from year 2013 up to year 2016 (Ministry of Law, 2017).

While statistical released by Insolvency department (MdI) indicated total bankruptcy cases is 253,635 cases in Malaysia, solely on year 2013 (The Star, 2014). The number of bankrupt cases reported in Malaysia is such prodigious, which worries by public and policy agencies.

When come to the case of savings, Malaysia is yet to show a favorable situation. Among Southeast Asian countries, Malaysia reported a highest percentage of citizens retired or expect to retire before age of 60, but Singapore has the least percentage (Nielsen, 2014). This is because many Singaporeans wish to work longer in order to have sufficient money to retain their lifestyle (Aspirantsg, n.d.). Although Malaysians wish to retire before age of 60, but reality do not allow if they do not have sufficient savings or funds to support their expenses after retire, especially for sick personnel. A statistic highlighted that more than three quarter of retirees have less than RM50, 000 in their Employees Provident Funds savings when they are 55 years old. This is because most of the working populations in Malaysia have less than RM5, 000 of income, so they only have small portion of income can be saved after the daily expenditure has been paid off (Aliran, 2013). Therefore, Malaysian is facing the problem, which they do not have adequate savings to retain their lifestyle after retirement, causing them unable to maintain a comfortable standard of living during retirement.

In addition, in year 2014, Malaysia has an unemployment rate of 2% while Singapore unemployment rate was 3% according to World Bank data. This unemployment rate plays an important role as it can be used as an indicator to determine health of a country's economy. A high unemployment rate does not imply a good sign for the country, because high unemployment will lower down productivity and gross domestic product at the same time, which can indirectly cause economy slowdown. Furthermore, employed is the main channel that individuals obtain the income resources. Kok (2016) has stated that in Malaysia, more than 50% of the households do not have any savings and only 20% of them will be able to survive for less than 3 months if they are unemployed. An additional 6% and 7% of Good and Services Tax (GST) imposed by Malaysia and

Singapore governments on consumption respectively, will be another burden as well for unemployed people as they unable to afford extra living expenses.

From the issues above, all evidenced that Singapore has a better condition than Malaysia in term of income level, insolvency number, and savings. As discussed, average salary for fresh graduates in Singapore, SGD3500 is higher than Malaysia, RM2500, as well as average monthly income. Singaporean was showing average monthly income of USD3694 per month, which is much higher than Malaysian of USD651 per month. For both countries that experiencing high cost of living, seem like Singaporean can cope much more better in their cost of living compare with Malaysian, and preserve more saving, all due to the reason of higher earnings. Also, insolvency cases reported in Singapore were lower than Malaysia. People might expect Singaporean should be more financially satisfied, compare to Malaysian. However, much to surprise, ranks of Singaporean's financial satisfaction was lower than Malaysian in Gallup survey 2014. The unemployment rate of Singapore was higher than Malaysia in year 2014, is this reason affect Singaporean financial satisfaction level to go downward? All these questions and the contrary results showed in reality of statistic may attract researcher's attention. Hence, household income level, age, employment status, saving and debt will take into measurement in this study, to look into what makes the different in financial satisfaction level between the countries.

1.2 Objectives

1.2.1 Main Objective

We are going to determine the factors that affect financial satisfaction in Malaysia and Singapore.

1.2.2 Specific Objectives

- To identify the relationship between household income level and financial satisfaction between Malaysian and Singaporean.
- To look into the financial satisfaction level in the change of age between Malaysia and Singapore.
- To determine the effect of savings towards financial satisfaction between Malaysian and Singaporean.
- To explore the difference in financial satisfaction level between employed and unemployed individuals in Malaysia and Singapore.

1.3 Research Questions

- A positive sign can be expect from household income level towards financial satisfaction in Malaysian and Singaporean?
- Will level of financial satisfaction increase or decrease when age increase over the life between Malaysian and Singaporean?
- What is the relationship between savings and financial satisfaction among Malaysian and Singaporean?
- Does employed individual has relatively higher financial satisfaction than unemployed individual between Malaysian and Singaporean?

1.4 Significance of Study

This work aims to give an overview of current economic conditions of Malaysia and Singapore. Previous findings also illustrated great differences between countries in financial satisfaction, so cross-national comparison will be meaningful as it allows exploring the social conditions associated with higher financial satisfaction. Through this research, Malaysian and Singaporean will be able to realize the important of savings and debt management. A number of

directions will be suggested to policy makers in this work that may be workable in improving and enhancing national financial satisfaction.

1.5 Conclusion

In summary, this paper is going to make a comparison between Malaysia and Singapore, to explore the relationship between household income level, age, debt and saving and employment status and financial satisfaction. In the following chapter 2, is going to look at the relationships between independent and dependent variables that have been uncovered by existing literatures. Chapter 3 is going to introduce the methodology used and results found, while chapter 4 will have a comprehensive discussion on the findings. In the last chapter, limitations of this study will be discussed; recommendations for future researches and policy implications will be given.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

Over the years, people are more concern over their quality of life, numerous researches have been documented and examined to have a better understanding on financial satisfaction as it is an important factor in measuring quality of life (Coşkuner, 2016). Large numbers of studies have investigated to examine the financial satisfaction among the countries. Previously, there are some researches carried out in Malaysia, they were trying to identify the elements affect Malaysian's financial satisfaction level, also known as subjective well-being or financial well-being (e.g. Ali, Rahman, &Bakar, 2014 ; Yin-Fah, Masud, Hamid &Paim, 2010 ; Falahati, &Paim, 2011, Sabri, 2011 ; Mokhtar,Husniyah, Sabri, & Abu Talib, 2015). However, there is limited research did in Singapore. Therefore, this study would like to examine the impact of demographic factors (income, age, employment status) and financial practices (saving and debt) specifically toward Malaysian and Singaporean financial satisfaction.

2.1 Review of the Literature

2.1.1 Dependent Variable - Financial Satisfaction

Satisfaction can be said as a fulfillment or achievement of one's expectations and needs, while people sense of satisfaction on financial well-being is a subjective opinion that is heavily influenced by personal attitudes and beliefs. In more simple word, one person may feel very satisfied while another may not, despite both having similar financial

resources, cited by Sabri (2011) from Rutherford and Fox (2010). While based on the definition of previous studies, financial satisfaction has been described as a person's happiness with his or her material (objective) and non-material (subjective) financial condition in general (Joo& Grable, 2004; Plagnol, 2011, Consumer Financial Protection Bureau, 2014). Examples of objective measures given by Porter Thomas and Garman (1993) and Consumer Financial Protection Bureau (2014) included demographic factors, socioeconomic status, assets, consumption goods, savings, credit scores, and debt burden. Family financial management, credit management, retirement, and risk management are some of the measurement for financial satisfaction in subjectively. In recent studies, Xiao and Porto (2016) also defined financial satisfaction as a subjective measure of financial well-being. Ali et.al (2015) explained financial satisfaction as a person's sensitivity toward his or her financial situation.

From the past, financial satisfaction has been draw attention and broadly investigated by researchers, different measurements has been used to identify the factors driven individual's satisfaction level on his or she financial status. Generally, there are two types of methods used to determine financial satisfaction, which are single item scale and multiple items measurement. According to Morgan(1992), an example of single item scale is used by directly asking "how satisfied are you with your financial satisfaction?" (as cited in Coşkuner, 2016; Ho, Ng &Siew, 2013). Similarly, a question asked by Greenly, Greenberg, and Brown (1997), "How comfortable and well-off are you financially?" (as cited in Coşkuner, 2016).

For the case of second type of method, numerous researchers included multiple items or components in their studies to measure an individual's financial satisfaction. For example, Delafrooz and Paim (2013) used demographic characteristics, financial knowledge, financial behavior, and financial stress in analysis. Other than demographic and socioeconomic factors, Yin-Fah, Masud, Hamid and Paim (2010) placed

more variables, such as financial literacy, financial practices, money attitudes, net worth and financial problems into model. Joo and Grable (2004) was included and found that financial stress, financial behaviors, financial solvency, financial knowledge, risk tolerance, income, and education were all significant to explain individual's financial satisfaction.

Why does financial satisfaction such important to an individual, family, corporation and even a nation? Previous studies were confirmed that individuals who experiencing high financial dissatisfaction were suffered for high level of financial stress (Delafrooz&Paim, 2013), since financial well-being is closely related to financial stress (Joo& Garman, 1998). Finding from Delafrooz and Paim (2012) reported financial stress has a negative effect to financial satisfaction in a direct way. A question would be asked, what aspects does financial stress will bring influences to? Kim and Thomas Garman (2003) explained financial stress is one of the personal life stresses that would bring significant impact to personal health, family issues, workplace absenteeism. Financial stress can affect individuals in the way of induce physical and psychological responses. It affects individual's health through physical destruction such as illness (Drentea&Lavrakas, 2000), alcohol and drug problems and reduce psychological well-being such as depression, emotional distress (Pearlin, Menagahn, Lieberman &Mullan, 1981; mindhealthconnect, 2014).

Furthermore, financial stress reduces corporate efficiency and effectiveness by affect individual's psychological responses in areas of organization commitment and job satisfaction. Turner (n.d.) illustrated that remain positive emotions and attitudes can be extremely benefit work environment, in contrast, negative emotions can be likewise harmful and unproductive. Finding from Joo and Thomas Garman (1998) and Mokhtar et al. (2015) also revealed that financial wellness is associated with job productivity, and Joo and Thomas Garman (1998) found that a higher level of financial well-being was associated with less absenteeism. The costs incurred from financial stress to employers included low productivity,

higher health care costs, increase workplace accidents, higher payroll expenses, and administration costs (Financial Fitness Group, n.d.; Consumer Financial Protection Bureau, 2014). Mokhtar et al. (2015) also concluded that financial well-being could directly and indirectly affect individual, team and organization. They have studied public employee's financial satisfaction level in Malaysia and tried to find out its determinants. The reason for them taking Malaysia public sector employees as sample group is because believed public employee's innovativeness, responsiveness, efficiency and friendliness in services to enhance the competitiveness of one's country that can be changed by the level of financial well-being.

Since financial satisfaction is such essential to a nation in the areas of stability, competitiveness, and economic, there have more studies have been carried out across the countries, to know clearly what are the factors significantly influence an individual's satisfaction level, Malaysia is one of the countries. For example, Chong, Sia, Ng, Lim and Ooi (2012) attempted to test on time transfer and financial transfer on financial satisfaction. Time resources transfer covered as communication, interaction, and consultation, emotional support among family members, as well as self-confidence towards family and society. While financial resources transfer covered financial support and assistance among family members. They have proved both resources transfers are exist among older persons in Malaysia, by using principal component analysis with varimax rotation test. They concluded for parents who are highly satisfied in financial status, their children are likely to spend more time resources transfers instead of financial resources transfer with their parents. And this finding directly proved high level of financial satisfaction come along with high level of income. A research also did by Yin-Fah, Masud, Hamid, and Paim (2010) on financial satisfaction of older Malaysian. They have indentified significant differences in monetary attitude, financial literacy and financial problems as well as financial practices on financial satisfaction, by looking at gender differences.

In addition, Sabri (2011) tested for personal and family background (e.g. gender, ethnicity, and birth area), financial knowledge, academic ability (GPA, class rank), and childhood consumer experiences (e.g. saving) on perceived financial well-being. They further explored whether the effect of financial knowledge towards perceived financial well-being has been influenced by financial socialization agents (i.e. parents, peers, media and religion). Their research was carried out among public and private college students in Malaysia by using structural equation modeling (SEM). Another research that did in Malaysia is from Ali, Rahman, and Bakar (2013). They tried to identify the level of literacy among Malaysian public, by including investment know-how, basic money management, financial planning, attitude to money and financial activities into analysis. They assumed that level of individual's financial satisfaction can predict by the level of financial literacy.

Besides, Delafrooz and Paim (2013) demonstrated all the possible direct and indirect effect of financial problem, financial stress, and financial behaviors on financial satisfaction. Their sample groups were comprised Malaysia employees from public and private sectors. They proved that financial problem of Malaysia employees have both direct and indirect effect to financial satisfaction, but indirect effect were negative. However, financial stress, and financial behaviors only showed direct relationship with their financial satisfaction.

In conclusion, concern on the financial satisfaction across the world has been became a current and universal issue. There are some researches done in Malaysia to examine the determinants of financial satisfaction, yet seen to be rarely done in Singapore. Hence, this finding is going to explore the effect of demographic and socioeconomic factors (income level, employment status, age, saving, and debt) on person's satisfaction level, particularly to Malaysian and Singaporean.

2.1.2 Independent Variable - Household Income level

Household Income is source of money that came from the entire family member which involved into a trade or exchange of product or services or gain through investment. For an individual in household, income is mainly come from salary or wages from job or gains made from investing. Through provide labour force to employer, individual can earn fixed or varies money from it. Household also can increase their return from investing by making a profit on investment in stocks, bonds, mutual fund, real estate, or other investment tools. With not absolute amount stated in the questionnaire, we used own perceptive of where your household income group belonged as the determinant of financial satisfaction.

For our study, we classified income level into ten scales which range from one to ten. Candidates can classify their household on which income group belong on our society. With higher scale on income indicated that the household located at higher income group by including all the relevant income for example, salary, wages, commission, pension and other money receipts. Nonetheless, it is mainly based on own perception on determine which group they are located.

On the other hand, income is to fulfil the needs and desires of individual. By achieving the fulfilment, financial satisfaction tends to increase. Income seems to be significant and positively determinants for financial satisfaction with the absolute amount income provided. It suggests that the financial satisfaction is increasing respectively in the every level of the household's income group which support the idea of tunnel effect (Brown &Gray, 2014). Whereas, tunnel effect is the income level has positive effect to financial satisfaction in the context of economic development. According to Bonke and Browning (2003), individual that categorised in married and in higher income group is reported to have high likelihood on financial satisfaction and it is matched with the previous

expectation. There is because married individuals have higher income than the single individuals. On the other hand, there is a report exerted that individual perceptive of income group is positively associated with financial satisfaction while the satisfaction of income level contributed to higher perceived financial satisfaction (Porter &Thomas Garman, 1992). With matched to the expectation, by using the data obtained from General Social Survey (GSS), the study of DePianto (2010) used the individual's judgement on their family income located in which income group, showed the positive relationship with the financial satisfaction. Moreover, household's income group belonged has a significant positive indirect effect on their financial satisfaction level. It indicates that individuals with higher income level tend to have higher tendency of satisfied on their financial (Joo& Grable, 2004).

In contrast, we also found that the literature showed negative relationship between the income level and financial satisfaction which not meets with the previous expectation. There is negative relationship between the household income and financial satisfaction whereas the income tends to increase with age but decrease after mid life (Plagnol, 2011). According to Clark, Senik and Yamada (2013) with high income on job, the satisfaction on money tend to decreased. The desire of money will be increase as the income level increase. Brown, Durand, Harris and Weterings (2014) pointed out that the individual rely on investment income rather than wage income would have negative impact on financial satisfaction respect to the income.

However, according to Plagnol (2011), the income level is not directly impact to the financial satisfaction and it involved mediation of other psychological processes, because it failed to perform consistent result with the income increased. Whereas, Vera-Toscano, Ateca-Amestoy and Serrano-Del-Rosal (2006) claimed that the household income does not contribute important effect on financial satisfaction as the adequately and stability on assess the income to satisfy their need are much more

important. The study of Yin-Fah, Masud, Hamid and Paim (2010) found that the household income level is not necessary significant for financial satisfaction for older person because their source of income is mainly come from their children. The other reason might be old person tend to stay alone contribute the income is insignificant to the financial satisfaction. Ho, Ng and Siew (2013) claimed that income also known as money is seldom chose it as determinant of financial satisfaction because it is a mean of tools to satisfy individual's need. By making reference from utility theory, individual chase for high level of income, but individual also tend to have highest utility with given financial satisfaction. Thus, the income is neither important nor significance for determine financial satisfaction.

2.1.3 Independent Variable – Age

Age is one of the factors of demographic characteristics and it has been used by many researchers in the previous studies, however the results obtained from the previous studies are differ from each other. Age has defined as how long a person or a thing has existed. Age has been categorized by the Central Intelligence Agency into four main groups which are children (0-14 years), youth (15-24 years), adults (25-64 years), and seniors (65 years and over). For consumers who age are under 35 years, they will demand for high salary because those people who just get their first job will start to decide to buy cars, houses and also luxury products. In contrast to the under-35 group, older consumers will start to switch their priorities to other needs as their health is declining. For instance, for elderly in United States they will spend most of their savings or income on medical care or health care products (Bureau of Labor Statistic, 2000). Therefore, different age groups will have different level of financial satisfaction due to the spending patterns and desires are vary in each age group.

Garrett and James (2013), they found age is significantly negatively associated with financial satisfaction. In contrast, DePianto(2010) indicated age and age squared were significantly and positively to the financial satisfaction, which is a U-shaped relationship between age and financial satisfaction. Besides, a U-shaped relationship also has been determined by Vera-Toscano et al. (2006). Plagnol (2011) highlighted that age is positively influence the individual's financial satisfaction level. The reasons why elders have higher financial satisfaction than other age group is due to elders have greater financial assets and less debt in old age.

However, they are few researchers obtained the same result which are different from other researchers above such as Joo and Grable (2004), Zurlo (2009) , and Delafrooz and Paim (2011) as well as Mokhtar et al. (2015). Those researchers have found that age is insignificantly affected the financial satisfaction because neither direct nor indirect effects can be found from age to financial satisfaction. According to Mokhtar et al. (2015), the reason age does not have effect on financial well-being is due to two reasons. the first reason is there is only 2.1% variance of financial well-being were explained by age and other demographic characteristics while the second reason is only a small sample size of 30 respondents were involved in this research.

2.1.4 Independent Variable - Savings

Porter and Thomas Garman (1993) has pointed out sense of financial well-being do not merely measure with objective attribute, income, but perception of adequacy of that income for achieving financial goals, such as saving for retirement should be taking into investigation. So, what is saving? Saving is all about spending or making consumption on less than one's individual earn, and keeping the money resources for the future. It can be in the ways of putting money in the saving account,

buying financial securities, investing in financial instruments and contributing for retirement fund as well.

Why does savings so important? People will start to do saving and investing in order to meet their financial goal. For example, young adults will tend to save to prepare for their future events such as continuing their education, preparing for a career, starting a family, or buying their first home. Besides, savings allow them to build up a "rainy day" fund for emergencies such as possible job lay off, medical operation, car repairs and so on. Without savings, worries of the source to cope with unexpected events and emergencies may bring negative emotions (Collins &Gjertson, 2015), and hence lower financial satisfaction. In addition, people who save and invest their money through saving accounts, buying financial products and securities, can provide them a chance to make more returns by earning the interests or possible capital gain (Investor Protection Trust, n.d.).

Besides the reason of preparation for near future, savings is important for an individual's survival when he or she was no longer has income, or retirement is only few years away. This is because, people still need income to support consumption after retirement (Lusardi, 2003; Investor Protection Trust, n.d.). Therefore, young workers expect their personal savings and investments to be their most important source of retirement income (Devaney& Su, 1997) to obtain a comfortable and financially secure retirement.

Based on the reasons mention above, savings can be expected to positively influence individual's financial satisfaction. Paper of Seay, Asebedo, Thompson, Stueve, and Russi (2015) and Ali, Rahman and Bakar (2014) found and supported that, savings, emergency funds and retirement fund have a positive impact to financial satisfaction. Besides, Falahati and Paim (2011) have examined the differences on financial well-being from the views between female and male college students. It proved that a major gender differences in satisfaction with financial situation,

which female has a relatively higher level of financial satisfaction than male in term of saving for emergency, but no significant differences between gender in financial satisfaction with the amount of saving.

However, financial satisfaction level on saving might not only merely based on individual itself, but the other parties might influence the perception of that individual on his or her satisfaction level. The finding from Falahati and Paim(2011) also revealed that students are directly influenced by primary socialization agent (family members, siblings and cousins) on their perceive of financial well-being, financial knowledge, and financial skill, and positively influenced by secondary socialization agent (peer group and colleagues) as well. The direct effect of primary socialization agent showing that students could evaluate their financial situation that more likely same as the perceptions of their family since their financial attitude and beliefs have been influenced. High level of financial satisfaction on evaluation of financial matters will be made by students as their parents have a higher financial satisfaction level on that financial situation as well.

However, sadly to say most of individual do not have saving or funds. Few studies have recognized that making saving decisions is a very difficult task. It requires individual to spend substantial time and effort to look for all the information needed, which are included social security, pensions, interest rate, and expected inflation. There still have more variables in the futures need to take into consideration (Lursadi, 2003).

To reach desire level of financial satisfaction, money management behaviors plays an important role for individuals by requiring them to change in behaviors (O'Neill et al, 2000). For instance, for individuals whose like to overcome their financial obstacles, they are likely to replace their problem behaviors such as spending and credit used for healthy financial practices like saving, preserve emergencies funds and investing. Naturally, personal qualities which including discipline, determination,

positive thinking, and knowledge are the essential elements to allow individuals pursue these positive changes in succeed, following with financial planning.

For the side of debt, also known as credit obligation of individual, which included amount of mortgages, home equity loans, and all other consumer loans, can be a main problem for most of the people. The reason behind people would likely want to avoid large amount of debt is due to it may bring a negative effect to one's financial stability, and hence lower down financial satisfaction subsequently. However, economic investment theory proposed people can increase utility through cautious use of debt (Harper, n.d.).This would require a person to control over their spending behaviors as well as credit use when they enter into the stage of maturity. Thus, individuals have to acquire and practice good spending habits and behaviors before they turn mature and enter realm of credit.

Lown and Ju (1992) has done a study in the credit use and financial satisfaction, and found that the subjective attitude toward the credit use is significantly affect individual satisfaction level. Persons are more likely satisfy with their financial state when they have high adaptation to large monthly credit payments. On the other hand, persons who are concern with their credit obligations are more probably have lower financial satisfaction level.

Brown and Gray (2014) has using nationwide panel survey, Household, Income and Labour Dynamics Australia (HILDA) survey to examine the effect of debt (total debt, secured debt and unsecured debt) toward satisfaction level. Secured debt can be refer as housing loan, property loan, while unsecured debt refer as all other debt held by individual, and found that all types of debt, which included total debt, unsecured debt and secured debt are negatively associated with financial satisfaction. It revealed that 1% (92.1 AUD) increase in unsecured debt would required a 0.12% increase in annual household income to maintain

constant level of one's financial satisfaction, while 1% (1053.3 AUD) increase in secured debt, required only 0.065% increase in annual household income. This implied that for individuals increase in debt, especially unsecure debt, will need additional income in order for them to feel financially secure.

In addition, effect of debt and mortgage towards financial satisfaction vary across the four life stages has been investigated by Brown, Durand, Harris, and Weterings (2014) and Plagnol (2011), both showed a consistent result. Individuals who having a mortgage resulted in lower level of financial satisfaction in the last two life stages, indicating individuals are strongly prefer for lesser debt in their later years of lives, this might due to a expectation of income decrease as individuals close in retirement. In contrast with the late stages, having the mortgage in early life stages has no any significant effect on financial satisfaction, which may in view of higher expectation of income in the future and confidence in ability to pay off the debt in the future.

Besides, a research conducted by Vlaev and Elliott (2014) to understand debt to income ratio on two groups, which are young workers, aged from 18 to 29 and families, aged from 25 to 59, with at least one child below 16. Both groups are working full time. Result showed that, debt to income ratio is significant to families, the higher the debt to income ratio, the lower the level of satisfaction on their financial matters. This indicates families wish to increase in their income, but in the condition of debt relative low, if not will result in lower financial satisfaction even with an increase in income. Interestingly, debt to income ratio was not statistically significant to young workers group, might with the reason of more good in cope with high debt level. But, if young workers move into family-life stage, debt acquired become a difficult issue for them.

Seay, Asebedo, Thompson, Stueve, and Russi (2015) stated that individuals who are holding the mortgage are negatively associated with

financial satisfaction, which is accordance to Brown, Durand, Harris, and Weterings (2014). Two-block hierarchical regression was employed by Seay, Asebedo, Thompson, Stueve, and Russi (2015) to show a clear effect between the debt and financial satisfaction with the additional variables into the analysis. In model one, it proved that mortgage holders with difficulty in paying bill, spending more than income and mortgage balances exceeding their house value (underwater), would be resulted in lower financial satisfaction. However, presence of car loan or medical debt was insignificant toward financial satisfaction. While model two proved that, there were no statistically major differences in the level of financial satisfaction of non-mortgage holders and mortgage holders with no underwater, after controlling for financial capability (objective and subjective financial knowledge) and financial beliefs (debt beliefs and risk tolerance). A good point from the finding is model one suggested that, different debts may affect individuals in a different way, and model two suggested direct measures of individuals' debt comfort level would be more beneficial, instead of focusing on types of debt.

In conclusion, basic motives for people to do saving is the accumulation of wealth to ensure future welfare (Gourinchas& Parker, 2001), and debt requires people to manage carefully to avoid any financial burdens and hardships.

2.1.5 Independent Variable - Employment Status

Employment status is one of our independent variable of interest in this study. Individuals were classified based on their employment status by answering the question in questionnaire which relates to their main activities. We classified the individual's employment status into two categories which are employed and unemployed. For the employed category, we have included full time employee, part time employee and self employed individuals. Besides, we include housewife, students, retired

and unemployed individuals in the unemployed category. In this study, we compare the financial satisfaction level differ significantly between individuals who are unemployed and those who are currently employed.

Ahn, García and Jimeno (2007) stated that unemployment will reduce individual's satisfaction financial level. This is due to unemployment give rise to negative emotions on individuals. Unemployed individuals who suffered reduction or loss in earnings will reflect to a lower financial satisfaction level. However, it will also depend on existence of other income source like unemployment benefits.

Individuals who dissatisfied with their financial situation are usually younger, unemployed, lower income, smokers, more often unmarried and intoxicated. Hence, Individuals who unemployed were usually dissatisfied with their financial situation as compared to those who employed and with more financial satisfaction (Rautio et al, 2011).

According to Krause (2010), Unemployment will negatively affect satisfaction with financial situation. Throughout the overall estimation methods, gender and region, unemployment shows a clear negative effects toward financial satisfaction level. It shows that men have stronger effects than women, moreover, in Latin region, the effects are worse than in German region. Krause (2010) also mentioned that the relationship between unemployment and financial satisfaction are stronger than relationship between unemployment and life satisfaction.

Furthermore, Plagnol (2011) has mentioned that individuals who are unemployed tend to have a lower level of financial satisfaction than individuals who are employed or in labour force. By taking other economic variables constant, individuals who unemployed were less satisfied with their financial situation. This is due to their aspiration for income is greater than individuals who are employed and with same level of income. They probably knows that they will have a higher income level

once they get a job and inspiration for income are formed relative to their expected potential income instead of current income.

Besides that, Kifle and Kler (2008) have concluded that individual's financial satisfaction is not only affected by income, other factors such as demographic and socio-economic factors will also significantly influence their level of financial satisfaction. They mentioned that individual who is unemployed and not in the labour force have lower level of financial satisfaction as compared to individual who is employed.

Lower financial satisfaction levels are reported by unemployed individuals as compared to employed individuals. There is evidence to show that unemployed individuals have the idea regards unemployment will lower their satisfaction with their life. As unemployment will impose unused resources in the household, unemployed individuals are willing to have a job which is independent with their current income level (Vera-Toscano et al., 2006).

In addition, Peiro (2006) mentioned that unemployment is significantly linked with life and financial satisfaction. Unemployment will significantly affect the dependent variables which are life and financial satisfaction. In most countries, it reported that unemployment has a negative and also significant effect on life and financial satisfaction.

Moreover, for those who are unemployed such as individuals still in education and concerned with house duties will have a lower financial satisfaction level as compared to individuals who are employed. This is due to individuals who are employed are seeking for their first job (Delaney, Newman & Nolan, 2006).

2.2 Review of Methodology

Joo and Grable (2004) stated that demographic and socioeconomic factors have been reported as most common factors in influence financial satisfaction. Hence, researchers have used various methods to have a clearly understood on association between demographic factors and human sense of well-being.

In year 2004, Joo and Grable have used path analysis, using SPSS for Windows, to identify the direct effect and indirect effect on financial satisfaction. Path analysis has been developed as a method in finding out the logical and theoretical linkages based on correlations between the variables, however need to note that path analysis is not for discovering causal effects. Joo and Grable (2004) have used five regression equations in path analysis, as demographic and socioeconomic factors has included as part of the variables that examined in their study, with a total of eight variables (age, number of financial dependents, household income, marital status, gender, home ownership, education and ethnicity). They scaled low financial satisfaction to high financial satisfaction from lower steps to higher step by using 10-point-stair-step question to assess how satisfied respondents were with their current financial situation.

Delafrooz and Paim (2011) have used the same method as Joo and Grable (2004) to discover direct and indirect effect of factors on financial satisfaction. Three regression equations were included in path analysis, by using financial satisfaction, financial stress level, and financial behavior as dependent variable, respectively. Independent variables tested in the first analysis were demographic characteristic, financial knowledge, financial behaviors, and financial stress. Second equation used financial knowledge, financial behavior, demographic characteristics, while third equation used financial knowledge, and demographic characteristic as independent variables. Measurement of financial satisfaction was using 10-point Likert-type by asking 12 questions regarding current financial situation, saving, financial adequacy, overall financial satisfaction and so on.

DePianto (2010) has used ordinary least squares regression to explore the effect of personal income toward financial satisfaction, by holding the demographic differences constant across four groups, white males, white females, black males, black females. The control variables in demographic differences are survey year, time period dummy variable, age, age square, education, married, predicted income, work industry, occupation. Four regressions were tested on four race/gender pairs by controlling (log) personal income, (log) additional family income, and survey year, and another four race/gender pairs were controlling for same variables but time period dummies instead of survey year.

In addition, to evaluate the effect of individual unemployment on financial satisfaction, Krause (2010) was utilized three kinds of models in study, which are pooled OLS, OLS fixed effect and conditional logit model with fixed effect. Using the pooled OLS, then fixed effect OLS subsequently, is to clearly identify how fixed effects change the coefficients. Financial satisfaction in OLS with and without fixed effect, were range from 0 to 10. Conversely, as binary variable in conditional logit model, financial satisfaction was coded as 1 if satisfaction response higher than individual average. The control variables included in age, age squared, dummies for marital status, education variables, logarithm of gross household income. This study want to detect possible deviations and compare the coefficient of different cultures within Switzerland, thus four groups, German men, Latin men, German women, Latin Women were drawn from Swiss Household Panel, using the waves from 2000 to 2007.

Lown and Ju (1992) have developed a modified model to test on individual sense of well-being by adopted Deacon and Firebaugh management model as theoretical framework. In Deacon and Firebaugh model, it comprises three elements, known as input, throughput, and output. Input refers to resources available to household and resources allow them to meet demands; throughput refers to individual behaviors and management planning that connects input and output; output refers to satisfaction derive from demands met. They placed eight socioeconomic factors as input which included age, gender, marital status, education, saving, household income, household size and number of earners in

household. Throughputs were included attitudes toward credit use and credit practices. Output is financial satisfaction, was positioned as dependent variable. Therefore, to find out hypothesized relationships in model, hierarchical form of multiple regression analysis was used by entering groups of variables one at a time to test significant effect of each group on dependent variables.

Multiple regression analysis has been used as a measurement tool as well in the study of Yin-Fah, Masud, Hamid, and Paim (2010). They tested on the selected variables included age, gender, education attainment, income, income adequacy, ethnicity, family members, financial literacy, financial practices, money attitude, financial problems, and net worth on dependent variable, financial satisfaction. Cross-sectional data was surveyed through interview 1841 old persons who age 55 and above in Peninsular Malaysia, and concluded that health, income, financial literacy, money attitude, financial practices, financial problems, net worth, home ownership, and ethnic were significant contribute in financial satisfaction. Additionally, they computed Pearson Product Moment Correlations on financial satisfaction with selected variables to test on the correlation and strength between selected pairs of variables, and found that education attainment, financial literacy, money attitude, financial practices, financial problems, income and net worth are significant related to financial satisfaction. Same method was used by Mokhtar et al. (2015) by taking Malaysia public employees as targeted sample. Financial well-being was measured by Malaysian Personal Financial Well Being Scale (MPFWBS) that consist of 12 items, were asked about individual behavior, attitude, and confidence on their financial aspect. For independent variables, six items of socioeconomic factors, gender, age, education level, marital status, monthly, income, and working experience were took into analysis.

In study of Seay, Asebedo, Thompson, Stueve, and Russi (2015), two models was developed, first model included socio-demographics, financial constraints, home mortgage characteristic and financial characteristics as independents, while second model was included financial advice, objective financial knowledge, subjective financial knowledge, retirement saving, debt beliefs, and risk tolerance. This two-block hierarchical regression model by using

data from 2012 National Financial Capability Survey, allow exploring influence of holding mortgage debt into retirement on financial satisfaction. Single item Likert-type measure of dependent variable, financial satisfaction was used as measurement, specifically asked respondents, "Overall, thinking of your assets, debts and savings, how satisfied are you with your current personal financial condition?" Responses were range from 1(not all satisfied) to 10 (extremely satisfied), so higher response indicated higher financial satisfaction in retirement. The reason for them employed Hierarchical regression is to compare successive regression models and isolate the effect of insertion additional variables into analysis.

Study from Brown, Durand, Harris and Weterings (2014) was based on panel data that collected from nine waves of Household, Income, Labour, Dynamics in Australia (HILDA) survey to explore determinants of satisfaction level. Their data are drawn from 2001 to 2009 waves, with a total number of 33642 observations, by observing 3738 individuals in 9 times. They scaled dependent variables using 10-point scale on a score from 0 (totally dissatisfied) to 10 (totally satisfied). Two Pooled ordered probit models were estimated with and without age respectively, by testing effect of different sources of income (employment income, government income, investment income), age, marital status, house equity, employed, self employed, renting, mortgage on financial satisfaction. Most important is latent class ordered probit models were carried out to investigate the effect of independent variables on financial satisfaction over four life stages.

Vera-Toscano et al. was used ordered probit model in their research as well, since financial satisfaction is a categorical variable from 1 (totally unhappy) to 7(totally happy). Taking imputed monthly household income, income save, income needed, steady income, age, age square, health, social capital, subjective social class, number of adult living in the house, number of children living in the house, education level, employment status into model.

Furthermore, binomial probit model was utilized by Kifle and Kler (2008) in research of determinants of Africa immigrant's financial satisfaction in Australia. Financial satisfaction was a dummy variable in equation, coded as 1 if satisfaction and 0 if otherwise. A total of 820 sample size was drawn from 5 waves of panel-type HILDA survey dataset, and included age, age square, long term health problems, immigrants from South Africa and Zimbabwe, North Africa and the rest of Africa, arrived period, employment status, presence of children, qualification level as tested independent variable into equation.

Paper of Peiro (2006) has examined the association between socioeconomic factors, and financial satisfaction of individuals across 15 countries, using the sources from World Value Survey. The method used in his paper is ordered logit model, and variable tested were age, bad health, sex, number of children, marital status, size of town, education level, employment status, income level. In the survey, financial satisfaction has been range from 1 to 10, which from completely dissatisfied to completely satisfied.

Study from Coskuner (2016) was employed binary logistic regression analysis to examine the relationship between dependent variable, financial satisfaction and independent variables, financial behavior, financial knowledge, and demographic characteristic. Since the dependent variable in study of Coskuner (2016) is dichotomous (low and high financial satisfactions), binary logistic regression was well suited in testing hypotheses, by coded low financial satisfaction as "0", while high financial satisfaction as "1". For demographic characteristics, they tried to look at the effect of age, household income, and education on financial satisfaction. Income and education were coded as dummy variables, age was as continuous variable.

From the description above, different methods have been used by researchers to investigate human's financial satisfaction. Since financial satisfaction in this study is qualitative in nature, thus, binary response regression models are specifically employing in this study to investigate probability of Malaysian and Singaporean being financially satisfied, through demographic areas.

2.3 Theoretical Expectation

2.3.1 Household Income Level

Income is defined as flow of cash equivalents or cash that individuals received from work, capital or land. Individuals' income level has a significant positive indirect effect on their financial satisfaction level. It indicates that individuals with higher income level tend to have higher financial satisfaction level (Joo& Grable, 2004). This is possibly resulted from higher income level that allowed unexpected expenses; hence it will have lower vulnerability to financial disturbance (Grable, Britt & Cantrell, 2007). Based on the theoretical expectation, hypotheses are computed as below.

H1: Household income level has positive relationship on financial satisfaction in Malaysia and Singapore.

2.3.2 Age

Age is defined as number of year lived or the distance from birth. Lown&Ju (1992) mentioned that there is significant relationship between financial satisfaction and age. They stated that individual with older age will has higher financial satisfaction level. Hansen, Slagsvold, and Moum (2008) pointed out elderly are satisfied with their financial situation even they have a lower income. This resulted from it related to individuals' life cycle differential in health, size of household and wealth. Besides, it can also be explained by less debt and grater assets among the aged. Based on the theoretical expectation, hypotheses are computed as below.

H2: There is a positive relationship between age and financial satisfaction in Malaysia and Singapore.

2.3.3 Savings

Savings deal with amount of money saved or invested by individuals or household, including individual retirement account and other retirement accounts. In the study, correlation coefficient between financial satisfactions has indicated a positive relationship. The results suggest that active savers are more likely to have higher financial satisfaction level while individual who have a higher debt-to-income ratios tends to have a lower financial satisfaction level (Lown&Ju, 1992). Ali, Rahman&Bakar (2014) pointed out that individuals who have saving is more satisfied with their financial situation due to they will feel they are ready to overcome financial obstacles in their life. Based on the theoretical expectation, hypotheses are computed as below.

H3: Financial satisfaction is positively affected by savings in Malaysia and Singapore.

2.3.4 Employment Status

Employment status is known as a crucial extension to healthy worker effect. It determines the class position in labor market and processes of enter and exit the labor market (Richards &Paskov, 2016). The effect of employment on individuals' financial satisfaction is positively significant. Employed individual has a higher financial satisfaction as compared to retired and unemployed individual. This is due to unemployment will reduces the overall life satisfaction of unemployed individuals. Besides, unemployed individuals hope to get a job that is not related to their current income level (Rosal&Amestoy, 2006). Based on the theoretical expectation, hypotheses are computed as below.

H4: Employment status is positively associated with financial satisfaction in Malaysia and Singapore.

2.4 Conclusion

As conclusion, the previous findings and the review of methodology have been summarized in this chapter. Four hypotheses have been made, based on the theoretical expectations. Therefore, this study is going to run the data in the following chapter by using binary regression model, to examine the determinants of financial satisfaction. The independent variables use in this study including age, household income level, employment status, and savings.

CHAPTER 3: METHODOLOGY

3.0 Sources of Data

Data collection method plays an important role in this study because the data collected will be used to achieve the research objective. Data can be divided into two parts which either obtains from primary sources or secondary sources. Primary data defined as data that have not yet published on public, while secondary data can easily obtain from published resources such as database or articles published in book or online. In order to determine the relationship between four selected independent variables and financial satisfaction among the Malaysia and Singapore, secondary data from World Value Survey database are used.

World Value Survey (WVS) data sets have been broadly used by the researchers or international survey body to carry out their study and their analysis. It is a worldwide investigation from social scientists of the trends and variations in social, religious, cultures value, political and economy, led by an international team of scholars and WVS association. It is a nationally representative survey, represents almost 90 percent of world population as its surveys conducted in more than 90 countries. Since it covered most comprehensive and wide-ranging survey of human values and beliefs from more than 90 countries, thus it allows researchers to conduct global and comparative studies easily. For example, David Hayes, who under Personal Finance Research Centre with the assist from International Longevity Centre-UK and ESRC Secondary Data Analysis Initiative, have successfully conduct their analysis using WVS to examine financial well-being and happiness of elder individuals between countries (Hayes, 2014). Peiro (2006) conducted his study on 15 countries using WVS as well.

Banerjee (2015) mentioned that World Values Survey trust questions remain relevant in field of namely, inquiry and behavioral analysis in short run. Besides, World Values Survey trust questions remain relevant in captures expectations about trustworthiness in long run. Sapienza, Simats and Zingales (2013) have pointed out that World Value Survey (WVS) question is good as the effect of their variable taken from WVS were real. Dalton, Sickle and Weldon (2009) mentioned that they have checked the validity of WVS's cross-national patterns through some comparison. Despite the different methodologies used and overlapping time frame partially, they have explain the basic validity of WVS's cross-national patterns.

3.1 Data Description

The data extract from World Value Survey is wave 6. The timeframe of wave 6 is between years 2010 to 2014. The targeted countries to examine the financial satisfaction are Singapore and Malaysia. The survey done for Singapore is year 2012 while Malaysia is year 2011. The target population of this study focused on the individual in Malaysia and Singapore between the periods of 2010 to 2014 with age range from 18 to 88 years old. There are a total of 1299 and 1933 individual being included by using probability proportional to size (PPS) sampling technique to Malaysia and Singapore respectively.

While retrieving secondary data from the World Value Survey database, there is some missing data in at least one of the variables of Singapore. Therefore, we have used the list wise deletion method to exclude those missing data from the total sample. The purpose of applying this deletion method is because of it always produces unbiased regression slope estimates. In Singapore, of 1933 respondents, the majority are female respondents. Female respondents comprise of 54.94 % (1062 respondents) and male respondents only comprises of 45.06% (871 respondents). The sample of Malaysia, in this study consists of 1299 respondents. There are 668 male respondents and 631 female respondents.

Before apply the data collected into E-views, we need to process the data to ensure the accuracy of the data. There are four steps involved in data processing. First step is to collect the significant data from World Value Survey. Secondly, the data collected being screen, edit, recode and transform into applicable data. As some of the data obtained from World Value Survey contained outliers (e.g. age of the individual is lesser than 18 or greater than 80), some adjustments had been made so the data is correct. After the process of filter, only 1299 individuals for Malaysia and 1933 individuals for Singapore being included in this study for the purpose of increase the accuracy of the study. Next, study and analyze the transformed data by using E-Views 6 software. At the last, illustrate the result generated by E-Views. E-Views 6 software was applied in this study to run the analysis using the data collected from World Value Survey.

The dependent variable, financial satisfaction is extract from Question 59 and coded the answer from 1 to 5 as 0 (financial dissatisfied) and from 6 to 10 as 1 (financial satisfied). Questions 235, 237, 240 and 249 are used to examine the financial satisfaction. The independent variables that we used in this research are chosen from these four questions. The variables we study here are including savings, income level, age, and employment status. For question 235, the answer is range from 1 to 4, the answer for 1 to 3are recorded as 1 (savings) while 4is recoded as 0 (no savings). Question 237 using 10-point likert scale for its answer, 1 is represents the lowest income group and 10 is represents the highest income group. Question 240 is a short answer question for respondents to fill in their age. The answer for question 249 is range from 1 to 8; the answer which is 1 to 3 is recoded as 1 (employed) and 4 to 8 is recorded as 0 (unemployed). The details of the variables are summarized in table 3.1.

In this study, for the variable, employment status will be categorized into employment and unemployment. Employment will consist of full time employee, part time employee and self-employed. While under unemployment, retired, housewife and student are grouped together with unemployed. The reason retired, housewife, student have been grouped together with unemployed under unemployment status due to the sample size of unemployed in Malaysia and

Singapore data is only 23 and 81 people. Therefore, the percentage for unemployed over the total sample size is only 1.77% in Malaysia and 4.19% in Singapore. Also, retired, housewife and student have been grouped with unemployed because they have the same condition like unemployed which is do not have work and no salary received.

Table 3.1: Summary of the variables

<table>
<tr><th>Variables</th><th>Description</th></tr>
<tr><td>Financial Satisfaction (Y)</td><td>Question 59: How satisfied are you with the financial situation of your household? Please use this card again to help with your answer.

<table><tr><td>Completely Dissatisfied</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Completely Satisfied</td></tr><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr></table></td></tr>
<tr><td>Household Income Level (X_1)</td><td>Question 237: On this card is an income scale on which 1 indicates the lowest income group and 10 the highest income group in your country. We would like to know in what group your household is. Please specify the appropriate number, counting all wages, salaries, pensions and other incomes that come in.

<table><tr><td>Lowest Group</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Highest Group</td></tr><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr></table></td></tr>
<tr><td>Age (X_2)</td><td>Question 240: This means you are ____ years old (write in age in two digits).</td></tr>
</table>

<table>
<tr><td>Savings (X_3)</td><td>Question 235: During the past year, did your family (read out and code one answer).

1) Save money
2) Just get by
3) Spent some savings
4) Spent savings and borrowed money</td></tr>
<tr><td>Employment Status (X_4)</td><td>Question 249: Are you employed now or not? If yes, about how many hours a week? If more than one job: only for the main job.

<table>
<tr><td>Yes, has paid employment:</td><td></td></tr>
<tr><td>Full time employee (30 hours a week or more)</td><td>1</td></tr>
<tr><td>Part time employee (less than 30 hours a week)</td><td>2</td></tr>
<tr><td>Self employed</td><td>3</td></tr>
<tr><td>No, no paid employment:</td><td></td></tr>
<tr><td>Retired/pensioned</td><td>4</td></tr>
<tr><td>Housewife not otherwise employed</td><td>5</td></tr>
<tr><td>Student</td><td>6</td></tr>
<tr><td>Unemployed</td><td>7</td></tr>
<tr><td>Other (write in):</td><td>8</td></tr>
</table>
</td></tr>
</table>

3.2 Introduction of Binary Response Regression Models

Linear Probability Model (LPM), logistic and probit regressions are the most common models used with binary outcomes.

3.2.1 Linear Probability Model (LPM)

LPM works similar with normal multiple regression models, where the only different is the regressand is binary. With the assumption of the rate of changes in probability is constant across the other observations. Because of dependent variable is binary the conditional expectation of Y_i given X_i, $E(Y_i \mid X_i)$ is equal to the conditional probability that the event will occur with given X_i, $Pr(Y_i=1|X_i)$.

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \ldots + \beta_k X_{ki} + \mu_i$$

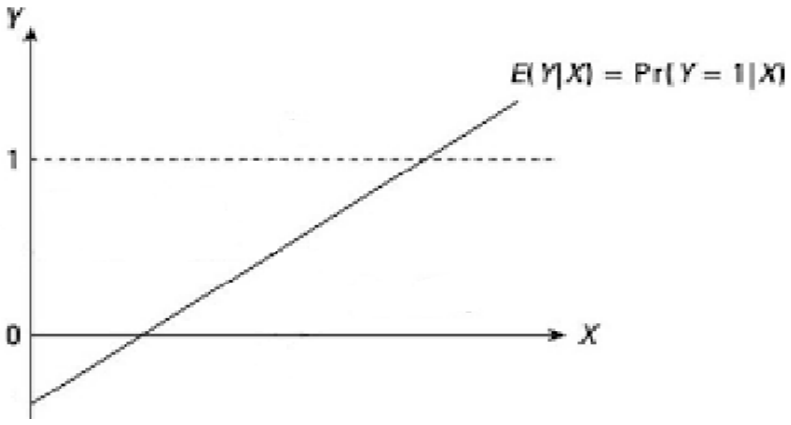
Assume $E(\mu_i)=0$ (to obtain unbiased estimators)

$$E(Y_i \mid X_i) = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \ldots + \beta_k X_{ki}$$

$$Pr(Y_i=1|X_i) = E(Y_i \mid X_i)$$

So,

$$Pr(Y_i=1|X_i) = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \ldots + \beta_k X_{ki}$$



The regression coefficient β_1 is the change in the probability that when Y_i equal to 1 associated with one unit change of the X_i, holding other variables constant. Y_i follow the Bernoulli probability distribution, where there only two outcomes which are 0 and 1 for Y_i across different values of X_i (Stock & Watson, 2012). As a result, the computed R^2 will be much lower than 1. Horowitz andSavin (2001) stated that linear probability model (LPM) has a poor fit to the data as the R^2 very low.

LPM is typically estimates by ordinary least square (OLS) with the assumption of value of dependent variable are continuous without setting the constraints. Hence, it made there is no guarantee that all of the predicted probabilities will lie between 0 and 1. The estimated probability value will become meaningless and does not make sense. So, LPM is not a good choice when the dependent variable is category variable. Besides, LPM has a defect that it does not have the constraint for the conditional probability lie between 0 and 1; the conditional probability may greater than 1 or less than 0. LPM shows bias and inconsistent results of ordinary least square (OLS). However, ordinary least square (OLS) on LPM is still used in some study. Some studies prefer LPM as it implies simple expression for the changes in the variable. Furthermore, LPM is chosen by some researchers due to the large sample size and simplifications implied on LPM. Furthermore, LPM is preferable as LPM lends itself to model selection algorithm ground on an adaptive gradient criterion (Horrace& Oaxaca, 2006). Pohlman and Leitner (2003) also pointed out that Logistic regression is more likely to produce a more precise estimate of probability than LPM.

Ordinary least squares (OLS) regression on linear probability model (LPM) is the most common used in linear model analysis. Although OLS does not require the disturbances to be normally distributed, but we still assume it to be normally distributed for the purpose of meeting the normality test. With a dichotomous dependent variable, normal distribution assumption of OLS is violated. That is because of the

Bernoulli probability distribution. However, OLS still remain unbiased although disturbances are not normally distributed since the objective is just estimation, so the normality assumption is not necessary. For the other hand, if the sample size increase indefinitely or large, LPM will follow the OLS procedure under the assumption of normality (Gujarati & Porter, 2009).

The study stated that on a number of cases, negative OLS estimated values were observed. On those cases, OLS estimated values were not strong related to dependent binary variable as logistic estimates. If the research main focus is to estimate the occurrence of event's probability, logistic regression is preferable. This is because OLS is not designed for the binary outcomes, whereas logistic regression model is. Hence, logistic regression model will provide a more accurate estimation of probability on the binary dependent outcome (Pohlman&Leitner, 2003).

3.2.2 Logistic Model and Probit Model

Logistic regression (logit) is a standard mathematical statistic method. It is one of the binary response regression model, applied in cases that explaining dependent variable is a binary, means that it only can takes on two values.

$$Z_i = \beta_1 + \beta_2 X_{2i} + \varepsilon_i$$

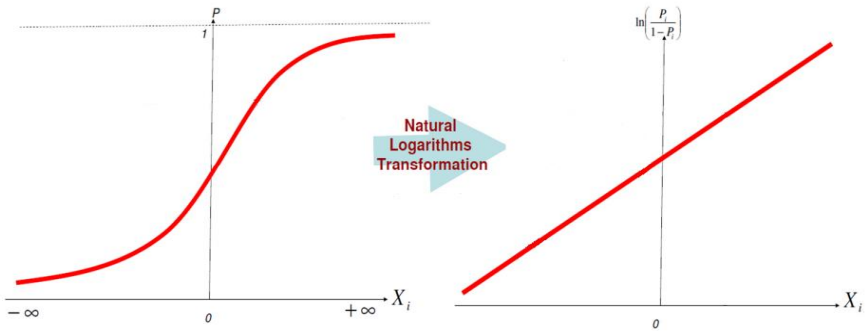
$$P_i = \frac{1}{1+e^{Z_i}}$$

After simplify,

$$P_i = \frac{e^{Z_i}}{1+e^{Z_i}}$$

After natural logarithms transformation,

Logistic model, $\ln(\frac{P_i}{1-P_i}) = Z_i$



Logit analysis is known as prediction of event's probability that either it will occur or not. Calculated probability is equal to either 1 or 0, 1 means the event occur while 0 means event does not occur. However, it is essential to realize natural logarithms transformation to establish this condition. If the independent variable's value is very low, then the probability of dependent variable will close to zero. In contrast, if the independent variable's value is very high, the probability of the dependent variable will close to one (Klieštik, Kočišová&Mišanková, 2015).

Probit model, also known as Normit model used standard normal distribution function in explaining binary dependent variable.

$$Z_i = \beta_1 + \beta_2 X_{2i} + \varepsilon_i$$

Given the assumption of normality,the

probability that $I_i^* \leq I_i$, can be computed as such:

$$P_i = P(Y = 1 | X_i)$$

$$= P(I_i^* \leq I_i)$$

$$= P(Z \leq \beta_1 + \beta_2 X_{2i})$$

$$= F(\beta_1 + \beta_2 X_{2i})$$

Where P(Y= 1|X) is the probability that

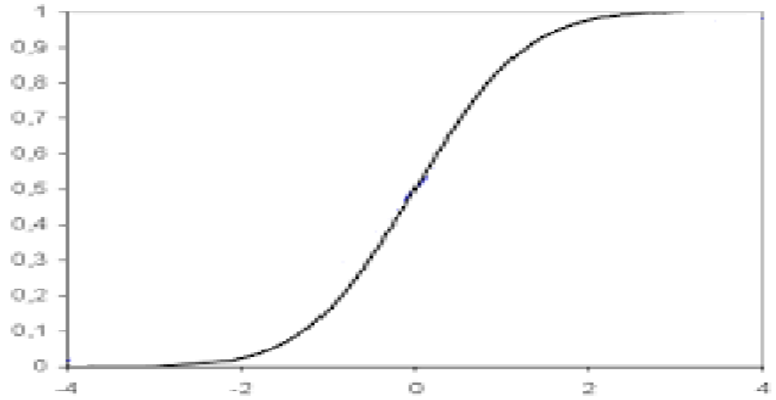
anevent occurs given the value(s) of X

$$Z \sim N(0, \delta^2)$$

F is the standard normal Cumulative Distribution Function

$$F(I_i) = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{I_i} e^{\frac{-z^2}{2}} dz$$

$$= \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{\beta_1 + \beta_2 X_i} e^{\frac{-z^2}{2}} dz$$



Klieštik, Kočišová and Mišanková (2015) mentioned that probit analysis is an alternate of logit analysis. The main difference between probit and logit is probit assumes normal distribution of independent variables in the model. Besides that, logistic function has a fatter tail. In practice, there is no significant differences between logit and probit. However, there will be different in the case that the sample contains extreme values of numerous observations.

3.2.3 Comparison of Binary Response Regression Model

LPM is typically estimates by ordinary least square (OLS). Ordinary least squares (OLS) regression on linear probability model (LPM) is the most common used in linear model analysis. LPM, logistic and probit regressions are the most common models used with binary outcomes. With a dichotomous dependent variable, normal distribution and homoscedasticity assumptions of OLS are violated. The study stated that on a number of cases, negative OLS estimated values were observed. On those cases, OLS estimated values were not strong related to dependent binary variable as logistic estimates. If the research main focus is to estimate the occurrence of event's probability, logistic regression is preferable. This is because OLS is not designed for the binary outcomes,

whereas logistic regression model is. Hence, logistic regression model will provide a more accurate estimation of probability on the binary dependent outcome (Pohlman&Leitner, 2003).

Horowitz andSavin (2001) stated that linear probability model (LPM) has a poor fit to the data and it is badly misspecified. Besides, LPM has a defect that it does not have the constraint for the conditional probability lie between 0 and 1; the conditional probability may greater than 1 or less than 0. LPM shows bias and inconsistent results of ordinary least square (OLS). However, ordinary least square (OLS) on LPM is still used in some study. Some studies prefer LPM as it implies simple expression for the changes in the variable. Furthermore, LPM is chosen by some researchers due to the large sample size and simplifications implied on LPM. Furthermore, LPM is preferable as LPM lends itself to model selection algorithm ground on an adaptive gradient criterion (Horrace& Oaxaca, 2006). PohlmanandLeitner (2003) also pointed out that Logistic regression is likely to produce a more precise estimate of probability.

Other than LPM, the binary response model we used in our study is logit model and probit model. It is a logit model when the function is cumulative logistic distribution function while it is a probit model when the function is cumulative normal distribution function. Cumulative logistic distribution and cumulative normal distribution are both symmetrical distribute around zero, the difference is cumulative logistic distribution has a fatter tails. Logit model and probit model are estimated by maximum likelihood as maximum likelihood estimator is the most accurate estimator in large sample (Horowitz &Savin, 2001). Logit and probit are the common techniques for estimate models with dichotomous dependent variable. While estimating the models with dichotomous dependent variable, logit and probit are preferable to solve the specification and efficiency problem of ordinary least square (Nagler, 1994).

Logistic regression is a standard mathematical statistic method. It is one of the binary response regression model, applied in cases that explaining dependent variable is a binary, means that it only can takes on two values. Logit analysis is known as prediction of event's probability that either it will occur or not. Calculated probability is equal to either 1 or 0, 1 means the event occur while 0 means event does not occur. However, it is essential to realize natural logarithms transformation to establish this condition. If the independent variable's value is very low, then the probability of dependent variable will close to zero. In contrast, if the independent variable's value is very high, the probability of the dependent variable will close to one (Klieštik, Kočišová and Mišanková, 2015).

Klieštik, Kočišová and Mišanková (2015) mentioned that probit analysis is an alternate of logit analysis. The main difference between probit and logit is probit assumes normal distribution of independent variables in the model. Besides that, logistic function has a fatter tail. In practice, there is no significant differences between logit and probit. However, there will be different in the case that the sample contains extreme values of numerous observations.

In conclusion, Logit and Probit are more preferable than LPM in testing the category dependent variable. Logit and Probit uses the method of Maximum likelihood, that models itself have provide the advantage of obtaining efficient estimators and producing normally distributed coefficient estimates. Therefore, they allow the use of typical hypothesis testing techniques, with the precondition of sample size is large (Gujarati & Porter, 2009). Nevertheless, LPM still conduct in this study as it can provide an easily understanding and concept in interpretation of result. For example, everyone can have some understanding of what it would means that a one unit increase in independent variable is associate with a percentage point increase in the probability of dependent variable (Hippel, 2015).

3.3 Model Specification

LPM

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Let, Y_i = Probability of respondent i to be financially satisfied

X_1 = HOUSEHOLD INCOME LEVEL

X_2 = AGE

X_3 = 1 is SAVINGS

0 is DEBT

X_4 = EMPLOYMENT STATUS

1 is EMPLOYED

0 is UNEMPLOYED

LOGIT

$$Y_i = \frac{1}{1+e^{-(\beta_0+\beta_1 X_1+\beta_2 X_2+\beta_3 X_3+\beta_4 X_4+\varepsilon)}}$$

Let, Y_i = Probability of respondent i to be financially satisfied

X_1= HOUSEHOLD INCOME LEVEL

X_2 = AGE

X_3 = 1 is SAVINGS

0 is DEBT

X_4 = EMPLOYMENT STATUS

1 is EMPLOYED

0 is UNEMPLOYED

PROBIT

$$Y_i = P\ (Z \leq \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon)$$

Let, Y_i = Probability of respondent i to be financially satisfied

X_1 = HOUSEHOLD INCOME LEVEL

X_2 = AGE

X_3 = 1 is SAVINGS

0 is DEBT

X_4 = EMPLOYMENT STATUS

1 is EMPLOYED

0 is UNEMPLOYED

3.4 Individual Significant Test

3.4.1 Household Income Level

H_0: Thereis no significance relationship between household income level and financial satisfaction in Malaysia and Singapore.

H_1: Thereis significance relationship between household income level and financial satisfaction in Malaysia and Singapore.

3.4.2 Age

H_0: Thereis no significance relationship between age and financial satisfaction in Malaysia and Singapore.

H_1: Thereis significance relationship between age and financial satisfaction in Malaysia and Singapore.

3.4.3 Savings

$H_{0:}$ Thereis no significance relationship between savings and financial satisfaction in Malaysia and Singapore.

$H_{1:}$ Thereis significance relationship between savings and financial satisfaction in Malaysia and Singapore.

3.4.4 Employment Status

H_0: Thereis no significance relationship between employment status and financial satisfaction in Malaysia and Singapore.

H_1: Thereis significance relationship between employment status and financial satisfaction in Malaysia and Singapore.

3.5 Conclusion

This chapter has introduced binary regression models and compared their differences. Besides, the data sources from World Value Surveys that used in this study are proved to be reliable and valid by previous researchers. Individual significant test will carry out to identify the significant relationship between dependent and independent variables. Hence, chapter 4 is going to discover the relationship and do a discussion on the result found.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

This chapter is going to analyze the data collected from World Value Survey and a comprehensive discussion will be provided based on the results of descriptive analysis and regression analysis.

4.1 Descriptive Analysis

4.1.1 Central Tendency of Variables

Table 4.1: Malaysia

	Financial Satisfaction	Income Level	Age	Savings	Employment Status
Mean	0.725173	5.998460	40.00693	0.979215	0.765204
Median	1.000000	6.000000	41.00000	1.000000	1.000000
Maximum	1.000000	10.00000	80.00000	3.000000	6.000000
Minimum	0.000000	1.000000	18.00000	0.000000	0.000000
Standard Deviation	0.446599	1.838217	13.96405	0.158087	0.462281
Skewness	1.008780	0.658089	0.309647	3.699762	0.305837
Kurtosis	2.017636	3.001222	2.451752	53.50040	15.43258
Jarque-Bera	272.5510	93.76206	37.02702	140998.0	8386.294
Probability	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	942.0000	7792.000	51969.00	1272.000	994.0000
Sum SqDev	258.8868	4385.997	253102.9	32.43880	277.3872

Table 4.2: Singapore

	Financial Satisfaction	Income Level	Age	Savings	Employment Status
Mean	0.721159	5.700983	41.87481	0.028453	0.593378
Median	1.000000	6.000000	40.00000	0.000000	1.000000
Maximum	1.000000	10.00000	89.00000	1.000000	7.000000
Minimum	0.000000	1.000000	18.00000	0.000000	0.000000
Standard Deviation	0.448545	1.520592	16.59463	0.166307	0.512976
Skewness	0.986371	0.451340	0.414841	5.672278	0.667871
Kurtosis	1.972928	3.365292	2.225969	33.17474	13.56665
Jarque-Bera	398.4065	76.37524	103.6971	83700.02	9136.515
Probability	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	1394.000	11020.00	80944.00	55.00000	1147.000
Sum SqDev	388.7046	4467.168	532037.7	53.43508	508.3952

Based on the descriptive statistic of Malaysia and Singapore, the mean of financial satisfaction for Malaysia and Singapore is 0.725173 and 0.721159, respectively. These two figures are approximately same and not sufficient enough to understand their financial satisfaction level, as well as the factors that affect the financial satisfaction. Therefore, this study would like to use binary regression models, LPM, logit and probit to examine the financial satisfaction.

4.2 Result of Regressions

Table 4.3: Empirical result

Variables	Malaysia			Singapore		
	(1) LPM	(2) Logit	(3) Probit	(4) LPM	(5) Logit	(6) Probit
Household Income Level	0.072091***	0.369167***	0.219552***	0.077194***	0.409934***	0.241498***
	(0.006436)	(0.036076)	(0.021082)	(0.006398)	(0.036558)	(0.021172)
Age	0.002440***	0.014535***	0.008627***	0.002654***	0.015504***	0.009029***
	(0.000855)	(0.004781)	(0.002798)	(0.000592)	(0.003396)	(0.001986)
Savings	0.161892**	0.851245**	0.518892**	0.312236***	1.420637***	0.864845***
	(0.074738)	(0.392043)	(0.242522)	(0.058412)	(0.296832)	(0.180045)
Employment Status	0.051480**	0.276576*	0.165886*	-0.069366***	-0.398854***	-0.230084***
	(0.025876)	(0.145839)	(0.086520)	(0.019142)	(0.106366)	(0.061901)
Intercept	-0.002803	-2.760844	-1.645728	-0.092256	-3.074620	-1.821998
	(0.090947)	(0.496466)	(0.300782)	(0.072086)	(0.388466)	(0.230008)
R-squared	0.104516			0.100499		
McFadden R-squared		0.089090	0.089058		0.086107	0.085793
F statistic	0.000000			0.000000		
LR statistic		0.000000	0.000000		0.000000	0.000000

Note: Standard errors are present in parentheses. ***, ** and * represent statistical significance at 1%, 5% and 10% level, respectively.

LPM

MALAYSIA

$$\widehat{Yi} = -0.002803 + 0.072091X_1 + 0.002440\,X_2 + 0.161892\,X_3 + 0.051480\,X_4$$

SINGAPORE

$$\widehat{Yi} = -0.092256 + 0.077194\,X_1 + 0.002654\,X_2 + 0.312236\,X_3 - 0.069366X_4$$

Let, Y_i = Probability of respondent i to be financially satisfied

X_1= HOUSEHOLD INCOMELEVEL

X_2= AGE

X_3= 1 is SAVINGS

0 is DEBT

X_4= EMPLOYMENT STATUS

1 is EMPLOYED

0 is UNEMPLOYED

LOGIT

MALAYSIA

$$\widehat{Yi} = \frac{1}{1+e^{-(-2.760844 + 0.369167X_1 + 0.014535X_2 + 0.851245X_3 + 0.276576X_4)}}$$

SINGAPORE

$$\widehat{Yi} = \frac{1}{1+e^{-(-3.074620 + 0.409934\,X_1 + 0.015504\,X_2 + 1.420637\,X_3 - 0.398854X_4)}}$$

Let, Y_i=Probability of respondent i to be financially satisfied

X_1=HOUSEHOLD INCOMELEVEL

X_2= AGE

X_3= 1 is SAVINGS

0 is DEBT

X_4= EMPLOYMENT STATUS

1 is EMPLOYED

0 is UNEMPLOYED

PROBIT

MALAYSIA

$\widehat{Yi}$= P (Z ≤ -1.645728 + 0.219552 X_1 +0.008627X_2 + 0.518892 X_3 + 0.165886 X_4)

SINGAPORE

$\widehat{Yi}$ = P (Z ≤ -1.821998 + 0.241498 X_1 + 0.009029X_2 + 0.864845 X_3 - 0.230084 X_4)

Let, Y_i=Probability of respondent i to be financially satisfied

X_1= HOUSEHOLD INCOME LEVEL

X_2= AGE

X_3= 1 is SAVINGS

0 is DEBT

X_4= EMPLOYMENT STATUS

1 is EMPLOYED

0 is UNEMPLOYED

4.3 Result Interpretation

To be more clearly, based on the Table 4, model 1, 2, 3 refer as LPM, logit, probit models for Malaysia, respectively. Model 4, 5, 6 refer as LPM, logit, probit models for Singapore, respectively.

4.3.1 Model Significance

LPM, logit, and probit modelsare applied in both countries and all models are statistically significant in this study.From the p-value of F-statistic in LPM; LR statistic in logit and probit models, all six models are showing value (0.0000), which lower than 1%, 5% and 10% of significant level.

4.3.2 Goodness of Fit

For LPM, in Malaysia, R-squared value is 0.104516. It showed that 10.45% of the total variation in probability can be explained by the total variation in all independent variables, taking into account degree of freedom. McFadden R-squared value for logit and probit are 0.089090 and 0.089058 respectively. It indicated that 8.91% of the prediction for both model is correct.

Whereas, in Singapore, the R-squared value is 0.100499 in LPM, indicated that 10.05% of the total variation in the probability can be explained by the total variation in all independent variables, taking into account of degree of freedom. For logit model, the McFadden R-squared is 0.086107 and it has been interpreted as 8.61% of the prediction is correct. For the third model which is probit model, it obtained a McFadden R-squared value of 0.085793, means that 8.58% of the prediction by this probit model is correct.

4.3.3 Significance of Independent Variables

4.3.3.1 Household Income Level

Household income level is significant to explain financial satisfaction in both Malaysia and Singapore at significant level of 1%, 5%

and 10%, which p-values are lesser than significant level in all six models (models 1 to 6). A positive relationship between household income level and financial satisfaction is confirmed in Malaysia and Singapore, as coefficients are positive value in all six models (models 1 to 6).

With the coefficient value of 0.072091 in model 1, on average, the probability of being financial satisfied for the Malaysia respondents will increase by 0.072091, for every increase in income level, holding other variables constant. Coefficient value of 0.369167 in model 2 indicates if household income level increases, on average, the loan odd ratio of Malaysian being more financial satisfied increases by 0.369167, ceteris paribus. For model 3, when household income level increases, on average, it is more likely for Malaysian to be financially satisfied, by holding other variables constant.

Model 4 shows, if other variables remain constant, for every increase in income level, on average, the probability of Singaporean being financially satisfied will increase by 0.077194. While come to model 5, which is logit model, on average, the loan odd ratio of Singaporean's financial satisfaction increases by 0.409934 with an increase in income level, ceteris paribus. Model 6 can be interpreted as, on average, it is more likely forSingaporean to be financially satisfied when income level increases, by holding other variables constant.

From the result above, it showed that household income level tend to increase individual financial satisfaction in both countries, which accord with the findings of Ju and Lown (1991) and Brown and Gray (2014). According to Lhing, Nanseki and Takeuchi (2013), the researchers found that education is an important factor that can help to increase individual's income. This means that an individual with higher educational level will earn higher income than the individual with lower educational level. Since living cost in both Malaysia and Singapore is high, therefore a higher income is required by them in order to ensure they have enough income to

sustain their daily expenses. Besides, they can have excess income to do savings after they have paid for the daily expenses (Dynan, Skinner and Zeldes, 2004). Hence, the higher income earners will tend to more satisfied towards their financial situation. This is because their income not only can fulfil the living expenses but also can provide them a better life in the future with adequate savings. Unfortunately, individuals with lower household income will be in disadvantage because their income is insufficient to cope with high living cost so they will tend to be financially dissatisfied.

4.3.3.2 Age

Based on the result, age reports significant to financial satisfaction in both countries, at 1%, 5%, and 10% significant level. Besides, it is a positive relationship between age and financial satisfaction in, by looking at the positive value of coefficients in six models. Therefore, this study can conclude that financial satisfaction level raise with the increasing age in Malaysia and Singapore.

The coefficient of age shows in model 1is 0.002440 implies, for individual's age increases by 1 year, on average, the probability of being financially satisfied will increase by 0.002440, ceteris paribus. While come to model 2, on average, the loan odd ratio of Malaysian being more financial satisfied increases by 0.014535 with every increase in age, ceteris paribus. Model 3 reveals on average, it is more likely for Malaysian to be financially satisfiedwhen age increases, by holding other variables constant.

Coefficients of age, 0.002654 in model 4 shows a positive effect on Singaporean's financial satisfaction. For instance, for every 1 year increase in age, on average, the probability of being financially satisfied will increase by 0.002654, ceteris paribus. Besides, Model 5 shows on average,

the loan odd ratio for Singaporean being more financial satisfied increase 0.015504 along with age, ceteris paribus. Lastly, model 6 indicates Singaporean is more likely to be financially satisfied when age increase, by holding other variables constant.

Based on the results revealed by LPM, logit and probit models, both countries show age is significantly and positively affects financial satisfaction, which is financial satisfaction steadily increase over life stages. This finding obtains a similar result with findings from Hansen, Slagsvold, and Moum (2008), Delaney, Newman, and Nolanin (2006) and Plagnol (2011). This can further suggests other than the influence from income, financial satisfaction steadily increases with age might come with the possible impact from asset and liabilities. Individuals are more likely financially satisfied when come to an increase in financial assets and decrease in liabilities (this indirectly implied that saving and debts positively and negatively influence financial satisfaction, respectively).

Plagnol (2011) explained debt occurred only when individuals financial aspiration are greater than their financial means. Therefore, debts are more lightly occur in early life stages due to individual's aspirations are always and particular high in young ages, as their current income cannot meet their aspiration. When come to old ages in life stages, declining in level of debt allow for two reasons. First is downward adjustment of aspirations, people might have lower material aspirations as their age, and hence making them too spend within what they can afford. Second is steeper increase in financial means, this allow individual to buy things without on credit. Besides, elders decrease in dependency burden, such as housing loan, car loan, children education fees imply fewer financial obligations they have to bare, can increase their financial satisfaction. The finding from Plagnol (2011) is supported by Hansen,Slagsvold, and Moum (2008),indirectly pointed out debt is significantly and negatively to financial satisfaction.

4.3.3.3 Savings

Based on the result, model 1 to 3 reveals savings is statistically significant to individual's financial satisfaction level at significant level of 5% and 10 %, but model 4 to 6 reveals savings is statistically significant at significant level of 1%, 5% and 10%. Nevertheless, savings still a significant factor of financial satisfaction in both Malaysia and Singapore. When come to the relationship, saving show a consistent result which is positive in both Malaysia and Singapore.

Based on the model 1, for Malaysian who have savings, on average, the probability of being financially satisfied will increase by 0.161892, holding other variables constant. Model 2 indicates on average, the ln odd ratio of Malaysians who have savings is 0.851245higher in financial satisfaction level than who have debts. Model 3 shows Malaysians are more likely to be financially satisfied for who have savings instead of debt.

For the condition of Singaporeans, model 4 shows for them who got savings, on average, the probability of being financially satisfied will increase by 0.312236, holding other variables constant. Model 5 illustrates on average ln odd ratio of being financially satisfied is 1.420637 higher for Singaporeans who have savings instead of debts, ceteris paribus. Lastly, model 6 display on average, the probability of being financially satisfied for Singaporean who have saving is higher than who is in debt, ceteris paribus.

In this finding, savings is positively related with financial satisfaction. Seay, Asebedo, Thompson, Stueve, and Russi (2015) and Ali, Rahman and Bakar (2014) also obtained the same result which is saving has positive effect on financial satisfaction through financial planning. As we know, savings is come from part of income that does not spend on expenditures. Because there are many uncertainties in the future, saving can be an important form of liquidity to pay for unexpected events and

emergencies, such as car breakdown, children education cost and medical emergency. If there is no savings serves as backup funds, unexpected events can cause economic and material hardships that could threaten well-being (Michael Collins &Gjertson, 2015). This is the reason for savings has a positive effect on financial satisfaction, as it helps an individual or family become financially secure. Also, saving is essentially needed when individuals close to retirement, because they still need sources to smooth their consumption (Lusardi, 2003), especially the cost of living are currently high. Therefore, individuals need to have sturdy savings, in order to have a comfortable retirement.

When come to debt, if material aspiration is greater than financial means, individuals will try to use debt to fulfill their perceived needs (Plagnol, 2011). For instance, credit card is one of the ways that required less effort for individuals to finance the products and services they want immediately. Credit card allows consumers to make purchases with unparalleled convenience and speed, they will tend to spend more, and often more than their income and what they have in bank. The problem will start from consumers pay the minimum amount due or even skip payments. The high interest will keep on accumulating until you repay all the debt, and it has become a quite significant amount.

The same scenario is happened on other types of loans such as housing loans, mortgage loans and education loans. Serious debt problem may require individuals to take years to get out of their repayment, which could be financial burden and hardship for individuals and families (Soll, Keeney &Larrick, 2013; Alam, Rahim, Haq& Khan, 2014). Credit card burden is even more serious for young adults, especially for them have not reached full earning potential. Consequently, without good management in debt, high level of debt would lead to financial instability, further exacerbate financial stress and depression, and worse self reported general health as well as higher diastolic blood pressure (Sweet et al., 2013).

Therefore, higher debt level is negatively affecting the financial satisfaction can conclude from this finding.

4.3.3.4 Employment Status

Based on the result, employment status is significantly affect financial satisfaction at significant level of 5% and 10% in model 1, and significant to financial satisfaction at significant level of 10% in model 2 and 3. In addition, model 4, 5, 6 show that employment status is significantly but negatively affect financial satisfaction at significant level of 1%, 5%, and 10%. Therefore, a positive relationship is proving in Malaysia but negative relationship in Singapore.

For model 1, on average, higher financial satisfaction scores of 0.051480 are reported by Malaysian who has employed, compare with individual who unemployed by holding other variables constant. Model 2 reports ln odd ratio for employed Malaysians being financial satisfied is 0.276576, on average, holding other variables constant. Model 3 shows on average, employed Malaysians are more likely to be financially dissatisfied, ceteris paribus.

Negative value, 0.069366 in model 4 implied that, if the Singaporean being employed, on average, the probability of being financially satisfied will decrease by 0.069366, ceteris paribus. Model 5 can be interpreted as on average, ln odd ratio of Singaporean's financial satisfaction level is 0.398854 lower when they are employed, ceteris paribus. Model 6 found Singaporean are less likely to be financially satisfied when they are employed.

Results show that to have higher financial satisfaction, Malaysian is prefers to be employed but Singaporean is prefers to be unemployed. In the case of Malaysia, individuals who are employed will receive higher

financial satisfaction and individuals who are unemployed will receive lower financial satisfaction and these findings are accord with the finding of Krause (2010) and Plagnol (2011). The reason to have higher financial satisfactionmay be due to employed individuals able to earn salary or wages from their jobs to cover all expenditures.Sass, Belbase, Cooperrider and Ramos-Mercado (2015) highlighted that daily expenses and debt payments are hard to be covered by the unemployed individuals who have lost their income sources. On the other hand, the possible reason which might lead to lower financial satisfaction among the unemployed individuals is income reduction or income loss. This is because according to Ahn, García and Jimeno (2007), the amount of income reduce or loss is the opportunity cost of unemployed individuals and it has negative effect on financial satisfaction. Thus, the higher the opportunity cost, the lower the financial satisfaction.

However, in the case of Singapore, individuals who are unemployed, still more likely to perceive higher financial satisfaction. According to Nordenmark (1999), despite the fact that a majority of the researches point out the negative consequences of unemployment, some of the investigations indicate that reactions to the unemployment situations differ between groups of people.For example, a majority of the unemployment studies that have compared women's and men's reactions to unemployment have found that men suffer more than women do. A main explanation for these results is that for women who have unqualified jobs and strongly engaged in housework, would not miss employment as much as men do. Also, husband's earning is one of the factors that would influence women's participation in the labor market. Husband with higher incomes will tend to have a smaller participation of wives in labor force, as they could afford the luxury of stay-at-home wives (Jalilvand, 2000). Hence, housewives more likely to have higher financial satisfaction even they do not work.

Next, for students who receive greater financial support, they will more likely to receive high financial satisfaction level, because they have less financial concern during schooling period. Nursaw Associates (2015)explained student financial support as institutional funding for students from under-represented groups to support the costs associated with higher education study (for example, bursaries and scholarships, fee waivers and in-kind support such as accommodation discounts). Institutional findings reported that students who receive financial support can have higher ability to continue and enter to higher education, and consider withdrawing less than their peers (Nursaw Associates, 2015).

For retirees, they are come to the old age of life stages; even they incur income reduction but still perceive higher financial satisfaction, main explanation isincrease in financial assets and decrease in liabilities (same situation with age variable) (Plagnol, 2011; Hansen, Slagsvold &Moum, 2008). Besides, when individuals decide to stop working, personal savings, social security benefits, and pensions are the three main sources support themselves financially, as their income from work is no longer be available (Knoll, 2011). Seay, Asebedo, Thompson, Stueve and Russi (2015) and Ali, Rahman and Bakar (2014) supported the fact that the higher the savings individuals have, the higher the financial satisfaction they could perceive.

The immediate consequences of unemployment are a reduced in income and an increased amount of time spend in non-labor market activities such as leisure. Individuals who have a weak motivation to be engaged in paid work have been explained as the main cause of unemployment in general and long-term unemployment. Normally, for unemployed who have weak employment commitment, they have a more instrumental attitude to their former job and are engaged in meaningful activities outside of the labor market. For those who have high employment commitment, unemployed will result a lower well-being in their sense (Nordenmark, 1999).

From here can conclude that if individuals are more emphasize and satisfy in their social needs, such as leisure activities or housework, but not mainly through employment, there are high chances unemployment situation will not affect the level of well-being in a considerable way. It is possible for them to re-interpret unemployment situation, and change in strategies and behavior (Nordenmark, 1999).

4.5 Conclusion

This chapter have been analyzed the data collected and provided a detail discussion on the results. Perhaps a clearer ideas and understanding can obtain based on the interpretation of the models, variables and etc that are conducted. Hence, last chapter is going to provide a summary and discussion of major finding. Limitation and recommendation for future researches will provide as well.

CHAPTER 5: DISCUSSION AND SUMMARY OF THE FINDINGS

5.0 Introduction

This chapter would draw an overall conclusion on major finding and provide some policies that may useful in improving individual's financial satisfaction, based on the conditions of Malaysia and Singapore. Limitations of this study also will be covered in this chapter, as well as recommendations for future researches.

5.1 Summary of Findings

Table 5.1: Summary of Findings

HYPOTHESES	MALAYSIA			SINGAPORE		
	(1) LPM	(2) LOGIT	(3) PROBIT	(4) LPM	(5) LOGIT	(6) PROBIT
H1: Household income level has positive relationship on financial satisfaction.	Supported	Supported	Supported	Supported	Supported	Supported
H2: There is a positive relationship between age and financial satisfaction.	Supported	Supported	Supported	Supported	Supported	Supported
H3: Financial satisfaction is positively affected by savings.	Supported	Supported	Supported	Supported	Supported	Supported
H4: Employment status is positively associated with financial satisfaction.	Supported	Supported	Supported	Not Supported	Not Supported	Not Supported

In a conclusion, the hypotheses 1, 2 and 3 are supported theoretical expectation, while the relationship of employment status of Malaysia is consistent with theoretical expectation but Singapore is not.

LPM, logit and probit models of Malaysia and Singapore support the hypothesis 1, which is income level is significantly and positively influence the financial satisfaction. Hence, a higher level of household income will generate a higher financial satisfaction level. For hypothesis 2, which there is a positive relationship between age and financial satisfaction between Malaysia and Singapore also support by the three models. This second hypothesis indicates that financial satisfaction will increase along with age. Moreover, hypothesis 3 also support by all models in both countries, this means that savings can affect the financial satisfaction significantly and positively. Therefore, both Malaysians and Singaporean who have savings will financially satisfy than those who have debts. The hypothesis 4 which refer to employment status is positively associated with financial satisfaction is only supported by the three models in Malaysia however it is not support by the three models in Singapore. Thus, this different results show that Malaysians who are employed have higher financial satisfaction while Singaporeans who are employed have lower financial satisfaction. Lastly, this study will provide some relevant policies for each variable in order to help to enhance the individual's financial satisfaction.

5.2 Limitations of the Study

5.2.1 Research Merely Done within Two Countries

This study has successfully achieved objectives with a significant statistical result. However, there are certain limitations and weak points throughout the study. This study are mainly focus on individuals who staying in Malaysia and Singapore which are Asia countries but ignoring other continents of the world such as Africa, Australia, and Europe. There might be different relationship between income, saving, age and employment status on individual’s financial satisfaction from different

continents due to different in cultural and locations. The different in development on economy also might make a big difference in satisfaction level for countries. For example, relationship between age and financial satisfaction level of Malaysians and Singaporeans is statistically significant and positive. However, there might show an inconsistent relationship in other continents of the world with this study due to location and cultural differences.

5.2.2 Research only Including One Year Data

Besides that, another limitation of this study is using cross sectional data instead of pooled panel data. As cross sectional data only allow collecting data from many countries at single point in time but pooled panel data is combination of cross sectional and time series data, which able to collect data from many countries at different times. Thus, the statistical results of this study will only shows the current financial satisfaction level of Malaysian and Singaporean based on household income, saving, age and employment status. Over time, there might be changes in technologies, political, social and economic of a country that might be affect individual's behavior and viewpoint. Because of that, individuals' financial satisfaction in future might be different with this study, in terms of income, saving, age and employment status. For instance, individuals in future may have a higher level of financial satisfaction level due to economic growth and welfare provide to unemployment individuals by government, making their financial satisfaction different with current.

5.2.3 Grouping the Data Differ from Conventional

Grouping of options in WVS may not well suit in every study, for example employment status in this case. For question regard to employment status, WVS grouping the retired, housewife and student, as

well as unemployed under no paid employment. But following the conventional definition, some studies would group retired, housewife, and students as participants that outside the labour market.

However, this study would follow the grouping of WVS due to the small sample size of unemployed in data. The total proportions of unemployed over total sample size are low in both countries data, which are 1.77% in Malaysia, and 4.19% in Singapore. As retired, housewife and students do not work and no monthly salaries receive, which same with the condition of unemployed, hence they have been grouped under unemployment status in this study.

5.3 Recommendations for Future Study

5.3.1 Comparison between Same Economic Status Countries

The recommendations will be given based on the limitations mentioned above. Firstly, this study is recommended to conduct in other countries either within the Asia or other continents of the world such as Africa, Australia, Europe and others. By comparing the countries that different in various perspectives or by including more countries in research, the more informative data and variability result can be obtained. The comparison between the countries can bring out the more comprehensive result due to cultural and location differences in each countries.

5.3.2 Data Covering More Periods

Cross sectional data that used for this study may not be sufficient enough when compare to panel data. Panel data involving two dimensions which are cross sectional and time series data while cross sectional only involved only one. For example, future researches may include both Malaysia and Singapore for the period between 2014 and 2015 to identify

the changes in level of financial satisfaction. By taking two dimensions into account, there will be higher accuracy on econometric estimates and on capturing the complexity of human behavior than merely focus on cross sectional. The more degree of freedom would bring more precise result for the study. Although there is higher dimension, but the computation is much easier (Cheng & Wang, 2006).

5.3.3 Grouping Follow Own Study

In this study, due to the sample size of unemployed in data is small therefore retired, housewife, student and unemployed have been grouped under unemployment status. Hence, future researchers are recommended to group the data based on the conventional definition of unemployment. For example, retired, housewife, and student can be grouped into people outside the labour force.

5.4 Policy Implications

Policies to improve and achieve to a better state of financial well-being will be given based on the results and justifications found in this finding. Perhaps policy makers and government can obtain practical and functional recommendation from this study.

5.4.1 Increase Minimum Wage

In year 2016, Malaysia government has fixed its Minimum Wages Order from RM900 to RM1000 per month for Peninsular Malaysia, and RM800 to RM920 for states Sabah, Sarawak, and Labuan (malaymail online, 2016, Lo, 2016). For Singapore, its government has no imposed any policy on minimum wage. In fact, for wages below RM1000 or SGD

1000 are no longer enough for households to sustain their cost of living, as the values of the wages are significantly declined when adjusted to the inflation. This condition further worst for families that are only headed by one earner, they have to undertake the responsibilities to cover the living expenses of the whole families. To improve households from lower income level to higher income level, this study may recommend government to raise the minimum wages. An expectation on raising the minimum wage and indexing it to inflation would ensure that low-wage workers could adopt a standard of living commensurate with the current economy.

Besides, raising the minimum wage is more attractive to people to be employed. For low income workers, they are more likely to be less committed to their jobs than better pay workers, and less likely to remain at their jobs for long term. This can be seen from the hospitality and food service sector, which are one of the lowest-paying sectors (AlBattat & Som, 2013). For example, McDonald and Burger King have a very high turnover rate, which over 100 percent for every year (NATIONAL EMPLOYMENT LAW PROJECT, 2015). Despite of the higher labor cost for business, higher wages can motivate workers to work harder that bring the advantages for their employers, such as lower turnover, improve productivity, can be said as a 'win-win' situation for both parties (Wolfers & Zilinsky, 2015).

Lastly, increase in minimum wage can lead to an increase in individual saving. Saving is come from the proportional of income, thus individual can save more when they have higher level of income (Dynan, Skinner & Zeldes, 2004). High-income individuals can make their consumption by less likely on credit, as they have higher ability to afford. Atkins and Lund (2009) also stated that a healthy growth in income could rebuild saving, reduce households debt burden without reducing their consumption as much.

5.4.2 Implement Earned Income Tax Credit (EITC)

This research may recommend Malaysia and Singapore governments to implement Earned Income Tax Credit (EITC) to benefit low-income to moderate income group. EITC is a permanently refundable tax credit for helping the low-income workers to offset income tax, growing food and energy prices, and necessities (Hungerford & Thiess, 2013). It is work by the amount of credit increase as earning increase, until it reaches a maximum level, and then falls as earnings increase.

Take noted that, the amount of EITC is depends on worker's income, marital status, and number of children (IRS, 2017). For the working families who have children and income level is below the stated maximum level, they are qualifying for the federal EITC. For the low income working group without children, can receives EITC but in a very small amount.

Besides, EITC is only qualifying for citizens who have earned income, so it can encourage and reward people to work, either employed in formal sectors, or employed in informal sectors. From the findings, it shows that Malaysian, who are employed and Singaporean, who are unemployed, are more likely to be financially satisfied. The converse result of Singaporean might due to they are more prefer to be self-employed or look for jobs that can offer higher wage. However, as long as they got work, they still can benefit from this EITC.

For example, United State is one of the countries that implement this tax provision, with a total of 26 states, plus with the District of Columbia, have set up their own EITC, and found a successful result. EITC has helped the family with children to boost their wages about USD265 a month. The features of EITC have successfully encourage a significant number of single parents with children to leave welfare and go

for work, and low-wage workers to increase their work hours (Center of Budget and Policy Priorities, 2016).

5.4.3 Tighten Bank Lending Standard

As discussed, around 253,635 Malaysians have declared bankrupt in year 2013 and 7323 cases for Singaporean from year 2013 up to year 2016 (Yuen, 2014 ; Ministry of Law, 2017), and credit card debt is one of the debts that cause them to bankruptcy. Credit card is commonly held and widely used by the young adults in the past decades, due to easily accessible and has been marketed aggressively to young population, even they are less able to pay. Tighten the requirements of approving credit card may recommend to governments because majority of adults who aged below 35 are indebted. For example, individuals who have income above RM 33,600 and SGD 33,600 per annum are only applicable for credit card, since the ability to repay the debt is higher. To set the credit level for them, consumer income and commitment level is the basic area that commercial banks need to concern carefully. The credit limit shall set which do not exceed 2 months of the salary of the credit card applicant.

5.4.4 Introduce Senior Citizens Savings Scheme (SCSS)

Based on the result, elders will tend to have higher financial satisfaction compare to other age groups because it might be due to few reasons such as they have pay off their car loans and housing loans, they have more savings and assets, and they do not have to spend more on apparel or luxury products during retirement as well. Therefore, they just need less income to afford their living expenditure. However, in both Malaysia and Singapore, they are facing a same problem which is individuals who are retire soon have insufficient funds in their retirement accounts. According to the TODAY news which stated on 16 May 2016, it

showed that many Malaysian retirees tend to used up all their savings in Employees Provident Fund (EPF) within three to five years. Thus, another way to prevent retirees from running out of money is both governments may introduce the Senior Citizens Savings Scheme (SCSS) to them.

For instance, India government has introduced this scheme to the retired Indian citizens who aged 55 and above. This investment is suitable for the retirees because of few reasons such as it is safe, it offers capital protection and the interest income will be credited to holder's account every three months. In addition, the amount can be invested by the depositors is at least INR1, 000 to INR 15 LAKHS and the depositors can also increase the tenure of the scheme for three years more after the maturity period of 5 years had reached (Motiani, 2017). By investing in this scheme, the retirees can earn another source of income which is interest income to cover their living cost and most important is retirees can no longer worry their less amount retirement funds is not enough for their retirement life.

5.4.5 Implement Education Reform Project

According to finding of Romanian Statistical Review (2014), it indicated that unemployment among high-school graduates will decline if they demand higher education. Thus, encouraging individuals to pursue higher education can pull them out of unemployment. However, recently, the news of New Straits Times (2014) and The Straits Times (2016) have stated that there are mismatch of skills between recent graduates and employers' demand; therefore this issue has increased the unemployment rate among graduates. In order to solve this issue, governments may adopt higher education reform to produce a workforce with the skills requested by the employers. The education reform comprises any planned changes in school or school system functions, from teaching methodologies to administrative processes.

The higher education reform project has been implemented in Mongolia which aims to increase the number of globally competitive higher education graduates to fulfill the labor market demands (Asian Development Bank, 2011). In implementing this project, Mongolia has receiving loan from Asian Development Bank. As a result, the unemployment rate among the youth and fresh graduates will be gradually decline. The reason why most of the employers prefer to hire graduates with skills is because they can increase the productivity. Meanwhile, an increase in the growth of productivity will also lower down the production costs and increase the returns on investments (International Labour Conference, 2008).

In addition, Mongolia's higher education reform project will tend to rise up workers income level. The Bureau of Labor Statistics showed that some workers will receive higher paid from their employers is due to they have credentials, in-demand skills, performed well in their jobs and others (Torpey, 2015). After undergoing the project, the higher education institutions will be able to equip the students with different skills and make them more competitive than those who do not possess any skills. Thus, employers are willing to pay them higher income.

5.4.6 Increase Financial Literacy

Nowadays, credit cards are often used by college students to buy non-necessities, and also college students that come from low income families to support their daily. Therefore, those students might be failed to pay their credit cards debts. According to Smith (2011), financial literacy plays an important role in managing debts. In order to avoid college students fail to pay their credit card debts, we may recommend governments to implement a program which can used to enhance financial literacy is adding the element of financial literacy into the subjects learned in primary and secondary schools. The purpose of initiating this program is

they want to let students understand the basic of money management and also learn how to make informed financial decisions. According to Loriggio (2014), the financial literacy has been embedded in the school systems of the Canada provinces such as Ontario, Quebec and Saskatchewan. In addition, more than $2.5 million not only has been invested by province of Ontario in financial knowledge but also provide teachers the professional learning opportunities to improve the financial literacy among the students.

5.4.7 Increase the Amount of Financial Aids

For the students who are pursuing their studies in higher learning institutions or study in Form Six, they will have to purchase academic text books and extra reference books for each subject so it is costly for them to buy all the books. Besides, students buy and read the books is only for examinations instead of obtaining needed information (Inderjit, 2014) so after they passed the subjects during exam they will tend to sell the books to others at a price lower or give to their friends. According to Hamedi (2011), photocopying academic books is cheaper than buying original textbooks as students can save up more than 50% and 75% on local books and imported books respectively through photocopying (as cited in Rashid, 2014). As a result, students are more willing to photocopy book because it can help to reduce their financial burdens. Therefore, the Malaysia government may consider increasing the amount of financial aids given to both pre-university and universities students in purchasing books. For instance, the amount of 1Malaysia Book Voucher (BB1M) should be rise up to more than RM250 as currently Ringgit Malaysia is plummeting so it has made the imported books more expensive compare to past years (Tan, 2015). Thus, the RM250 voucher that government previously given to the Malaysian students who are pursuing their studies in tertiary education institutions (1 Malaysia, 2016) and studying Form Six (Sario, 2016) will be insufficient. Lastly, students' financial burden might be able to reduce

when they obtain more financial aids from government to purchase quality textbooks.

5.5 Conclusion

Importantly, the objectives of study have been met and the hypotheses have been proved by using LPM, logit model and probit model. Besides, this chapter has provided a summary and discussion of major finding. Limitations of this study have been identified, thus recommendations are provide to improve future studies. Lastly, suggestions are given to policy agencies that may useful in improve citizen's financial satisfaction.

REFERENCES

1 Malaysia. (2016, February 19). 1 Malaysia book voucher helps student. Retrieved from http://www.1malaysia.com.my/news-articles/1malaysia-book-voucher-helps-student

Ahn, N., Garcia, J. R., & Jimeno, J. F. (2004). The impact of unemployment on individual well-being in the EU. *European Network of Economic Policy Research Institutes*, 1-19.

Alam, S. S., Rahim, R. A., HAQ, M. R., & KHAN, M. A. (2014). What influence credit card debts in young consumers in Malaysia. *Journal of Public Administration, Finance and Law*, 6, 106-116.

AlBattat, A. R. S., & Som, A. P. M. (2013). Employee dissatisfaction and turnover crises in the Malaysian hospitality industry, 8(5), 62-71.

Ali, A., Rahman, M. S. A. & Bakar, A. (2014). Financial satisfaction and the influence of financial literacy in Malaysia. *Social Indicators Research*, 120(1), 137-156.

Aliran. (2013). 75% of retirees have less than RM50000 in EPF savings. Retrieved 2 February, 2017 from https://aliran.com/web-specials/2013-web-specials/75-of-retirees-have-less-than-rm50000-in-epf-savings/

Asian Development Bank. (2011). *Improving labor market through higher education reform project in Mongolia.* Retrieved from https://www.adb.org/publications/improving-labor-market-through-higher-education-reform-project-mongolia

Aspirantsg (n.d.). Has retirement in Singapore become an urban legend? AspirantSG. Retrieved from https://www.aspirantsg.com/has-retirement-in-singapore-become-an-urban-legend/

Atkins, C., & Lund, S. (2009).The economic impact of increased US savings. Retrieved 1 March, 2017 from http://www.mckinsey.com/global-themes/employment-and-growth/the-economic-impact-of-increased-us-savings

Banerjee, R. (2015). On the interpretation of World Values Survey trust question - global expectations vs. local beliefs. *Economics Working Papers, 2015-19*. Retrieved from Aarhus University website: http://pure.au.dk/portal/en/publications/on-the-interpretation-of-world-

values-survey-trust-question--global-expectations-vs-local-beliefs(61547ec5-25aa-4178-a64b-92809d661f9d).html

Benjamin, C. Y., Masud, J., Hamid, T. A, & Paim, L. (2010). Financial Wellbeing of Older Peninsular Malaysians: A Gender Comparison. *Asian Social Science,* 6(3), 58-71.

Bonke, J. & Browning, M. (2003). The distribution of well-being and income within the household. *Centre for Applied Microeconometrics, 2013-01*. Retrieved from University of Copenhagen website: http://www.econ.ku.dk/cam/wp0910/wp0203/2003-01.pdf

Brown, S., & Gray, D. (2016). Household finances and well-being: An empirical analysis of comparison effects. *Journal of Economic Psychology*, 53, 17-36.

Brown, S., Durand, R. B., Harris, M. N., & Weterings, T. (2014). Modelling financial satisfaction across life stages: A latent class approach. *Journal of Economic Psychology*, 45, 117–127.

Chappell, B. (2015). U.S. slips in world well-Being rankings; Panama is no. 1. Retrieved 17 February, 2017 from http://www.npr.org/sections/thetwo-way/2015/06/24/417171484/u-s-slips-in-world-well-being-rankings-panama-is-no-1

Cheng, H. & Wang, Y. (2006). Panel Data Analysis- Advantages and Challenges. *Wise Working Paper Series 0602*. China: Xiamen University.

Chong, S. C., Sia B. K, Ng, K. K., Lim C. H., & Ooi B. C.(2012). Financial satisfaction and intergenerational resource transfers among urban older Malaysians. *American Journal of Scientific Research*, 43, 32-45.

Clark, A., Senik, C. & Yamada, K. (2013). The Jones in Japan: Income Comparisons and Financial Satisfaction. *Discussion Paper No. 866.* Retrieved from Osaka University website: http://www.iser.osakau.ac.jp/library/dp/2013/DP0866.pdf

Consumer Financial Protection Bureau (2014). Financial wellness at work. A review of promising practices and policies. *Financial Wellness at Work Report*, 2-44.

Coskuner, S. (2016). Understanding factors affecting financial satisfaction: The influence of financial behavior, financial knowledge and demographics. *Imperial Journal of Interdisciplinary Research (IJIR)*, 2(5), 377-385.

Dalton, R., Sickle, A. V. & Weldon, S. (2009). The individual–institutional nexus of protest behavior. *British Journal of Political Science*, 40(1), 51-73.

Delafrooz, N., & Paim, L. H. (2011). Determinants of financial wellness among Malaysia workers. *African Journal of Business Management*, 5(24), 10092-10100.

Delafrooz, N., & Paim, L. H. (2013). Role of financial stress on relationship between financial problem and financial wellness among Malaysia workers. *African Journal of Business Management*, 7(20), 1966-1972.

Delaney, L., Newman, C. & Nolan, B. (2006). Reference dependent financial satisfaction over the course of the Celtic Tiger: a panel analysis utilising the Living in Ireland Survey 1994-2001. *Trinity Economic Papers (TEP) Series, 2006-11*. Retrieved from Trinity College Dublin website: http://www.tcd.ie/Economics/TEP/2006_papers/TEP11.pdf

Department of Statistics Malaysia, Official Portal. (2015). Report of household income and basic amenities survey 2014. Retrieved February 5, 2017, from https://www.dosm.gov.my/v1/index.php?r=column/cthemeByCat&cat=120&bul_id=aHhtTHVWNVYzTFBua2dSUlBRL1Rjdz09&menu_id=amVoWU54UTl0a21NWmdhMjFMMWcyZz09

DePianto, D. E. (2010). Financial satisfaction and perceived income through a demographic lens: Do different race/gender pairs reap different returns to income? *Social Science Research*, 40(3), 773-783.

Devaney, S. A., & Su, Y. (1997). Factors predicting the most important source of retirement income. *Compensation and Working Conditions*, 25-31.

Drentea, P., & Lavrakas, P. J. (2000). Over the limit: the association among health, race and debt. *Social Science & Medicine*, 50, 517-529.

Dynan, K. E., Skinner, J., & Zeldes, S. P. (2004). Do the rich save more? *Journal of Political Economy*, 112(2), 397-444.

Falahati, L., & Paim, L. H. (2011). Gender differences in financial well-being among college students. *Australian Journal of Basic and Applied Sciences*, 5(9), 1765-1776.

Financial Fitness Group (n.d.). The economic ramifications of financial stress: How financial wellness benefits boost the bottom line. *Financial Literacy Pays Dividends*, 2-8.

Garrett, S., & James III, R. N. (2013). Financial ratios and perceived household financial satisfaction. *Journal of Financial Therapy*, 4(1), 39-62.

Gourinchas, P., Parker, J. A. (2001). Precautionary savings. The empirical importance of precautionary saving. *AEA Papers and Proceedings*, 91(2), 406-412.

Grable, J. E., Britt, S. & Cantrell, J. (2007). An exploratory study of the role financial satisfaction has on the thought of subsequent divorce. *Family and Consumer Sciences Research Journal*, 38, 130-150.

Gujarati, D. N. & Porter, D. C. (2009). Basic Econometric. (5th ed.). Boston, MA: McGraw-Hill/Irwin.

Hansen, T., Slagsvold, B. & Moum, T. (2008). Financial satisfaction in old age: A satisfaction paradox or a result of accumulated wealth? *Social Indicators Research*, 89(2), 323-347.

Harper, B. (n.d.). Credit card debt and compulsive buying. Indiana University Southeast, 2-14.

Hayes, D. (2014). What is the relationship between financial satisfaction and happiness among older people? Personal Finance Research Centre, 2-22.

Ho, P. Y., Ng, J. L. & Siew, M. K. (2013). Financial satisfaction among the urban elderly in Selangor, Malaysia.

Horowitz, J. L. & Savin, N. E. (2001). Binary response models: Logits, probits and semiparametrics. *Journal of Economic Perspectives,* 15(4), 43-56.

Horrace, W. C. & Oaxaca, R. L. (2006). Results on the bias and inconsistency of ordinary least squares for the linear probability model. *Economics Letters*, 90(3), 321-327.

Inderjit, S. (2014). Reading trends and improving reading skills among students in Malaysia. *International Journal of Research in Social Sciences*, 3(5), 70-81.

International Labor Organization. (2014). Wages in Asia and the Pacific: Dynamic but uneven progress. Retrieved from http://www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---sro-bangkok/documents/publication/wcms_325219.pdf

International Labour Office. (2008). Skills for improved productivity, employment growth and development. *International Labour Conference, 97th session*, 1-160.

Investor Protection Trust (n.d.). The basics of savings and investing: Investor education 2020.

IRS (2017). Earned Income Tax Credit (EITC). Retrieved 1 March, 2017 from https://www.irs.gov/credits-deductions/individuals/earned-income-tax-credit

Jalilvand, M. (2000). Married woman, work and values. Monthly Labour Review, 26-31.

Joo, S. H., & Grable, J. E. (2004).An exploratory framework of the determinants of financial satisfaction. *Journal of Family and Economic Issues*, 25(1), 25-50.

Joo, S., & Thomas Garman, E. (1998). Personal Financial Wellness May be the Missing Factor in Understanding and Reducing Worker Absenteeism.

Ju, I. S., & Lown, J. M. (1991). Credit use and financial satisfaction. *Journal of Consumer Education*, 9, 20-25.

Kifle, T. & Kler, P. (2008). The Financial Satisfaction of African Immigrants in Australia. *Australasian Review of African Studies,* 29(1&2), 66-77.

Kim, J., & Thomas Garman, E. (2003). Financial stress and absenteeism: An empirically derived research model. *Financial Counseling and Planning*, 14 (1), 1-13.

Klieštik,T., Kočišová,K. & Mišanková, M. (2015). Logit and Probit Model used For Prediction of Financial Health of Company. *Procedia Economics and Finance*, 23, 850-855.

Knoll, M. A. Z. (2011). Behavioral and psychological aspects of the retirement decision. Social Security Bulletin, 71(4), 15-32.

Kok, C. (2016, September 3). Many Malaysian households at risk of shocks. The Star. Retrieved from http://www.thestar.com.my/business/business-news/2016/09/03/many-malaysian-households-at-risk-of-shocks/

Krause, A. (2010). The effect of unemployment on life and satisfaction an analysis for Switzerland in its cultural diversity. *Preliminary Draft*, 1-40.

Lhing, N. N., Nanseki, T., & Takeuchi, S. (2013). An analysis of factors influencing household income: A case study of PACT microfinance in Kyaukpadang Township of Myanmar. *American Journal of Human Ecology*, 2(2), 94-102.

Lim, L. (2016). Bottom 30%, top 10% of Singapore households saw fastest real income growth. Retrieved February 6, 2017, from http://www.channelnewsasia.com/news/singapore/bottom-30-top-10-of/2551154.html

Lo, A. (2016). Minimum wage, maximum delay. Retrieved 1 March, 2017 from http://www.thestar.com.my/metro/views/2016/05/06/minimum-wage-maximum-delay-the-long-overdue-legislation-is-better-late-than-never/

Loriggio, P. (2014, December 14). Canada's schools need 'focused, consistent' financial education program: experts. Retrieved from http://globalnews.ca/news/1726978/canadas-schools-need-focused-consistent-financial-education-program-experts/

Lown, J. M. & Ju, I. (1992). A model of credit use and financial satisfaction. *Financial Counseling and Planning,* (3), 105-124.

Lusardi, A. (2003). Planning and Saving for Retirement. Department of Economics, 1-46.

Malaymail online (2016). New RM1,000 minimum wage policy kicks in tomorrow. Retrieved 1 March, 2017 from

http://www.themalaymailonline.com/malaysia/article/new-rm1000-minimum-wage-policy-kicks-in-tomorrow

Michael Collins, J., & Gjertson, L. (2015). Emergency savings for low-income consumers. 12-17.

mindhealthconnect (2016). Financial stress. Retrieved 12 August, 2016 from http://www.mindhealthconnect.org.au/financial-stress

Ministry of Law (2017). Number of bankruptcy applications, orders made and discharges. Retrieved 27 June, 2017 from https://www.mlaw.gov.sg/content/io/en/bankruptcy-and-debt-repayment-scheme/statistics.html

Mokhtar, N., Husniyah, A. R., Sabri, M. F., & Abu Talib, M. (2015). Financial well-being among public employees in Malaysia: A preliminary study. *Asian Social Science*, 11(18), 49-54.

Motiani, P. (2017). Senior citizen savings scheme saves tax, beats bank FDs: Here's all you need to know about it. Retrieved from http://economictimes.indiatimes.com/wealth/invest/all-you-need-to-know-about-senior-citizen-savings-scheme/articleshow/57251600.cms

Nagler, J. (1994). Scobit: An alternative estimator to logit and probit. *American Journal of Political Science*, 38(1), 230-255.

NATIONAL EMPLOYMENT LAW PROJECT (2015). Employment and business effects of minimum wage increases. Retrieved 19 February, 2017 from http://www.nelp.org/content/uploads/Minimum-Wage-Basics-Business-Effects.pdf

New Straits Times. (2014). High ratio of jobless youths to overall unemployment in Malaysia: World Bank. Retrieved February 15, 2017, from http://www.nst.com.my/news/2015/09/high-ratio-jobless-youths-overall-unemployment-m%E2%80%99sia-world-bank

Nielsen (2014, February 26). Malaysians are gearing towards early retirement. Nielsen. Retrieved from http://www.nielsen.com/my/en/press-room/2014/global-aging.html

Noordin, N., Zakaria, Z., Sawal, M. Z. H. M., Ngah, K. & Hussin, Z. H. (2012). Bankruptcy among young executives in Malaysia. *2012 International Conference on Economics Marketing and Management*, 28, 132-136.

Nordenmark, M. (1999). Unemployment, employment commitment and well-being.The Psychosocial Meaning of (Unemployment among Women and Men. 7-42.

Nursaw Associates (2015). What do we know about the impact of financial support on access and student success? Report to the Office for Fair Access (OFFA), 1-42.

O'Neill, B., Xiao, J. J., Bristow, B., Patricia Brennan, P. & Kerbel, C. M. (2000). Successful financial goal attainment: Perceived resources and obstacles. *Financial Counseling and Planning,* 11 (1), 1-12.

Pearlin, L. I., Menaghan, E. G., Lieberman, M. A., & Mullan, J, T. (1981). The stress process. *Journal of Health and Social Behavior*, 22, 337-357.

Peiró, A. (2006). Happiness, satisfaction and socioeconomic conditions: Some international evidence. *The Journal of Socio-Economics,* 35(2), 348-365.

Plagnol, A. C. (2011). Financial satisfaction over the life course: The influence of assets and liabilities. *Journal of Economic Psychology,* 32(1), 45–64.

Pohlman, J. T. & Leitner, D. W. (2003). A Comparison of Ordinary Least Squares and Logistic Regression. *Ohio Journal of Science,* 103(5).

Porter, N. M. & Garman, E. T. (1992). Testing a Conceptual Model of Financial Well-Being. *Financial Conseling and Planning,* 4, 135-165.

Rashid, H. A. (2014). Usage of the 1 Malaysia book voucher: Book purchasing decisions among undergraduates of the University of Malaya. *Malaysian Journal of Media Studies*, 16(2), 17-34.

Rautio, N., Kautiainen, H., Koponen, H., Mäntyselkä, P., Timonen, M., Niskanen, M., Keinänen-Kiukaanniemi, S. (2011). Financial satisfaction and its relationship to depressive symptoms in middle-aged and older adults: Results from the FIN-D2D survey. *International Journal of Social Psychiatry,* 59(3), 239–246.

Richards, L. & Paskov, M. (2016). Social class, employment status and inequality in psychological well-being in the UK: Cross-sectional and fixed effects analyses over two decades. *Social Science & Medicine,* 167, 45-53.

Rosly, B. (2014, April 30). The cost showdown: M'sia vs. Singapore. FMT news. Retrieved January 20, 2017, from http://www.freemalaysiatoday.com/category/money/2014/04/30/the-cost-showdown-msia-vs-singapore/

Sabri, M. F. F. (2011). Pathways to financial success: Determinants of financial literacy and financial well-being among young adults. *Graduate Theses and Dissertations,* 1-112.

Sapienza, P., Toldra-Simats, A. and Zingales, L. (2013). Understanding trust. *The Economic Journal,* 123(573), 1313- 1332.

Sario, N. (2016, March 31). There's cash in vouchers. Retrieved from http://www.thestar.com.my/news/nation/2016/03/31/theres-cash-in-vouchers-some-booksellers-profiteering-from-bb1m-scheme/

Seay, M., Asebedo, S., Thompson, C., & Stueve. C., & Russi, R. (2015). Mortgage Holding and Financial Satisfaction in RetiremenT. *Journal of Financial Counseling and Planning*, 26(2), 200-216.

Smith, T. D. (2011). Maxed out: The relationship between credit card debt, credit card distress and grade point averages for college students. Michigan State University, 1-88.

Soll, J. B., Keeney, R. L., & Larrick, R. P. (2013). Consumer misunderstanding of credit card use, payments, and debt : Causes and solutions. Duke University: The Fuqua School of Business, 1-50.

Standish, M., & Witters, D. (2014). Country well-being varies greatly worldwide. Retrieved 17 February, 2017 from http://www.gallup.com/poll/175694/country-varies-greatly-worldwide.aspx.

States Times Review (2015). Gallup index: Singapore ranked 97th out of 145 countries in well-being. Retrieved 17 February, 2017 from http://statestimesreview.com/2015/06/27/gallup-index-singapore-ranked-97th-out-of-145-countries-in-well-being/

Tan, T. (2015, September 18). Country spotlight: Malaysia: A mixed bag for bookselling. Retrieved from http://www.publishersweekly.com/pw/by-topic/international/international-book-news/article/68108-country-spotlight-malaysia-a-mixed-bag-for-bookselling.html

The Straits Times. (2016, October 26). Mismatch of skills hurting labour market: MAS. Retrieved February 17, 2014, from http://www.straitstimes.com/business/economy/mismatch-of-skills-hurting-labour-market-mas

TODAY. (2016, May 16). 78% of Malaysians 'do not have enough funds for retirement'. Retrieved from http://www.todayonline.com/world/asia/78-malaysians-do-not-have-enough-funds-retirement

Torpey, E. (2015). *S*ame occupation, different pay: How wages vary. Retrieved from https://www.bls.gov/careeroutlook/2015/article/wage-differences.htm

Turner, M. L.(n.d.). Productive Emotions in the Workplace. Leadstar, 2-3.

Vera-Toscano, E., Ateca-Amestoy, V., & Serrano-Del-Rosal, R. (2006). Building financial satisfaction. *Social Indicators Research*, 77(2), 211-243.

Vlaev, I., & Elliott, A. (2014). Financial Well-Being Components. Soc Indic Res, 1103–1123.

Wolfers, J., & Zilinsky, J. (2015). Higher wages for low-income workers lead to high productivity. Retrieved 19 February, 2017 from http://users.nber.org/~jwolfers/policy/RealTime%20Economic%20Issues%

20Watch%20Higher%20Wages%20for%20Low-Income%20Workers%20Lead%20to%20Higher%20Productivity.pdf

Xiao, J. J., & Porto, N. (2016). Which financial advice topics are positively associated with financial satisfaction? *Journal of Financial Planning*, 52-60.

Yin-Fah, B. C., Masud, J., Hamid, T. A., & Paim, L. (2010). Financial wellbeing of older peninsular Malaysians: A gender comparison. *Asian Social Science*, 6(3), 58-71.

Yuen, M. K. (2014). Bankruptcy cases on the rise in Malaysia. Retrieved 1 March, 2017 from http://www.thestar.com.my/news/nation/2014/04/09/bankruptcy-on-the-rise-in-malaysia/

Zurlo, K. A. (2009). Personal Attributes and the financial well-being of older adults: The effects of control beliefs. *Population Aging Research Center*, 1-37.

Appendix

Appendix 1: E-view Result - Descriptive Data of Malaysia

	FS	INC	AGE	SAVING	EMPLOY
Mean	0.725173	5.998460	40.00693	0.979215	0.765204
Median	1.000000	6.000000	41.00000	1.000000	1.000000
Maximum	1.000000	10.00000	80.00000	3.000000	6.000000
Minimum	0.000000	1.000000	18.00000	0.000000	0.000000
Std. Dev.	0.446599	1.838217	13.96405	0.158087	0.462281
Skewness	-1.008780	-0.658089	0.309647	-3.699762	0.305837
Kurtosis	2.017636	3.001222	2.451752	53.50040	15.43258
Jarque-Bera	272.5510	93.76206	37.02702	140998.0	8386.294
Probability	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	942.0000	7792.000	51969.00	1272.000	994.0000
Sum Sq. Dev.	258.8868	4385.997	253102.9	32.43880	277.3872
Observations	1299	1299	1299	1299	1299

Appendix 2: E-view Result - Linear Probability Model (LPM) of Malaysia

Dependent Variable: FS
Method: Least Squares
Date: 03/04/17 Time: 14:56
Sample: 1 1299
Included observations: 1299

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INC	0.072091	0.006436	11.20146	0.0000
AGE	0.002440	0.000855	2.852643	0.0044
SAVING	0.161892	0.074738	2.166126	0.0305
EMPLOY	0.051480	0.025876	1.989506	0.0469
C	-0.002803	0.090947	-0.030825	0.9754

R-squared	0.104516	Mean dependent var	0.725173
Adjusted R-squared	0.101747	S.D. dependent var	0.446599
S.E. of regression	0.423269	Akaike info criterion	1.122226
Sum squared resid	231.8291	Schwarz criterion	1.142123
Log likelihood	-723.8857	Hannan-Quinn criter.	1.129692
F-statistic	37.75698	Durbin-Watson stat	1.786157
Prob(F-statistic)	0.000000		

Appendix 3: E-view Result - Logit Model of Malaysia

Dependent Variable: FS
Method: ML - Binary Logit (Quadratic hill climbing)
Date: 03/04/17 Time: 14:58
Sample: 1 1299
Included observations: 1299
Convergence achieved after 4 iterations
Covariance matrix computed using second derivatives

Variable	Coefficient	Std. Error	z-Statistic	Prob.
INC	0.369167	0.036076	10.23304	0.0000
AGE	0.014535	0.004781	3.040258	0.0024
SAVING	0.851245	0.392043	2.171305	0.0299
EMPLOY	0.276576	0.145839	1.896441	0.0579
C	-2.760844	0.496466	-5.560992	0.0000

McFadden R-squared	0.089090	Mean dependent var	0.725173
S.D. dependent var	0.446599	S.E. of regression	0.422797
Akaike info criterion	1.078930	Sum squared resid	231.3123
Schwarz criterion	1.098827	Log likelihood	-695.7650
Hannan-Quinn criter.	1.086396	Restr. log likelihood	-763.8130
LR statistic	136.0960	Avg. log likelihood	-0.535616
Prob(LR statistic)	0.000000		

Obs with Dep=0	357	Total obs	1299
Obs with Dep=1	942		

Appendix 4: E-view Result - Probit Model of Malaysia

Dependent Variable: FS
Method: ML - Binary Probit (Quadratic hill climbing)
Date: 03/04/17 Time: 14:59
Sample: 1 1299
Included observations: 1299
Convergence achieved after 4 iterations
Covariance matrix computed using second derivatives

Variable	Coefficient	Std. Error	z-Statistic	Prob.
INC	0.219552	0.021082	10.41437	0.0000
AGE	0.008627	0.002798	3.083505	0.0020
SAVING	0.518892	0.242522	2.139564	0.0324
EMPLOY	0.165886	0.086520	1.917300	0.0552
C	-1.645728	0.300782	-5.471496	0.0000

McFadden R-squared	0.089058	Mean dependent var	0.725173
S.D. dependent var	0.446599	S.E. of regression	0.422749
Akaike info criterion	1.078967	Sum squared resid	231.2596
Schwarz criterion	1.098865	Log likelihood	-695.7893
Hannan-Quinn criter.	1.086433	Restr. log likelihood	-763.8130
LR statistic	136.0475	Avg. log likelihood	-0.535635
Prob(LR statistic)	0.000000		

Obs with Dep=0	357	Total obs	1299
Obs with Dep=1	942		

Appendix 5: E-view Result - Descriptive Data of Singapore

	FS	INC	AGE	SAVING	EMPLOY
Mean	0.721159	5.700983	41.87481	0.971547	0.593378
Median	1.000000	6.000000	40.00000	1.000000	1.000000
Maximum	1.000000	10.00000	89.00000	1.000000	7.000000
Minimum	0.000000	1.000000	18.00000	0.000000	0.000000
Std. Dev.	0.448545	1.520592	16.59463	0.166307	0.512976
Skewness	-0.986371	-0.451340	0.414841	-5.672278	0.667871
Kurtosis	1.972928	3.365292	2.225969	33.17474	13.56665
Jarque-Bera	398.4065	76.37524	103.6971	83700.02	9136.515
Probability	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	1394.000	11020.00	80944.00	1878.000	1147.000
Sum Sq. Dev.	388.7046	4467.168	532037.7	53.43508	508.3952
Observations	1933	1933	1933	1933	1933

Appendix 6: E-view Result- Linear Probability Model (LPM) of Singapore

Dependent Variable: FS
Method: Least Squares
Date: 03/04/17 Time: 14:52
Sample: 1 1933
Included observations: 1933

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INC	0.077194	0.006398	12.06467	0.0000
AGE	0.002654	0.000592	4.479820	0.0000
SAVING	0.312236	0.058412	5.345383	0.0000
EMPLOY	-0.069366	0.019142	-3.623733	0.0003
C	-0.092256	0.072086	-1.279806	0.2008

R-squared	0.100499	Mean dependent var	0.721159
Adjusted R-squared	0.098633	S.D. dependent var	0.448545
S.E. of regression	0.425850	Akaike info criterion	1.133126
Sum squared resid	349.6400	Schwarz criterion	1.147526
Log likelihood	-1090.166	Hannan-Quinn criter.	1.138422
F-statistic	53.85287	Durbin-Watson stat	1.881430
Prob(F-statistic)	0.000000		

Appendix 7: E-view Result - Logit Model of Singapore

Dependent Variable: FS
Method: ML - Binary Logit (Quadratic hill climbing)
Date: 03/04/17 Time: 14:52
Sample: 1 1933
Included observations: 1933
Convergence achieved after 4 iterations
Covariance matrix computed using second derivatives

Variable	Coefficient	Std. Error	z-Statistic	Prob.
INC	0.409934	0.036558	11.21315	0.0000
AGE	0.015504	0.003396	4.564752	0.0000
SAVING	1.420637	0.296832	4.785993	0.0000
EMPLOY	-0.398854	0.106366	-3.749822	0.0002
C	-3.074620	0.388466	-7.914781	0.0000

McFadden R-squared	0.086107	Mean dependent var	0.721159
S.D. dependent var	0.448545	S.E. of regression	0.425056
Akaike info criterion	1.086958	Sum squared resid	348.3365
Schwarz criterion	1.101358	Log likelihood	-1045.545
Hannan-Quinn criter.	1.092254	Restr. log likelihood	-1144.057
LR statistic	197.0235	Avg. log likelihood	-0.540892
Prob(LR statistic)	0.000000		

Obs with Dep=0	539	Total obs	1933
Obs with Dep=1	1394		

Appendix 8: E-view Result: Probit Model of Singapore

Dependent Variable: FS
Method: ML - Binary Probit (Quadratic hill climbing)
Date: 03/04/17 Time: 14:53
Sample: 1 1933
Included observations: 1933
Convergence achieved after 4 iterations
Covariance matrix computed using second derivatives

Variable	Coefficient	Std. Error	z-Statistic	Prob.
INC	0.241498	0.021172	11.40624	0.0000
AGE	0.009029	0.001986	4.547074	0.0000
SAVING	0.864845	0.180045	4.803492	0.0000
EMPLOY	-0.230084	0.061901	-3.716954	0.0002
C	-1.821998	0.230008	-7.921450	0.0000

McFadden R-squared	0.085793	Mean dependent var	0.721159
S.D. dependent var	0.448545	S.E. of regression	0.425081
Akaike info criterion	1.087331	Sum squared resid	348.3776
Schwarz criterion	1.101730	Log likelihood	-1045.905
Hannan-Quinn criter.	1.092627	Restr. log likelihood	-1144.057
LR statistic	196.3030	Avg. log likelihood	-0.541079
Prob(LR statistic)	0.000000		

Obs with Dep=0	539	Total obs	1933
Obs with Dep=1	1394		