A Case Study on the Net Worth of Retirement Planning for a Malaysian Household

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Abstract

The purpose of this case study is to present a retirement plan based on the total net worth of an average Malaysian household. Adequate net worth is important to be able to make a long-term retirement plan during the retirement life. Few measurements are used such as present value of total retirement fund needed, future value of the resources and retirement gap. The results show sufficient net worth is essential to achieve a retirement planning. Secondly, the future value of current resources is greater than the lump sum retirees need for retirement life. The results also show financial assets should be accumulated before the retirement age to support long-term retirement life. The outcomes highlight the importance of a higher net worth that will benefit the retirees and working adults for retirement planning.

Keywords: Net worth, retirement planning, resources, retirement gap, retirement needs

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Introduction

Today, there is a popular trend where people pay more attention to the financial literacy of retirement plans. According to the Malaysian life expectancy research done by the Department of Statistic Malaysia (2016), a 65-year-old man has a life expectancy of 14.9 years while a 65-year-old woman has a life expectancy of 16.9 years. This is an increase of life expectancy from a study done in 2010 where the results were 14.3 years for a male and 16.1 years for a female respectively. As a result, the retirement life of Malaysians is longer than before. Therefore, it is advised that Malaysians plan their retirement life as the cost of living has also increased over the years.

Nowadays, a lot of Malaysians can easily obtain financial information, and at the same time see the prevalence of technological achievement. As Hasnol (2015) pointed out, an average Malaysian family will be able to effectively plan and accumulate their wealth if they have sufficient financial knowledge and financial literacy. Moreover, there is a high amount of financial products, investment plans and opportunities that are provided by financial institutions for Malaysians to effectively utilize for their retirement plan program (Tan, 2011). However, the main reason why Malaysians are not ready for a retirement plan is due to the lack of financial literacy.

According to Moorthy, et al. (2012), most of the younger generation assumes that a retirement plan can be a burdensome investment which they are unable to handle for long-term. Besides that, they also consider that it is too early for them to plan their retirement plans since there is no interest in financial planning as well as the investment of financial outcomes. In addition, most of the younger generation believes that there is a sufficient amount of the accumulated retirement fund in their Employee Provident Fund (EPF) to support their retirement life. Therefore, as a result, most retirees will only realize that the insufficient retirement fund could not match their retirement needs after they have retired (Moorthy, et al., 2012).

This research also finds that most Malaysians are still not aware about the importance of retirement planning. They always believe that their retirement life can be supported by their savings in the bank, the provident fund from the EPF as well as their children's financial support after their retirement (Dahlia et al., 2012; Mansor et al., 2015). Therefore, most Malaysians are not actively participating in the retirement plans. This may result in the fact that they will most likely experience a difficult life and even force them to continue working after retirement.

The objective of this study is to examine an average Malaysian household on financial literacy for their retirement plan. This study emphasized on the importance of financial knowledge to sufficient retirement resources after retirement. It is expected that the results of this study will help the society to improve on their understanding of the importance of retirement planning as well as increase financial knowledge level among Malaysians in the context of retirement planning. Finally, this study will also demonstrate the effectiveness of financial planning in household financial decisions and highlight how to use the financial resources during their retirement.

This paper consists of five parts. Firstly, the research background, problem statement and research objectives are introduced. Secondly, the theoretical framework and empirical will be discussed to support the research framework. Thirdly, the methodology and data collection methods of this study will be highlighted in detail. Fourthly, the data analysis and findings are discussed. Lastly, the conclusions and limitations of this study are discussed, as well as suggestions for future research.

Literature review

Financial Literacy

According to Azwadi (2013), financial literacy is defined as the extent to which an individual understands financial concepts and knowledge, as well as applies the knowledge to financial decision-making. Once individuals have sufficient financial literacy, they will be able to plan for their savings and achieve the financial independence for their retirement (Azwadi, 2013). Thomas and Philip (2014) also believe that financial literacy refers to a person that has adequate financial knowledge to plan and make good personal financial decisions. They are able to identify the problems, access the right information as well as analyze the information before making the correct financial decision. On the contrary, individuals who are only equipped with a lower level of financial literacy may face more financial problems such as bankruptcy. Therefore, it is safe to assume that financial literacy plays a significant role in both individual and business decision making process, and it seems to be necessary for our daily lives as our own personal and family's welfare can be affected, especially in the retirement life (Azwadi, 2013).

Financial literacy can be interchangeably utilized with financial education or financial knowledge. However, Caroline and Wesley (2016) indicate that financial literacy and financial knowledge are conceptually different. Huston (2010) elaborates that there are two dimensions of financial literacy. Firstly, individuals must have enough personal financial education or financial knowledge. Secondly, is the ability of an individual to manage their financial knowledge and apply it to make financial decisions. In this study, individuals who have sufficient financial knowledge are able to apply their knowledge to financial-related decisions in order to be perceived as a financial literate (Caroline & Wesley, 2016). According to the findings of Boneza and Monika (2015), individuals who possess several characteristics such as financial knowledge, the ability to convey the concept of financial management, personal financial ability, the ability to make appropriate financial decisions, as well as high confidence in financial planning for future financial needs such as retirement planning are considered as financially literate.

Retirement Planning

Retirement planning is perceived as a complicated process which requires a certain background of financial literacy (Sabri & Teo, 2014). Individuals, who are equipped with a high level of financial literacy, are always concerned about the importance of the retirement planning as well as planning for their future needs in advance.

However, if one is financially illiterate, they are more likely to overestimate their financial status, in which they believe that their current savings and pension funds can support their retirement needs thus the need for retirement planning is ignored (Sabri & Teo, 2014). As a result, people who are financial literate will be more confident and effective in their retirement planning than those who are financial illiterate.

Retirement refers to the employment stage where the individual is forced or allowed to leave the labor market (Rosle et. al., 2013). According to Finnish Centre for Pension report (2016), the global retirement age is expected to rise in the next ten years. For example, the retirement age in the United Kingdom will rise from 65 (2015) to 67 (2028), Canada will increase from 65 (2015) to 67 (2029), and USA will rise from 66 (2015) to 67 (2027). Similarly, the increase of the retirement age will also be evident in Malaysia (Rosle et al., 2013). The Department of Statistic Malaysia (2016) found that the average life expectancy of Malaysians increased from 72.2 years to 74.7 years from 2000 to 2016. Therefore, retirement planning plays a critical decision role among all the Malaysians because the life expectancy has increased tremendously. The continuous increase of medical cost (Rosle et al., 2013) could also prove to be detrimental to one's retirement life. Rosle et al. (2013) also suggests that early retirement plans are needed, especially in the financial phase of retirement, so that individuals can maintain a higher quality of life at the beginning of their retirement (Rosle et al., 2013).

Many researches have shown that financial literacy has a positive relationship with retirement planning (Taqudus et al., 2013), and they concluded that a person with higher financial knowledge level can perform accurate financial calculations, analyze risk factors, inflation as well as compounding effect at their retirement age (Taqudus et al., 2013). However, several important factors are excluded in past researches in the context of an average Malaysian household. Therefore, this research will fill this research void by examining the importance of financial literacy to retirement planning in the context of Malaysia.

Methodology

In this study, a case study of a working couple in Malaysia was used to access financial information. The description of the background study is made up of a married couple and a child. Husband ("M") is 38 years old, and is a financial manager. Wife ("F") is also 38 years old, and a part-time tuition teacher. "M" drives to work every day, and his work needs him to support the operations management of the United States and Europe division of the company. During the weekend, he spends his time being involved in outdoor activities with his family.

In the context of family health background, his mother is diagnosed with breast cancer, and his father is currently diagnosed with high blood pressure and diabetes and is on medication. He has undergone routine physical examination, and the latest physical examination showed that he is in a good state of health, except for mild diabetes and high blood pressure. This couple wants to retire at the age of 60 years old. They also have a financial goal in which they want to accumulate a retirement fund to support their retirement life.

The data collection tool was obtained from the Malaysia Financial Planning Council (MFPC). According to the collected financial information, annual expenditure is RM95,720 and RM48,500 respectively and the total assets value is RM500,000 and RM585,000 respectively. Based on past historical records and future development prospects, some key financial indicators and assumptions are provided, such as inflation rate and expected rate of return.

This study uses the inflation-adjusted interest rate, the future value of the expense and the present value of the total amount of retirement fund to determine the retirement gap.

$$FV_A = PV(1+i_1)^{n_1} \quad \text{---} \quad (1)$$

$$FV_E = PV(1+i_2)^{n_1} \quad \text{---} \quad (2)$$

$$i_3 = \left[\frac{(1+IRRRA)}{(1+IR)} - 1\right] \times 100 \quad \text{---} \quad (3)$$

$$PV_A = \frac{PMT}{i_3}\left[1 - \frac{1}{(1+i_3)^{n_2}}\right] \times (1+i_3) \quad \text{--} \quad (4)$$

Where:

FV_A refers to the value of an asset at a specific time in the future.

FV_E refers to the value of an expense at a specific time in the future.

PV refers to the value of an asset as of the date of current valuation.

n_1 refers to the number of period of compounding.

n_2 refers to the number of years for retirement.

i_1 refers to the interest rate to the value of an asset at a specific time in the future.

i_2 refers to the inflation rate to the value of an expense at a specific time in the future.

i_3 refers to the required rate of return after factoring the inflation rate and interest rate.

IRRRA is Investment rate of return at retirement age refers to the average rate of return from the investment activities during the retirement life.

IR is Inflation raterefers to the percentage of the prices for goods and services is rising.

PV_A refers to the present value of an annuity due.

PMT refers to the annual payment of retirement resources needed.

The design had considered about the current expenditure, taking into account the retirement needs, in order to have a more accurate estimate on the future expenditure model. The calculation of future annual expenditure was utilized as an intermediary of the present annuity payment formula to obtain the total assets needed to support the retirement life in the next 15 years.

Findings

This case was conducted to identify the retirement needs for future expenditures on the basis today's current cash outflow which was adjusted in order to effectively reflect the lifestyle after retirement. As shown in Table 1 and Table 2, the present value of future cash flow is RM38, 000 and RM24, 600.

$i_3 = 1.92$			
	PV		
	For age 38 (RM)	Changes	For age 60 (RM)
Cash Outflow	95,720	-57,720	38,000
FV at the age of 60 (RM)		Total Retirement resources needed (RM)	
90,060		1,186,512	

Table 1: The Total Retirement Resources needed for *"M"*

$i_3 = 1.92$			
	PV		
	For age 38 (RM)	Changes	For age 60 (RM)
Cash Outflow	48,500	-23,900	24,600
FV at the age of 60 (RM)		Total retirement resources needed (RM)	
58,300		768,084	

Table 2: The Total Retirement Resources Needed for *"F"*

Table 1 and 2 show that in order to maintain their retirement life, the total amount of retirement funds needed at 60 years is RM1, 954,596. However, it is crucial to examine how they are able to accumulate sufficient retirement funds for their retirement. Therefore, this study further examined the future financial status on the basis of the existing investment. The future value of the couple's total assets is RM1, 688,693 and RM3, 392,725 respectively.

Retirement Resources	*"M"* in RM (PV)	*"M"* Future Asset Value (RM) in age 60
Saving and Current account	130,000.00	130,000.00
Fixed Deposit	50,000.00	97,872.00
Equity	30,000.00	244,208.25
Bond Unit Trust	40,000.00	217,461.62
Employee Provident Fund (EPF)	250,000.00	999,151.58
Total	**500,000.00**	**1,688,693.00**

Table 3: The Future Asset Value of the Retirement Resources for *"M"*

Notes: All the unrealized future assets such as unearned EPF are not factored into this financial planning.

Retirement Resources	*"F"* in RM (PV)	*"F"* Future Asset Value (RM) in age 60
Saving and Current account	70,000.00	70,000.00
Fixed Deposit	20,000.00	39,149.00
Equity	15,000.00	122,104.12
EPF	180,000.00	719,389.14
Employee Provident Fund (EPF)	300,000.00	2,442,082.48
Total	**585,000.00**	**3,392,725.00**

Table 4: The Future Asset Value of the Retirement Resources for *"F"*

Notes: All the unrealized future assets such as unearned EPF are not factored into this financial planning.

Tables 3 and 4 showed that "M" is ready for retirement with a total asset of RM1, 688,693 in which his retirement needs exceed RM1, 186,512 at his 60 years old. In addition, his wife is ready to retire with a total of RM3, 392,725 at her retirement age, which is more than her 60-year-old retirement fund needs of RM768, 084.

Both of these couple has adequate assets to support their retirement. There is no retirement gap and in addition there is no extra intensive care needed to take care of their retirement. From the perspective of retirement plans, they can plan their own spending and savings, as well as achieve financial independence at their retirement age. Therefore, this research shows that both husband and wife are financial literate in which they can successfully and effectively handle their retirement plan. This is consistent with the findings of Thomas and Philip (Thomas and Philip, 2014), where financial literacy is defined as a person with sufficient financial knowledge for financial planning to make the strategic investment decisions.

Conclusion

Financial literacy is perceived and explained differently by researchers and scholars. Some researchers believe that the advancement of technological, continuous increased financial knowledge, as well as the availability of various financial products can promote the level of financial literacy in effective retirement planning. However, the awareness of retirement planning in Malaysia remains low, and most of them do not have capability to make effective financial-related decisions for retirement.

The findings of this research show that the Malaysian society is ready for retirement. The available asset value of the future turns to be higher than the retirement needs. It can be concluded that financial literacy plays a significant and irreplaceable role in retirement planning, which is to achieve their retirement goals at an earlier stage. Financial literate people should be able to recognize and evaluate the basic financial concepts such as risk diversification, interest and inflation, as well as the effect of interest compounding for saving.

There are also several limitations in this research. First of all, researchers should also investigate on nonprofessional and professional careers to distinguish the different financial literacy levels. Secondly, personal financial planning research should be extended to a broader dimension which should include investment planning, insurance planning, education planning, and estate planning. Thirdly, due to the financial status of the respondents may change over time; retirement planning should be reviewed from time to time. Therefore, a future research should be conducted to reflect the financial literacy towards retirement planning in Malaysia.

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