# FINAL REPORT

# (FRGS19 19-016-0624)

# TOPIC: Formulating an Islamic Health Protection Retirement Plan (i-HPRP) for Government Servants in Malaysia

**Principal Researcher:**
Assoc. Prof. Dr. Marhanum Che Mohd Salleh
Department of Finance
Kulliyyah of Economics and Management Sciences
International Islamic University Malaysia

**Co-Researchers:**
1. Assoc. Prof. Dr. Siti Salwani Razali (IIUM)
   Department of Business & Administration
   Kulliyyah of Economics and Management Sciences
   International Islamic University Malaysia
2. Prof. Dr. Salina Kassim (IIUM)
   Institute of Islamic Banking and Finance
   International Islamic University Malaysia
3. Prof. Dr. Nurdianawati Irwani Abdullah (IIUM)
   Department of Finance
   Kulliyyah of Economics and Management Sciences
   International Islamic University Malaysia
4. Dr. Nan Noorhidayu Megat Laksana (IIUM)
   Department of Fiqh and Usul al-Fiqh
   Kulliyyah of Islamic Revealed Knowledge and Human Sciences
   International Islamic University Malaysia
5. Dr. Nor Azizan Che Embi (IIUM)
   Department of Finance
   Kulliyyah of Economics and Management Sciences
   International Islamic University Malaysia

# TABLE OF CONTENT

# Executive Summary

Malaysia an official statistics suggests that the number of aging population (age group of 65 years old and above) would increase and is expected to grow double digit by the 2030s (Malaysian Department of Statistics; EPF Report 2015). This scenario implies that there should be enough effort and preparation done either by the government, scholars, or practitioners to offer special retirement scheme(s) that can enhance the pensioners' income as well as financial health preparation on top of the existing Employees Provident Fund (EPF). In view of this issue, this research aims to formulate an Islamic Health Protection Retirement Plan (i-HPRP) for Government Servants in Malaysia. Other objectives are; to investigate patterns of spending and saving among government pensioners before and during retirement period, to examine the preparation of the government servant towards retirement, and to explore the viability of introducing Islamic Health Protection Retirement Plan (i-HPRP) from the perspective of government servants. To achieve the said objectives, this research adopted a mixed-methodology approach based on structured survey questionnaires as well as interview as mediums of data collection. A total of 23 pensioners were selected conveniently in Klang Valley and it is found that majority of them did not plan or have a proper plan during their working periods. In terms of health condition, it is found that most of them having health issues over the ageing pattern, and they were agreed that having a *shariah*-compliant retirement income for health protection is necessary to reduce the financial burden during retirement period. In addition, the survey results indicate that majority of the government servants were in favorable to the proposed product due to its importance to comply with the Shariah. Accordingly, most of the government servant when they show their preferences towards I-HPRP, given three factors (saving, benefits, and commitment), they were actually concerned on their future planning. The findings can clearly demonstrate that the proposed model is quite marketable and able to satisfy the current employees future retirement needs. In other words, employees find it satisfactory and enable them to fulfil their retirement planning prospects.

# CHAPTER 1 - RESEARCH BACKGROUND

When we are at a young age, it is extremely challenging to think about retirement planning. Young people are busy starting careers, families, or settling in new locations, so it is understandable that they have the reluctance to discuss retirement planning this early in life. One of our goals in life should be retiring with financial freedom and security through a financially comfortable and stress-free lifestyle. Retirement planning is the crucial task for this goal, as it decides how we will live once we are old and no longer wish or are unable to work. It involves the consideration of a number of factors like at what age we hope to retire, how much money we will need to cover the living expenses and other plans after retirement.

Our behaviour toward retirement planning is intrinsically influenced by our attitude, knowledge, and information surround us. Attitudes include how we take responsibility and tolerate risks financially. If we tend to take financial responsibilities for our future, we may be more likely to engage in retirement planning. Young people, though, are often inclined to be present-oriented, rather than future-oriented, with uncertain knowledge and information needed for retirement. For the full investment in retirement planning, we as a young individual need to acquire knowledge of financial literacy and numeracy.

There are many challenges in the human life cycle even an expert might not be helped in such circumstances. The life of a retiree is not fixed individually, some live longer whereas others life shorter than the expectation. In reality, the retiree plans for an expected period of retirement expenditure with savings but in the retirement period, there might be some unplanned events which reduced the funds significantly. This may lead to the need to cut down the living standards which bring several difficulties in retirement life such as lack of funds for health care or other events. The lifetime of a person is uncertain, and the longevity has increased over the period due to rapid improvements on medical treatment, health consciousness and the education level (Baird, 2016; Rappaport, 2017).

The rapid changes of economic and technological endeavours in the world initiate the policy makers, investors, businesspeople, and services providers to update, develop, and change the existing pattern of various industry, product segmentation, design, and services. In order to balance the movement of this transformation of economic pattern, the retirement plan is also moving from 'distinct benefit' to 'distinct offerings' for both public and private employment (Poterba, Venti, & Wise, 2009). Distinct benefit generally provides the distinguished outcome that followed by the basic formula that consider the duration of employment (Alaudin, Ismail, & Isa, 2017) and the wage history and the distinct offerings refers the specified amount put into employee's retirement account, then the authorized body determine the savings and the investment of the amount deposited in the purpose of retirement plan which can be invested by the employer or government in order to generates more benefit (Benartzi & Thaler, 2007).

This research is conducted based on the following motivations;
Malaysia will become ageing population country by 2030 (Bernama, 2015). It is informed by the Institute of Islamic Understanding Malaysia (IKIM) director-general Datuk Nik Mustapha Nik Hassan (during the opening speech for a roundtable discussion on the seminar "Realities of an Ageing Society: Causes and Challenges in Malaysia" at the Dewan Besar IKIM) that a country would achieve the status of an aging nation when 15% of its population consisted of those aged 60 years and above. He further mentioned that the UN (United Nations) have projected that Malaysia will achieve the status of ageing country by 2030 (please refer to Figure 1 below). Among the factors that were identified contribute to the increase in the number of senior citizens in the country were the decline in fertility rates which relatively reduced the number of young people (Nik Mustafa, 2015). Hence, there would be changes in the demographic structure when an increasing number of ageing populations is not balanced with adults and the young, thus cause various challenges to the social and economic environment of a country.
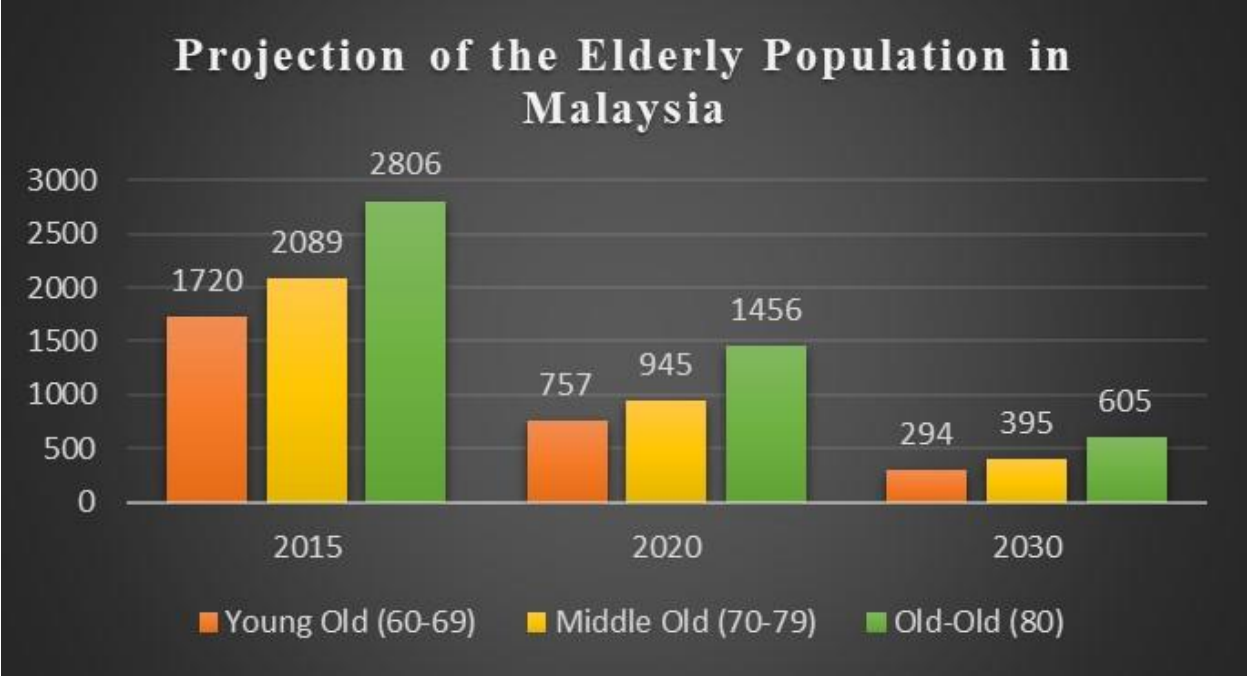
Figure 1: Projection of the Elderly Population in Malaysia

Source: EPF 2015 Report

A report issued by the UN Development Programme (UNDP) stated that 90% of the contributors towards the Employees Provident Fund (EPF) in Malaysia did not even have enough money to live a simple lifestyle for a period of five years after retirement. This is supported by the EPF Report 2015 that more than half of the Malaysian have no financial assets (financial asset is an intangible asset where value is derived from a contractual claim, such as bank deposits, bonds and stocks). Therefore, start saving at a young age and learn to manage financial matters is very important to prepare the retirement period. In addition, the 4th Malaysian Population and Family Study by the National Population and Family Development Board which was matched with the result of the population and housing census in 2010 found that about 23%, or 538,000 of the 2.4 million senior citizens in Malaysia suffered from the 'empty nest' syndrome. These number is believed will increase in case of no awareness and preparation done by the Malaysian household.

Increasing strain is exerted on government budget: with Malaysia being categorised as ageing population by 2030, and no proper preparation is made to cater for the increasing demand for health coverage for majority of the population, the pressure for national spending on health services for the pensioners will affect government spending. Long term strategy to prepare for these expenses is needed from now on by including the corporate sector to participate through the corporate welfare concept.

This research is conducted mainly to formulate an Islamic Health Protection Retirement Plan (i-HPRP) for Government Servants in Malaysia.

In details, other objectives are;

i. To investigate patterns of spending and saving among government servant before and during retirement period

ii. To examine the preparation of the government servant towards health expenses during retirement period

iii. To explore the viability of introducing Islamic Health Protection Retirement Plan (i-HPRP) from the perspective of industry players

# CHAPTER 2 - LITERATURE REVIEW

## 2.0 Introduction

Like other countries, Malaysia faces problems of an ageing population and the erosion of extended families. Demographic changes related to the increase in the ageing population will definitely put pressure on the retirement systems in Malaysia. This imposes higher risk in the task of ensuring an adequate income for older people. Traditional ways of support from family are no longer a reliable source of care for the elderly in Malaysia. Currently, the public pension scheme is based on the principle of Pay-As-You-Go (PAYG) financing and thus offers by SOCSO will not be accessible to everybody especially to the civil servants. All of these issues could lead to the incidence of poverty. Despite imposing mandatory retirement savings on all Malaysian employees either via EPF or PENSION schemes, the government will have to act quickly to meet these challenges.

Retirement plans may be set up by employers, insurance companies, the government or other institutions such as employer associations or trade unions. Reforming any pension system in any country is not an easy task. The pressure of an ageing population means that the government needs to rebalance the retirement income provision in ensuring the adequacy and the sustainability of the system. It definitely involves a long-term policy under the situation of uncertainties. Meanwhile, the experiences and examples of good practices from other countries can benefit the policy makers in seeking to reform their own pension systems accordingly.
Takaful Annuity Experience in Malaysia

There is a variety of social protection systems in Malaysia (Asher, 1994; Croissont 2004). The Public Service Department (2011) and Wong (2006) described the formal social protection system in Malaysia as including the Employees Provident Fund (EPF), the public-pension scheme offered only to civil servants (known as PENSION), the armed forces superannuation fund and

Social Security Organisation (SOCSO). The EPF and the PENSION schemes are the two main retirement plans for old age in Malaysia, while SOCSO provides protection on disability.

The Malaysian retirement system is dominated by the government. This reinforces the notion that the government indeed plays a significant role in Malaysian retirement systems. Ramesh (2002) indicated that in the Southeast Asia region, Malaysia is the largest spender on social security as a percentage of its Gross Domestic Product (GDP). It is compulsory for private employees in Malaysia to sign up for an EPF account but the civil servants have the option to choose the government pension besides the EPF option. The self-employed or unemployed individuals could also enrol in EPF on a voluntary basis. However, due to the lack of data about these informal sectors, it is not possible to assess the extent of protections available for them (Sim, 2002).

Historically, a number of studies presented supporting evidence that the retirement schemes in Malaysia were inherited from its colonial past which including British. Linderman (2002) presented evidence that in Asia, while dismantling their empire in the 1950s, the British left behind their pension legacy consisting of two elements. One was a budget-supported conventional DB pension scheme for the government workers, and the other one was a provident fund for those in the industrial and urban formal sector. Similarly, Beattie (2000) also claimed that in Asia and the Pacific, countries formerly under British colonies would generally have provident fund schemes while the others have social insurance pension schemes. Malaysia has introduced a dual system of social security for its workforce. Civil servants are mostly covered by the Pension scheme while private sector employees are covered solely by the EPF. However, civil servants are also permitted to choose EPF instead of the Pension scheme.

Besides EPF and Pension schemes, voluntary retirement can become among the financial sources for retirement. It is a private pension similar to the commercial/personal/voluntary retirement scheme. It is referred to as additional retirement plans or personal savings set-up by individuals voluntarily, aimed as a means for retirement income later. It is beyond the employer-provided retirement plans. This includes purchases of private annuities and life insurance policies offered by private insurance or Takaful companies. Alternatively, personal savings could be in the form of bank savings accounts, and ownership of real estate or investment assets.

Accordingly, Takaful annuity scheme was introduced in 2000 as part of the State Provident Fund (the EPF) efforts to allow its members to diversify their investment. In particular, the EPF

was concerned with the trend of utilisation of funds (a lump sum was paid at age 55) by pensioners where it was found that 70% of their pensioners spend the entire savings within 10 years of retirement. So the annuity option was a natural choice to mitigate the risk of outliving one's savings and participating members can expect retirement income for life.

Konsortium Anuiti Malaysia comprising 6 conventional insurers and 2 takaful operators were approved by the EPF and the insurance regulator to offer this annuity. Eight to nine months doing which the product was sold, over RM4 billion was collected from over 200,000 (conventional included) EPF members despite negative press about these products. However, despite the success the sale of the annuity product was cancelled 18 months from its introduction.

What Factors Contributed to its Success

Painless to members as the money was paid directly from their EPF accounts, so no immediate financial impact. A commission was paid to agents (commission was 2% to 3.5% with an average premium size of RM20000 and over 30,000 agents were involved). Many EPF members see that the product was a good deal for them as the press coverage (albeit negative) helped increase the public awareness. The scheme was initially endorsed by the EPF and hence the Government but was later cancelled due to pressures from the trade unions. The concern of the Trade Union was more on the conventional version of the product.

Investment returns from the annuity fund was exempted from tax. Many stories emanated from agents as to why the annuity was a success. Among them, working wives bought them for themselves to ensure that their husband would not be tempted by the cash lump sum when the wife retires. Members near retirement bought them so as to prevent their children from borrowing these moneys when they retire. Surprisingly, people were in fact ready to surrender the flexibility of cash for the certainty of a regular income. Over 50% of the purchasers of the product were below the age of 35. Only a few actually bought the product at age 55.

What were the objections made against the annuity scheme?

i) That insurance company was profiting excessively from this product. The argument follows that the annuity scheme should not be given to the private sector to run but should be run by the EPF itself.

ii) That it represents 'a bad deal' to the EPF members. Members can lose their capital.

iii) That some insurance agents were misselling the product.

This area has not been explored much in Malaysia and more specific research in such fields including health insurance issues is rather lacking (Bakar et al., 2006). For example, Yakob and Isa (2000) explained the demand for life insurance in Malaysia by focusing more on the macroeconomic factors rather than individual characteristics. They found that personal savings and short term interest rates have a significant negative relationship with the demand for life insurance while the GDP and income tax relief have significant positive relationships with the amount of life insurance purchased. Manab et al. (2004) conducted a study to determine the awareness and the factors that affect the ownership of Islamic life insurance products called "Takaful". They found no significant relationship between demographic factors such as age, gender, number of children, level of education, income and occupation with the ownership of Takaful products. Additionally, no study that reveals the level of awareness perceived by public and private servants on commercial retirement schemes appears to exist.

## 2.1 Ageing and Economic Growth

Along with less fertility rate, a lower mortality rate and higher life expectancy sharply contribute to the growth of ageing population (Yong & Saito, 2012). Similarly, the growth of ageing population contributes to the slower economic growth. Henceforth, ageing population affects the growth of economy  (Lee & Mason, 2017; Mason & Lee, 2013; Nagarajan et al., 2016) in several ways. For instance; upsurges public expenditures (Aigner-walder & Döring, 2012; Lee & Mason, 2017; Mason & Lee, 2013; Morgan & Long, 2019; Nagarajan et al., 2016; Thiébaut et al., 2013; Yong & Saito, 2012), consumption and saving patterns (Aigner-walder & Döring, 2012; Lee & Mason, 2017; Mason & Lee, 2013; Nagarajan et al., 2016), human capital and productivity (Aigner-walder & Döring, 2012; Lee & Mason, 2017; Mason & Lee, 2013; Nagarajan et al., 2016). Furthermore, the growth of ageing population aids to reduce the portion of tax income to the GDP of the country (Bettendorf et al 2011), a decline in youth workforce will lead in GDP volatility (Garau et al., 2013; Lugauer, 2012), and financial instability for banking industry (Imam, 2013).

Subsequently, the trend of growing ageing population has bouncing the dependency ratio over the years, pointing the stress over economic situation of region (Ezrati, 2018). And, this trend requires larger young working population to support ageing populations' demand for goods and

services (Ezrati, 2018; Pettinger, 2019; Yakupitiyage, 2018). Thus, it will definitely become a burden for young workforce as well as government (Pettinger, 2019). Shockingly, an ageing population may aggravate inequality through enhancing reliance on private sector savings and those on national pension scheme (Pettinger, 2019). Likewise, public pensioners and private pensioner, private sector contribute on retirement scheme that enhance savings for nation whereby public sector only rely on funded pension scheme.

Vibrantly, public finance will be exacerbated due to growing demand on public and private pension schemes along with health service needs (Ezrati, 2018; Pettinger, 2019). As, an ageing population enhances the demand for health services (Mérette & Georges, 2009; Thiébaut et al., 2013). So, medical inflation will be highly noticeable due to high demand. Idiosyncratically, ageing population, with rising health expenditures also contribute to the growth of public expenditures. despite larger demand for health services, the relative costs will be higher as older people needs continuous, complex and costly treatment for typical chronic diseases (Ferreira, 2016). As evident, Thiébaut et al. (2013) have stated that drug and health care expenditures will gradually increase with the growth of ageing population in France. Likewise, with an increase in life expectancy, households' health expenses will expanded and decline savings (Nagarajan et al., 2016). So, the economic growth will be slowed down by reducing available savings for productive investment (Lisenkova et al., 2013; Nagarajan et al., 2016; Pettinger, 2019).

Undeniably, the growth of ageing population has negative impact on economic growth in developed countries (Aigner-walder & Döring, 2012; Ewijk & Volkerink, 2012; Hurd & Rohwedder, 2013; Lisenkova et al., 2013; Thiébaut et al., 2013). Likewise, Asian economic growth negatively impacted, with increasing governments' expenditure, affecting workforce participation, tax revenue and decline in the productivity (Dhaliwal, 2016; Ferreira, 2016; Nagarajan et al., 2016). Equally, the growth of ageing population would experience pressure on economic growth, impacting productivity, workforce participation and savings rate in Malaysia (Star, 2018). Unlikely, several studies found positive relationship between the growth of ageing population and economic growth, such as; (Kopecky, 2011; Mason & Lee, 2013). Supportively, the growth of ageing population enhance aggregate savings that increase the demand for innovation, turn to higher employment in R&D sector, advanced technology and higher economic growth in long term (Baldanzi et al., 2018; Prettner, 2013), whereas R&D consider as an engine for economic growth (Aghion & Howitt, 1992). Summarizing the above discussions persuade the

consequences of ageing population in economy, affecting workforce participation, tax-revenue, public expenditures.

## 2.2 Saving and Spending behaviour

People save too small for retirement (Lusardi, 1999), spend more (Sotiropoulos & d'Astous, 2013), purchase things and regret later. Accordingly, they do not make bills-payment timely (Abendroth & Diehl, 2006), thus make terrific financial decisions (Strömbäck et al., 2017). Nonetheless, individuals do not always make terrific financial decisions as some of them are more or less inclined to make bad financial decisions (Strömbäck et al., 2017). Saving is an instant expense with possible advantages in the future, while consumption allows the instant satisfaction of an individual's needs (Barboza, 2018). Therefore, positive saving behaviour forecasts better individual wellbeing (Shim et al., 2012). Saving attitude for retirement influence to prefer social models (Croy et al., 2010), and money management determine the perceived retirement model (Cude et al., 2006). However, unforeseen household expenses incurred against liquid savings can be held as insurance (Gathergood & Weber, 2014).

Meanwhile, spending behaviour is mainly adopted from individuals' current-biased preferences, and they behave differently than future-oriented individuals who have a healthy saving attitude related to retirement planning (Brown & Previtero, 2015). Idiosyncratically, impulsive spending behaviour grounds various risks related to income shocks, unanticipated expenditures on durables (Gathergood, 2012). Followingly, such spending behaviour pledge to save later, less likely to hold a fixed amount every month, thus less likely to participate in retirement plans (Brown & Previtero, 2015). Indeed, individuals with impulsive spending behaviour suffer from financial problems over time (Gamst-Klaussen et al., 2019). More so, individuals who have higher tendencies in spending and impulse buying behaviour suffer from financial worries (Gardarsdóttir & Dittmar, 2012).

An individual can associate spending behaviour with shops or online shopping using debit/credit card or other online payment accounts; in the meantime, saving or investment products not available during impulse spending (Gathergood & Weber, 2014). In other words, individuals do not care about any saving or investment retirement products during their impulsiveness

spending, thus less likely to participate in a retirement plan. Researchers identified the negative relationship between spending behaviour (self-control problems) and financial products (accumulation of wealth) among individuals (Ameriks et al., 2007). Lack of self-control or impatience treated as behavioural biases among individuals (Gathergood, 2012), which was denoted as "intrapersonal decision time-inconsistency problem", a skirmish between manifold selves (Thaler & Shefrin, 1981). This study treated this uncontrolled or lack of self-control as individual spending behaviour. Past studies evidenced both significant and insignificant influence of saving behaviour towards retirement planning in the Malaysian context. For instances, Afthanorhan et al. (2020), Hassan et al. (2016), and Kadir et al. (2020) acknowledged a significant positive impact, while Moorthy et al. (2012) and Ibrahim et al. (2012) showed insignificantly poor saving behaviour among Malaysians. On the other side, Haron et al. (2019) and Kimiyagahlam et al. (2019) stated saving behaviour towards retirement planning as a new concept for Malaysian. These findings exhibit inconsistent and unstable prediction of the influence of saving behaviour. Simultaneously, a scarce study was conducted on spending behaviour on a retirement plan and retirement planning behaviour preference.

## 2.3 Proposed Islamic Health Protection Retirement Plan (i-HPRP)

The life span theory enables humans to think over the future by expecting a better life without stress and financial disturbance. Notwithstanding, individuals prefer to plan for retirement through employers' contribution (Butt et al., 2018) due to loyalty and dedication towards the corporation. Nonetheless, several things are demanded by the employee in their retirement life, such as; food, medical services and housing (Worsley et al., 2011). Besides, cultural norms, rituals and living standards (Alaudin et al., 2016), values and perceptions (Gupta & Pradhan, 2017; Hershey et al., 2007), perspectives, race/ethnic, religious aspects, investment (Angel et al., 2014), and individuals' characteristics and preferences of employees (Butt et al., 2018) significantly affect the retirement plan. Indeed, Malaysia has demonstrated a significant part of the global Islamic finance market (ICD-Refinitiv, 2020). So, an effective retirement plan that considers cultural practices, economic behaviour and retirement demands and necessities.

Meanwhile, providing the information and direction on saving for long-term investment may not be enough (Hardcastle, 2012) as individuals' saving behaviour relies on income and exchange effects in response to a new policy or scheme (Hardcastle, 2012). Further, life-cycle consumption

entails a "consumption smoothing", whereby an individual should continue the consumption route in time (Hurd & Rohwedder, 2013). A rearrangement of consumption will increase lifetime utility if the path of consumption is not continuous (Hurd & Rohwedder, 2013). Meanwhile, Islamic banking and finance were unable to fulfil the needs for investment products, retirement plan products, and travelling needs products (Yumna, 2019). Constantly, a reliable, executable and beneficial model should be available to attract consumers for retirement. As these consequences, this study demonstrated an Islamic health protection retirement plan (i-HPRP) by considering the social practices and retirement features.

This study followed a similar approach to Lusardi et al. (2009), who designed planning support to simplify the retirement decision and encourage employees to make an active involvement. The designed planning support included several features; it breaks down the participation steps and required steps to participate online. Further, it provided other information such as savings, minimum amount of income as contribution, life cycle fund, and designed messages and pictures to encourage participants to save. During the working period, both employees and employers' contribution is demonstrated the accumulated savings and investment income separated to manage both retirement income and medical expenses upon designated retirement period. A special feature of this plan is that it is an Islamic-based retirement plan where its operation and framework would comply with the Islamic rule (Shariah). It is basically a retirement plan attach with the existing Takaful scheme offered by Takaful operators where all the operations are Shariah compliant. As Takaful based on Tabarru' (mutual donation) and Taawun (mutual assistance) principles, the proposed plan will be done using the same spirit. As an Islamic retirement product, the aim is not only to attain the worldy benefits, but the most important objective is to achieve rewards in the hereafter by take care of life, family, and property (financial) as encouraged by Islam. These three elements basically were the objective of Shariah (Islamic Law).

# CHAPTER 3 - METHODOLOGY

## 3.0 Introduction

The research achieves the objectives by using a mixed-methodology approach. Basically, the data are collected in two phases of the research. The first phase is through semi-structured interview with Government pensioners while the second phase is through questionnaires that target government servant. The objectives set in this study are:

i. To investigate patterns of spending and saving among government servant before and during retirement period

ii. To examine the preparation of the government servant towards health expenses during retirement period

iii. To explore the viability of introducing Islamic Health Protection Retirement Plan (i-HPRP) from the perspective of industry players

## 3.1 Stage One: Interview with Government Pensioners

This is a qualitative part of this research where the data is collected using interview approach. A series of semi-structured interviews is conducted among government pensioners. It is similar with several studies on retirement, for instances; Weiss (2018) have adopted repeated interviews on 89 pre-pensioners and pensioners those middle income groups with various occupational experiences in order to gather considerations of retirement planning, reason for retirement and the experiences during retirement period in Boston, USA; Jonsson et al. (2001) employed qualitative study through interviewing 12 Swedish pensioners, inclined the involving occupation, (for example, part time work, leisure related activities, caring for grandchildren) as component of retirement satisfaction; another study interviewed 48 Canadian retired executives in order to identify the communal ways toward retirement planning and the reasons for retirement decision (Vough et al., 2015).

A total of 23 government pensioners have involved in the interview (N=23). Purposive sampling technique was chosen to specify a sample of government pensioners required by the

research objective. Prior the interview, a set of interview questions is structured and validated by experts from academic as well as industry (six academic researchers in the field of finance, insurance and *takaful* experts).

Final set of interview questions were as follow;

1. Background of pensioners (age, status, kids, retirement years, last position, monthly income before retire, current income, sources of current income, availability of health insurance)

2. Retirement preparation**:**

   a. How do you plan for your retirement? Is it well planned? Or Unplanned? Can you share?

   b. Did you make a mistake or regret your retirement planning?

   c. Do you make any preparation towards health expenses during retirement?

   d. Do you have contingency planning for any emergency during retirement?

3. Retirement life:

   a. How is your expenditure before and after retirement?

   b. What are the basic expenses that you incur now?

   c. What are the additional expenses that you incur now?

   d. Is your income sufficient to cover your basic and additional expenses?

   e. Do you still spend for your dependents? (children school fee etc)

   f. Do you believe you retired too early or too late and, if so, why?

   g. Can you explain your daily activities during retirement?

4. Health conditions:

   a. Do you encounter any health issues?

   b. How much of your income is spent for your health expenses?

   c. Do your income enough to pay all the expenses related to health (Medical cost)

   d. Have you had any problems getting health care with govt hospitals? If so, what were they?

   e. Do you think it is necessary to have a Takaful/protection plan for retirement? For health expenses as well as saving for income. Why and explain.

In addition, the interview sessions were audio recorded and transcribed directly by the research officer. The transcribed data were read several times and coded into several themes such as

(retirement preparation, retirement life, health condition and recommendations). Finally, analysis was done through coding analysis based on the responses received.

## 3.2 Stage Two: Survey with Government Servants

For the quantitative part, data is collected through surveys on Malaysian generally (public and private employees) located in all states. In detail, a convenient sampling method is chosen to select respondents of this research. After removal of outliers, a total of 498 data were chosen for analysis. Out of 498 survey respondents, 239 are government servant. Measurement of this study was adapted from past studies, with little contextual modification to fit the context of the study. Few statistical analyses were conducted to achieve the research objectives which include descriptive and PLS-SEM using SmartPLS version 3.0 statistical software. Overall, based on literature, five variables were selected in this research to be included in a conceptual framework (please refer **Figure 2 below**) which were saving behavior, perceived benefits, commitment, retirement preparation and i-HPRP preferences. This study has employed multivariate analysis using Partial least squares structural equation modeling (PLS-SEM) to achieve its objectives.
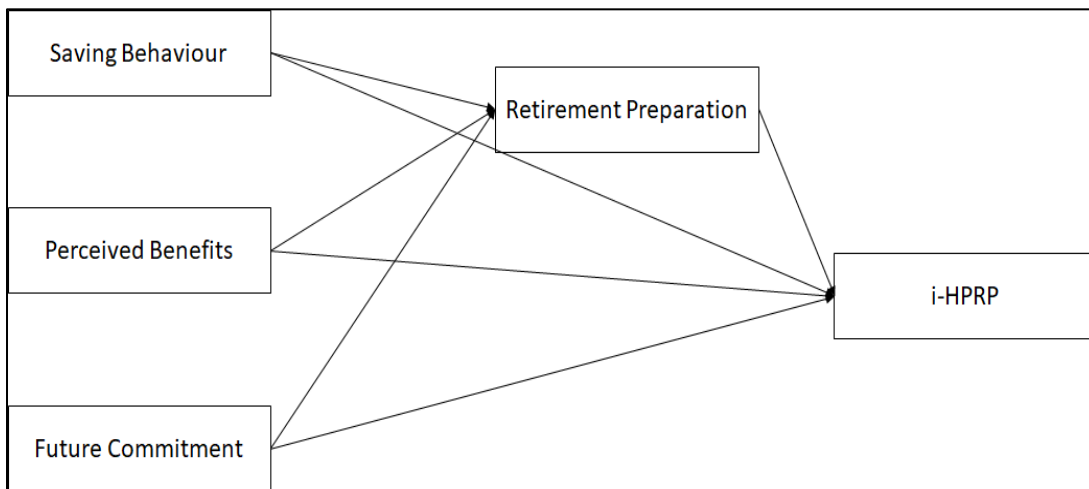


Figure 2: Conceptual Framework

Figure 3 highlights the coverage period of the proposed retirement plan. The survey explores the viability of introducing Islamic Health Protection Retirement Plan (i-HPRP) from the perspective of government servant. Please refer to Figure 4.
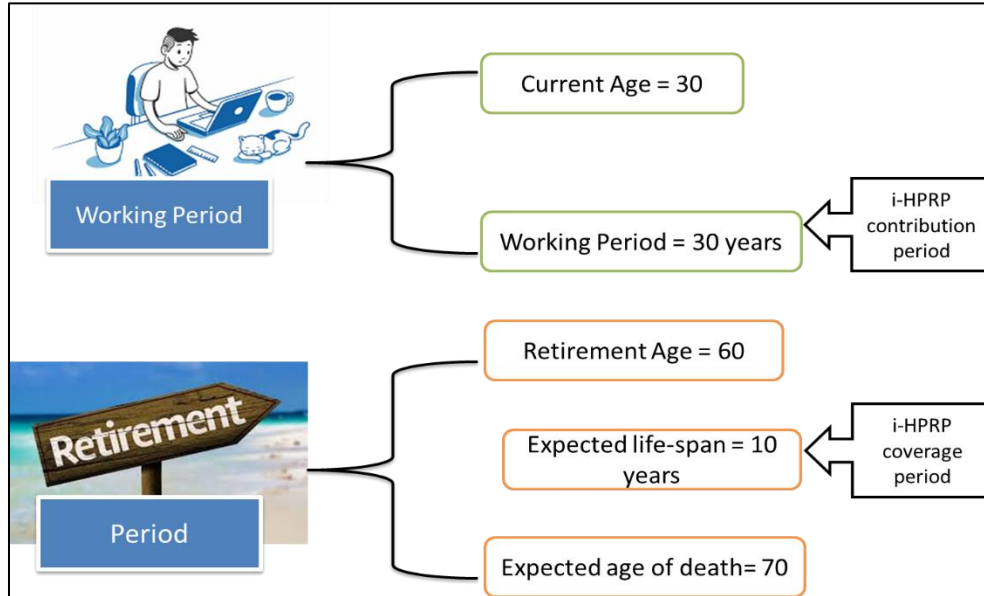


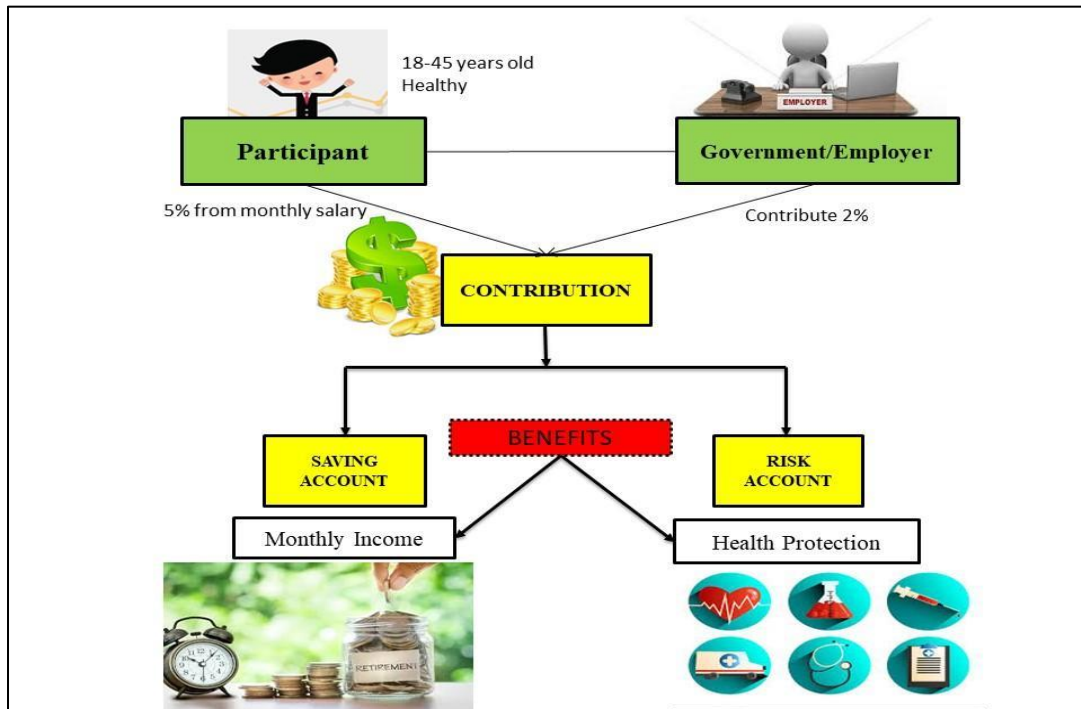Figure 3: Contribution and Coverage Period of i-HPRP



Figure 4: Proposed i-HPRP

**3.3 Related Theory**

1. Life-Cycle Theory

Life-Cycle Theory is an economic theory that pertains to the spending and saving habits of people over the course of a lifetime. Life-cycle theory makes its first appearance in two papers that Modigliani wrote in the early 1950s with a graduate student, Richard Brumberg, Modigliani and Brumberg (1954) and Modigliani and Brumberg (1980). The original theory offers a specific account of consumption and saving, but it is derived from fundamental underlying principles that could be used to extend the model to deal with a wide range of issues about consumption and saving, many of which had not been thought about in 1950.

Modigliani's life-cycle theory is a fine piece of theory, supported by many years of empirical work, both by supporters and detractors. But it is more than that. It is life-cycle theory that helps us think about a host of important policy questions about which we would otherwise have very little to say. One of the most hotly debated issues today, in many countries, is how societies should collectively make provision for the increasing numbers of elderly. How does government provision interact with private provision? Is a state pension a substitute for private retirement saving and, if so, to what extent? How do changes in retirement behavior affect the economy? Do social security systems affect the age at which people retire, and with it, the amount of wealth in the economy?

Accordingly, Modigliani and Brumberg's original formulation recognized that life-cycle planning requires people to look into an uncertain future, and that it is difficult to formulate theoretically satisfactory and tractable models of how people behave in the face of uncertainty. This research thus, will concern on how the government pensioners plan their previous spending and saving as well as prepare for any uncertainties for the retirement period. In addition, based on the above theory, this research will also look into the preparation of the pensioners towards health expenses during retirement age.

# CHAPTER 4 - DATA ANALYSIS AND FINDINGS

## 4.0 Introduction

This part discusses analysis for both approaches of data collection which are interview and structured survey. Process and findings from the analyses is also discussed in this chapter.

## 4.1 Analysis of Interview Data

The analysis is made within five broad sections indexed by relevant interview questions, namely background of respondents, retirement preparation, retirement life, health condition and recommendation. Final set of interview questions were as follow;

5.  Background of pensioners (age, status, kids, retirement years, last position, monthly income before retire, current income, sources of current income, availability of health insurance)

6.  Retirement preparation:
    a.  How do you plan for your retirement? Is it well planned? Or Unplanned? Can you share?
    b.  Did you make a mistake or regret your retirement planning?
    c.  Do you make any preparation towards health expenses during retirement?
    d.  Do you have contingency planning for any emergency during retirement?

7.  Retirement life:
    a.  How is your expenditure before and after retirement?
    b.  What are the basic expenses that you incur now?
    c.  What are the additional expenses that you incur now?
    d.  Is your income sufficient to cover your basic and additional expenses?
    e.  Do you still spend for your dependents? (children school fee etc)
    f.  Do you believe you retired too early or too late and, if so, why?
    g.  Can you explain your daily activities during retirement?

8.  Health conditions:
    a.  Do you encounter any health issues?
    b.  How much of your income is spent for your health expenses?
    c.  Do your income enough to pay all the expenses related to health (Medical cost)

d. Have you had any problems getting health care with govt hospitals? If so, what were they?

e. Do you think it is necessary to have a Takaful/protection plan for retirement? For health expenses as well as saving for income. Why and explain.

A total of 23 pensioners were selected conveniently in Klang Valley. For background of the respondents, their age range is between 63-67 years and the average age is 67.5 years. A total of four main themes emerged from the interview data resulting from thematic analysis; retirement preparation, retirement experiences, health conditions and suggestions for Islamic health protection. Ultimately, this qualitative approach's findings helped the researcher designing an Islamic health protection retirement plan. The major themes were expounded, whereby interview quotations included in the description of each theme. The following sections presented findings in separate sub-sections.

### 4.1.1 Retirement Preparation

Overall, majority of respondents stated that they did not plan/ or have a proper plan during their working periods. Respondent 2 informed,

*"No, I only depend on my savings from small business".*

Respondent 8 informed,

*"No, I depend on my husband pension and assistance from children only".*

Similarly, respondent 15 reported,

*"I was not prepared earlier and was just relying on my husband to plan our older age financial matter".*

However, several respondents admitted that they planned earlier for retirement.

Respondent 1 informed,

*"Yes, I planned ten years before retirement, invested in property in my hometown, and I also have EPF savings".*

Respondent 17 reported,

*"I consider it as well planned because I started my own savings quite early".*

Respondent 23 informed,

> *"I had planned it when I joined in the university. I was working in the school while I was under a pension scheme but moving to university, I immediately shifted to EPF and started to save. I would say I have not planned so well but not so bad".*

From the above findings, it can be concluded that some of the respondents have planned well for retirement while majority of them did not manage to plan for retirement. Several respondents further planned earlier and invested individually. Idiosyncratically, almost all public pensioners depended on the public pension, including their spouses, and did not prepare individually. Respondent 11 and 12 both informed,

> *'I do not have a proper plan".*

Respondent 4 reported,

> *"I only depend on pension".*

Only two respondents who retired from public service have savings and investment as preparation for retirement besides pension scheme. Therefore, it expounded that public pensioners depend on the government pension system, designed as a defined benefit. Also, some rely on the spouse's pension income during retirement.

Respondents who were retired from the business have not planned earlier for their retirement. Even they mentioned that they relied on business and a small portion of savings.

Respondent 18 and 19 informed,

> *"I do not have any plan for retirement".*

Respondent 5 reported that

> *"I depend on my children".*

On the other hand, most private-sector respondents have a basic plan or savings for their retirement. Respondent 13 informed,

> *"Yes, the EPF as well as my investment in properties".*

Respondent 3 said, "*Yes, I have some basic plan*".

Overall, the response proved that financial literacy, adequate plan and emergency savings vehicles on future uncertainties unavailable among pensioners. Respondents from the public sector showed over-dependency on the public pension system.

**4.1.2 Retirement life**

Having a retirement preparation or planning leads to a positive result among pensioners (Noone et al., 2009). Further, pensioners are likely to rate their retirement period as better than expected (Yeung & Zhou, 2017). However, individuals start to suffer substantial challenges in diverse life brought by age (Kim-Knauss, Lang, Rohr, & Fung, 2020). So, this theme is to explore the retirement life, satisfaction, challenges and feelings of pensioners. Most of the respondents mentioned that their monthly expenses are lesser than the working period as they are free from loan repayment. Further, due to lower-income and fewer dependents (children are grown up and living their own), their living cost is minimised.

Respondent 21 (public) informed,

> *"less than before as all of the loans were settled during my working period".*

Respondent 11 (public) stated that his expenses are less than the working period. However, his concern is over inflation that increasing the cost of living, ultimately pressing trouble in managing the standard of living. He informed, "*Expenditure is less after retirement, but the cost of living is very high as compared to the previous time. This gives a lot of trouble*". Both pensioners from the semi-public sector assessed to have less expenditure during the retirement period due to settlement of all loan repayment. Respondent 22 informed,

> *"As I don't have any loan repayment, not many committed expenditures, so the expenditure is less than before".*

However, most respondents from the private and business sectors stated that they have less expenditure than working life. Notably, it is quantified that living expenses are lesser during the retirement period than the working period as they have a less monthly income. This notion predicts reinforcement learning theory. According to this theory, individuals' personal experiences significantly affect their behaviours than just understanding the confident phenomenon and without individual participation. Menacingly, Malaysian pensioners learned to minimise cost based on their income and consequences.

All respondents stated basic expenditure incurred over food and utilities whereby several respondents include medical as part of basic expenses. Respondent 2, 3, 4, 9, 10, 11, 14, 15, 16, 17, 18, 19 and 20 included medicals in their basic expenses. As a result, it is inclined that health services become a basic need during the retirement period. This need covers the medical check-up, supplements and health consultancy. On the other hand, most respondents reported that

travelling cost them additional expenses besides financial aid to family members and attending a family gathering and seasonal events. Respondent 10, 11 and 23 mentioned that they are helping parents and siblings with financial aid.

Respondent 11 informed,

> *"I am helping siblings who are doing business and another without any source of income".*

The above responses denote those basic expenses incurred on food and household, utilities and medical, and additional cost incurred for travelling, family functions, and assistantship to siblings or family members mostly.

Regarding enough retirement income to cover retirement expenses, respondents from the business sector indicated insufficient income to cover basic and additional costs.

Respondent 18 informed,

> *"Not enough, the income from my small business is low".*

The private sector respondents have mixed responses; several respondents admitted enough to manage primary and additional expenses; others confirmed to have insufficient income. Hence, most public pensioners admitted having sufficient income to address basic and additional costs.

Respondent 21 informed,

> *"Yes, I carefully spend my income and allocated for basic and additional expenses".*

Similarly, Respondent 22 reported,

> *"Yes, so far, all is good, and my income is sufficient as I also have some income from property".*

Consequently, Respondent 8 and 9 started a small business to enhanced income during elderly age to cover additional expenses. Only four respondents admitted spending a small portion on their children while others do not pay for their children. Respondent 21 said that she spends on children less than before. Similarly, Respondent 23 stated that she spends on her son only when he needs it. She informed, *"Sometimes I do cover or help my child's expenses even he is working, but he still needs help sometimes".* In other words, most pensioners do not have enough income to cover additional expenses and limit their expenses due to insufficient income. Furthermore, most of them do not spend on their children, those who spend on children are less than the working period.

Almost all the respondents have chosen the perfect period for retirement except few respondents; who wished to work longer. Indeed, those who wanted to work longer generally retired due to health issues. For example, Respondent 16 informed, *"I think it is just nice as I am not that healthy to work anymore"*. Furthermore, Respondent 23 mentioned that he could work longer when he retired, but he is satisfied with his retirement age over time. He informed, "*When I retired, I thought I could work longer. But after I retired, I guess its a good time. Because I can give my spouse more time now"*. Consequently, almost all respondents are happy with their retirement time.

### 4.1.3 Health Conditions

Retirement well-being depends on health condition with other factors, comprises of wealth, adaption to the social and psychological changes upon retirement (Schellenberg, Turcotte, & Ram., 2005). Given that the main objective of this research is to structure a retirement plan to include health benefits, respondents were asked about their current health conditions to identify the significant illness among pensioners. High blood pressure and diabetes found to be the most common health issues among respondents. Some other health issues that were stated by respondents including heart failure, asthma, thyroid, etc. Respondent 21 informed,

> *"Yes, diabetics and high blood pressure, but I have controlled over time. Alhamdulillah, I am having good health now, and my doctor has also mentioned it"*.

Respondent 22 confirmed the health issue incurred due to ageing. She stated,

> *"I do not have any critical issues. But my knee and muscle have started to give me trouble. I guess it is because of my age"*.

Thus, most respondents are having health issues over the ageing pattern.

Respondents were also asked about their average expenses for medical purpose. The majority of respondents mentioned the average cost for medical purpose in between RM100-250 per month. Regarding managing the medical cost, nearly half of the respondents admitted not to have enough savings or income to cover medical expenses whereby others could handle it. Several respondents also mentioned that their children help regarding medical cost. For instance, Respondent 4, 5, 6 and 15 informed that they depend on children regarding the medical cost. However, there are few respondents satisfied as they already have enough savings to cover medical expenses.

Respondent 22 informed,

> *"Yes, Alhamdulillah. I can manage to cover my all expenses, and I think me and my*
> *husband planned very well"*.

Hence, all respondents receive health services from government hospitals. And the majority of them stated not to have any difficulties or issues to receive government hospitals' services.

The respondents' statements denoted that almost all visit government hospitals for health services due to free or low cost. Furthermore, half of the respondents stated insufficient income to cover a small portion of the cost. Thus, the waiting time is the main crucial issue in government hospitals, and pensioners have accepted it as free.

### 4.1.4 Opinions on the proposed Islamic health protection scheme for retirement

All respondents agreed that having a *shariah*-compliant retirement income for health protection is necessary to reduce the financial burden during retirement period. Among the response;

> *"Very important to have a takaful/shariah compliant plan rather than depending*
> *only on the pension fund for any emergency matters"*.

Some respondents have even suggested a shariah-compliant Takaful plan for medical services along with retirement security.

> *"Yes, it is extremely crucial to have it, simply because you do not want to be a*
> *burden to anyone else in your family, especially when it comes to some medical*
> *problem"*.

> *"Very important. The reason is we never know how our life would be at an older*
> *age, especially health. It is tough to depend on others"*.

It was also found that respondents prefer an effective plan that aims to reduce subsidies and help Takaful to grow through providing equal and fair distribution to the participants. She said,

> *"Yes. The idea is very effective; it will benefit both parties' governments in terms of reducing*
> *subsidies and takaful/Islamic insurance to enhance their business capital. Furthermore,*
> *pensioners especially with lower income groups should be considered as well. Finally, I suggest*

*having an equal retirement income for all pensioners regardless of last drawn salary. It will make fair distribution and also the government may impose such a project, which will ensure the same living styles".*

Specifically, the study examined the sources of retirement income in addition to pension income and the pensioners' retirement planning for the last phase of life cycle. The findings revealed their tendency and reliability on public-funded schemes as retirement income. This trend signifies the dependency on the public system and children during the retirement period. When they were asked about retirement planning earlier during the working period, everybody responded that they did not have any real plans. This is probably because they were not fully concerned over future uncertainties (Barnes et al., 2004), due to their solely or mostly being contingent on pension and some of them on personal savings and children on emergency expenses. These reasons seem to be consistent with the previous study by Barnes et al. (2004), stating that retirement planning was not a normative anticipation by former employees of their societal class or cohort.

Respondents were asked about their current retirement life in regards of expenditures, basic and additional expenses, and adequacy of income. Almost all respondents denoted having less expenditure compared to working period. The reason was clearly explained by a respondent, "*While I was working, I had to pay for housing loans, car loans, but I retired after I settled all debts*". Majority of respondents described their income as sufficient to mitigate basic and additional expenses, mostly household expenses are basic and family gathering, travelling are designated as additional expenses. This is consistent with Barnes et al. (2004) whereby pensioners see their income as comfortable or adequate. The findings have inclined pensioners to strategically plan their additional expenses based on pension income, personal savings and other income. Finally, pensioners are mostly engaged with household chores, grandchildren and significantly, all respondents stated the participation in religious classes to enhance their knowledge on religious practices and benefits.

Despite that all respondents are having ageing health consequences such as diabetics, kidney issues, asthma, high blood pressure, etc., surprisingly, none of them had any health insurance or

scheme. The main reason is that Public hospitals provide free medical services or with minimal charges to all public pensioners and all other elderly and needy people in Malaysia. Therefore, all respondents were found to patronize health services from public hospitals. Furthermore, most of the respondents were found to have no issue with public hospital services. Only a few of them pointed up the waiting time as a crucial issue. A respondent stated, "*Basically, waiting time is too long and also the treatment is not adequate, and the quality isn't good enough. But I can't expect better than it as it is free*".

The findings supported the reason for preferring public treatment as it is free; ultimately indicate the financial consequences for accepting private medical services. So, a developed health care with service and quality of treatment that may enhance the dignity of the ageing population (Stratton & Tadd, 2005). The pensioners subsequently stated to have sufficient income to manage the minimal medical expenses from retirement income and support from children.

Finally, the respondents were asked over having a shariah compliant retirement scheme. Almost every respondent suggested having a shariah compliant retirement plan for future generations. They strained to reduce burden to children and dependency on others especially during retirement, recommended for proposed *shariah* compliant plan linked with *takaful*. This finding is consistent with Conn and Wright (2018), which stated Canadian surgeons suggest retirement planning at an earlier stage of working period.

Consequently, the majority of respondents demonstrated the lack of literacy over *takaful*. Most respondents suggested to educate people about *takaful* and its features should be reached in all Muslim communities. Among the responses to this awareness aspect;

*"Very important. The reason is we never know how our life would be at an older age especially on health. It is tough to depend on others"*.

*"Despite educating the community on takaful, and providing necessary information, people in the community still find takaful and conventional as the same"*.

A respondent advocated formulating a plan which provides equal retirement income for all beyond their last position or social status. She also suggested stopping dependency on government

subsidies, eliminating government contribution to the pension scheme. This finding supported Selvadurai et al. (2018), who found financial literacy or education influenced retirement planning among Malaysians.

The findings discovered the lack of tendency for retirement planning by the pensioners at an early age; mostly relied on pension income, which is the most significant retirement income for the last phase of life cycle, very few had personal savings for emergencies and support from family members. These findings are consistent with (Barnes et al., 2004). Likewise, pensioners perceived a quiet and smooth retired life and received benefits from the public funded pension system (Loureiro et al., 2016). Unlike, Canadian surgeons, mostly begin to plan for retirement at earlier or late working life (Conn & Wright, 2018). However, it is obvious to observe the growth of dependency ratio, following the growth of an ageing population that leads to higher public expenditures. Furthermore, Furunes et al. (2015) found that many employees retire when their parents are still alive, affecting social welfare effectively in terms of higher expenditures.

All the respondents claimed to retire on time, it clearly indicated that increasing retirement age may not be effective for enhanced productivity. Similar result was found by Furunes et al.(2015). The findings revealed the strategy of pensioners in terms of adaptation and coping with retirement, significantly influenced by socio-economic, cultural and political environment, similar results found by Loureiro et al. (2016). In fact, the economy influences both retirement decision and continuation of work till late, less pension income motivates individuals to retire early (Furunes et al., 2015). Sin (2007) suggested considering the dynamics of changing patterns of cultural structures and attitude in order to gauge the rationale and expected supports and services. So, there

are enough suggestions to propose, prudently designed and executed retirement plan will lead to anticipated results; facilitation objectives, eventually result in development of retirement associated knowledge, expectations, attitudes, social norms and practices, religious compliance, political benefits extended to strengthen economic growth, promoting of Islamic insurance (*takaful*), and retirement planning behaviours.

## FINDINGS FROM SURVEY

### 4.2 Analysis of Survey Data

### 4.2.1 Demographic background of respondents

Based on descriptive analysis, male respondents exhibit 43.2% (215) while female 56.8% (283) of the total respondents. Among the respondents, 48% are government employees and 52% are non-government employees while 30.9% are in the 18-29 age group, 38.4% in the 30-39 years age group, 24.3% in 40-49 years age group, and the rest 6.4% in the 50-59 years group. Most of the respondents (31.9%) are from the RM2000-RM4000 monthly income group. With regards to the preferences for i-HPRP, the majority of the respondents treated it as important (the mean value 4.26).

### 4.2.2 Public and Private Employees' Preferences towards i-HPRP

Table 1 below presents results of descriptive analysis on the respondents' preferences towards i-HPRP. Based on the results, the average mean value for the preferences toward i-HPRP is 4.33. The highest mean value is for statement four, "I prefer i-HPRP as it is Shariah compliant". Overall, the results indicate that they were in favorable to the proposed product due to its importance to comply with the Shariah.

Table 1: Public Employees' Preferences towards i-HPRP

| Item | Scale | Frequency | Percentage% | Mean | Std. Dev. |
|---|---|---|---|---|---|
| I prefer i-HPRP to secure my retirement period | 1 | 0 | | 4.32 | .641 |
| | 2 | 3 | 1.3 | | |
| | 3 | 14 | 5.9 | | |
| | 4 | 126 | 52.7 | | |
| | 5 | 96 | 40.2 | | |
| I prefer i-HPRP that provides saving for my retirement | 1 | 0 | 0 | 4.32 | .616 |
| | 2 | 5 | 1.0 | | |
| | 3 | 37 | 7.4 | | |
| | 4 | 285 | 57.2 | | |
| | 5 | 171 | 34.3 | | |
| I prefer i-HPRP as there are contributions from my employer and government | 1 | 0 | 0 | 4.34 | .613 |
| | 2 | 4 | .8 | | |
| | 3 | 41 | 8.2 | | |
| | 4 | 270 | 54.2 | | |
| | 5 | 183 | 36.7 | | |
| I prefer i-HPRP as it is Shariah compliant | 1 | 0 | 0 | 4.36 | .605 |
| | 2 | 5 | 1.0 | | |
| | 3 | 39 | 7.8 | | |
| | 4 | 262 | 52.6 | | |
| | 5 | 192 | 38.6 | | |
| I prefer i-HPRP as this product will be monitored by the Central Bank of Malaysia | 1 | 1 | .2 | 4.33 | .611 |
| | 2 | 5 | 1.0 | | |
| | 3 | 41 | 8.2 | | |

| | 4-- | 276 | 55.4 | | |
|---|---|---|---|---|---|
| | 5 | 175 | 35.1 | | |
| Average | | | | 4.33 | .600 |

*Note: 1=least important, 2=not important, 3=uncertain, 4=important, 5=very important*

### 4.2.3 Employees' Perceived Benefits towards i-HPRP

Table 2 displays the results of descriptive analysis on the respondents' perceived benefits towards the proposed plan. Based on the analysis, the average mean value for perceived benefits is 4.23 where the highest mean value is 4.28 for statement, "*I think i-HPRP will benefit me in case I suffer from critical illness during retirement*". This indicates that the critical illness benefits during the retirement is important and it is offered by the proposed plan.

Meanwhile, the lowest mean value for private employees (4.06) for the statement "*Overall, I think i-HPRP will reduce my financial burden during retirement*". These findings exhibit that public employees were not expecting income from this product while the private sector were not sure about the overall financial burden. It refers to the fact that they were not confident about reducing their financial burden by engaging in a retirement product.

<p align="center">Table 2: Public Employees' Perceived Benefits towards i-HPRP</p>

| Item | Scale | Frequency | Percentage | Mean | Std. dev. |
|---|---|---|---|---|---|
| I think i-HPRP would benefit me in terms of securing health expenses during retirement | 3 | 32 | 13.4 | 4.24 | .673 |
| | 4 | 117 | 49 | | |
| | 5 | 90 | 37.7 | | |
| | 2 | 2 | .8 | 4.18 | .704 |

| | | | | | |
|---|---|---|---|---|---|
| I think i-HPRP will give me income during retirement | 3 | 35 | 14.6 | | |
| | 4 | 119 | 49.8 | | |
| | 5 | 83 | 34.7 | | |
| I think i-HPRP will benefit me in case of I suffer from critical illness during retirement | 2 | 1 | .4 | 4.28 | .700 |
| | 3 | 31 | 13 | | |
| | 4 | 106 | 44.4 | | |
| | 5 | 101 | 42.3 | | |
| I think i-HPRP will allow me to carry out normal activities without worrying about retirement | 2 | 2 | .8 | 4.26 | .696 |
| | 3 | 29 | 12.1 | | |
| | 4 | 114 | 47.7 | | |
| | 5 | 94 | 39.3 | | |
| I think i-HPRP will give me peace of mind regarding my retirement life | 2 | 4 | 1.7 | 4.23 | .734 |
| | 3 | 31 | 13 | | |
| | 4 | 110 | 46 | | |
| | 5 | 94 | 39.3 | | |
| I think i-HPRP will benefit my family too when I am retired | 2 | 2 | .8 | 4.21 | .698 |
| | 3 | 32 | 13.4 | | |
| | 4 | 118 | 49.4 | | |
| | 5 | 87 | 36.4 | | |
| Overall, I think i-HPRP will reduce my financial burden during retirement | 2 | 2 | .8 | 4.23 | .687 |
| | 3 | 29 | 12.1 | | |
| | 4 | 120 | 50.2 | | |
| | 5 | 88 | 36.8 | | |
| Average | | | | 4.23 | .611 |

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

**4.2.4 Employees' Commitment towards i-HPRP**

The results of descriptive analysis for commitment towards i-HPRP is offered in the market is presented in Table 3 below. The average mean value of all responses received for all statement is 4.22 to show the future commitment of the government servant towards the proposed plan. This indicates that they were supportive towards the plan to ensure they have enough saving during that period.

Table 3: Public Employees' Commitment towards i-HPRP

| Item | Scale | Frequency | Percentage | Mean | Std. dev. |
|---|---|---|---|---|---|
| I would commit to join the proposed plan once it is offered in the market | 2 | 2 | .8 | 4.19 | .737 |
| | 3 | 40 | 16.7 | | |
| | 4 | 107 | 44.8 | | |
| | 5 | 90 | 37.7 | | |
| I would commit to support the proposed plan as it is an Islamic retirement plan | 2 | 1 | .4 | 4.25 | .701 |
| | 3 | 33 | 13.8 | | |
| | 4 | 110 | 46.0 | | |
| | 5 | 95 | 39.7 | | |
| I would commit to give my contribution to the plan as it is for my retirement benefits | 2 | 1 | .4 | 4.22 | .719 |
| | 3 | 38 | 15.9 | | |
| | 4 | 107 | 44.8 | | |
| | 5 | 93 | 38.9 | | |
| I would commit to join the proposed plan to ensure that I have enough saving during retirement | 2 | 2 | .8 | 4.23 | .727 |
| | 3 | 36 | 15.1 | | |
| | 4 | 107 | 44.8 | | |
| | 5 | 94 | 39.3 | | |
| Average | | | | 4.22 | .69 |

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

## 4.3 TESTING I-HPRT USING PLS-SEM

PLS-SEM has widely adopted by social science researchers as a standard methodology for analyzing multifaceted inter-relationships between exogenous and endogenous variables (Sarstedt et al., 2020). This method provides various beneficial features which enhanced the applicability of it into several research sectors in current decade (Sarstedt et al., 2020), such as the ability of handling complex models for small data (Hair et al., 2017), assessing formative definite extent models (Sarstedt et al., 2016), and identify the scores for determinate endogenous variable (Rigdon et al., 2019). Accordingly, this method is adopted to test the effect of Saving Behavior, Perceived Benefits, and Commitment towards Retirement Preparation and viability i-HPRP overall.

### 4.3.1 Model Fit

Model fit is confirmed through selected fit indices that indicates the overall effect and relationship among variables of the model. As in Table 4 below, the model is fit given that it's matched with the threshold listed. Figure 5 presents are PLS-SEM model for I-HPRP.

Table 4: Model fit

| Fit Indices | Obtained value | Ideal Threshold |
|---|---|---|
| SRMR | 0.046 | <0.08 |
| Chi-Square | 1991.036 | Upper is Better |
| NFI | 0.865 | >0.9 |

As in Figure 5, $R^2$ (0.48 & 0.182) explained that the variables of the model can explain 48% & 18.2% of dependent variables substantially (Cohen, 1988). Further, the path-coefficient was examined by using the bootstrap resampling (5000) technique to assess the significance level of hypotheses. Accordingly, most of the government servant when they show their preferences towards I-HPRP, given three factors (saving, benefits, and commitment), they were actually concerned on their future planning. This is true because when people think about their future life, they are planning about their retirement life.
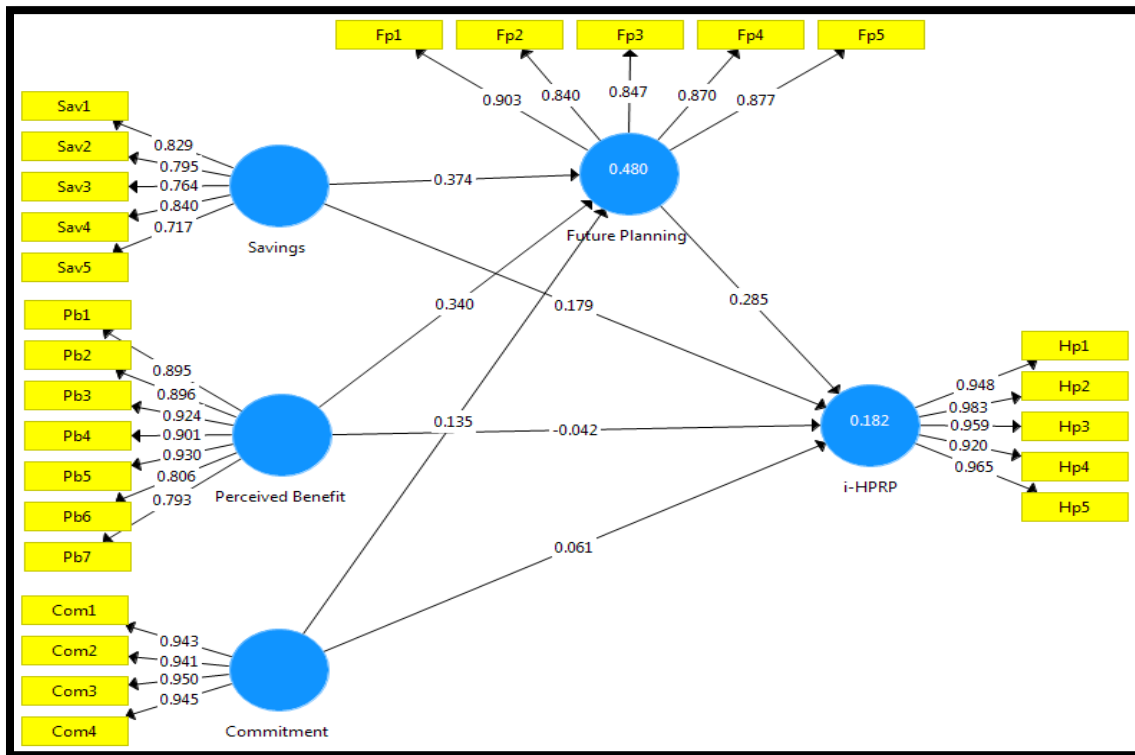


Figure 5: PLS-SEM Model

## 4.3.2 Hypotheses Testing

Among seven hypotheses, five hypotheses were supported through the analysis. Specifically, the H1 ($\beta$=0.285, t=3.735) predicts that future planning and retirement plan (i-HPRP) both indicate

the positive significant relationship where p-value< 0.01. Similarly, H2 ($\beta$=0.179, t=2.984) indicates the path between savings attitude and retirement plan; depicts a significant positive relationship at p-value<0.01. H3 ($\beta$=0.374, t=9.327) depicts the significant positive relationship between savings attitude and future planning at p-value<0.01. Meanwhile, H4 ($\beta$=-0.042, t=0.649, p=0.516) is not supported. In other words, there is no significant relationship between perceived benefits and retirement plans. Hence, H5 ($\beta$=0.340, t=6.895) exhibits the significant positive relationship between perceived benefits and future planning. H6 ($\beta$=0.061, t=1.057, p=0.291) rejects the path between commitment towards a retirement plan. While, H6 ($\beta$=0.135, t=3.113) describes the significant positive relationship at p-value (0.002) <0.01 in between commitment and future planning.

Table 5: Hypotheses testing

| Hypothesis | $\beta$ | T Statistics | P Values | Result |
|---|---|---|---|---|
| Future Planning  -> i-HPRP | 0.285 | 3.735 | 0.000 | Accepted |
| Savings  -> i-HPRP | 0.179 | 2.984 | 0.003 | Accepted |
| Savings  -> Future Planning | 0.374 | 9.327 | 0.000 | Accepted |
| Perceived Benefit  -> i-HPRP | -0.042 | 0.649 | 0.516 | Rejected |
| Perceived Benefit  -> Future Planning | 0.340 | 6.895 | 0.000 | Accepted |
| Commitment  -> i-HPRP | 0.061 | 1.057 | 0.291 | Rejected |
| Commitment  -> Future Planning | 0.135 | 3.113 | 0.002 | Accepted |

**4.4 Findings and Discussion**

Based on deep investigation and observation on the existing schemes on retirement offered in Malaysia, it is found that Malaysians mainly relied on EPF saving to secure their retirement. Unfortunately, many have suffered from insufficient income syndrome when they reach their retirement age. Nevertheless, participation in retirement products is important to ensure the financial capability and retirement wellbeing (Deetlefs et al., 2019). Besides, middle aged employees prefer to make investments for retirement security (Faustino et al., 2020). However, individuals need to make complex decisions in order to combine retirement goals and future needs (Hentzen et al., 2021). In other words, participating in a retirement scheme or product, individuals often face the challenges of saving amount, future expectations, benefits, and obligations. Moreover, many people fail to choose an appropriate retirement plan even due to the lack of basic economic concepts (Lusardi et al., 2020). The main purpose of this research is thus to propose a complementary retirement scheme that is Shariah compliant and at the same time provide income replacement to the pensioners at least 50 percent from their working income. The scheme will not only secure the pensioners' monthly income, but also would provide investment returns as an additional income, and most importantly would prepare financial protection in case of total permanent disability, illnesses, and death.

Based on the descriptive results, the preferences toward proposed Islamic health protection retirement plan is reasonably acceptable. The government servant understudy have shown positive and agreeable responses to the preferences. Therefore, the findings can clearly demonstrate that the proposed model is quite marketable and able to satisfy the current employees future retirement needs. In other words, employees find it satisfactory and enable them to fulfil their retirement

planning prospects. Furthermore, the proposed model managed to cater the employees' attention with its features which includes the health protection along with retirement income. More so, the plan is designed based on Islamic principles that fulfil the social demands of the majority of the employees in Malaysia.

The findings aligned with the past study conducted by (Mohd Kassim , 2003) who denoted the need for a product as annuity. The result is also consistent with Owadally et al. (2021) who denoted the deferred annuities as an optimal strategy for the purpose of enhancing expected retirement income. Meanwhile, the proposed plan may form a crucial impact on the development of retirement annuities. In terms of value of money, the proposed plan has indicated two separate accounts to provide the benefits. More so, the study proposed takaful operators as an institutional agent to operate the funds through shariah based and backed investment products. In these circumstances, it can be articulated that the product will provide shariah risk free better return and execute the contractual promises which were argued by (Asmuni et al 2018).

This finding is consistent with previous studies (Liu et al., 2021; Owadally et al., 2021; Panyagometh, 2021), but it also supports the socially practiced concept is preferable in a retirement plan. Furthermore, employees who are concerned about the future are influenced to participate in the proposed model. In other words, the proposed plan was able to cover the employees' planning for the future. On the other hand, perceived benefit did not directly influence the preference for the proposed plan, but perceived benefit motivated the future planning. This finding contradicts a previous study (Hentzen et al., 2021), where perceived usefulness directly influences the engagement in a retirement mobile app. However, the findings of this study clarified that perceived benefit motivates employees to plan for the future while future plan leads to choosing the proposed plan. Similarly, commitment directly associates to the future planning while directly not

persuading the preferences toward proposed plan. Overall, saving behavior both directly and indirectly influences the preferences for Islamic health protection plan while perceived benefit and commitment indirectly influence the preferences for the proposed plan.

Based on overall findings, the viability of the proposed plan is considered valid and with government intervention it will be a noteworthy retirement plan. The plan will enable to sustain the economic growth of the country by enhancing market share of the takaful industry as well as employees' retirement income growth.

# CHAPTER 5 - CONCLUSION AND SUGGESTIONS FOR FUTURE RESEARCH

## 5.1 Overall Findings

Considering that Malaysia will be categorised as an ageing society in 2030 where 15 percent of its total population is aging 60 years old and above, serious efforts need to be undertaken to ensure that enough financial resources are allocated for the retirement purposes for this group of the society. This study attempts to address the issue of financial preparation for retirement especially for the government servants who will be approximately 1.7 million in 2019, or 11 percent of the Malaysian workforce. While most of the civil servants are relying on government funded retirement schemes based on pension fund, the worrying discovery of the population and housing census in 2010 shows that about 23% or 538,000 of the 2.4 million senior citizens in Malaysia suffered from the 'empty nest' syndrome. The situation is expected to worsen in case of no awareness and preparation done by the Malaysian household. This will put further pressure on national spending on health services for the pensioners and will affect government spending and further strain on the national budget.

In addressing the above issues, this study has provided a solution by formulating a takaful model, namely the Islamic Health Protection Retirement Plan (i-HPRP) for Government Servants in Malaysia. In arriving at the best model, several important factors are being taken into account, including the patterns of spending and saving among government pensioners before and during retirement period, as well as the preparation of the government pensioners towards health expenses

during retirement period. The study has also conducted a viability analysis of the i-HPRP plan especially from the perspective of government agencies; this is done by adopting the qualitative analysis by conducting a series of interviews with government pensioners and industry players.

## 5.2 Implications of Study

A *shariah* based health protection retirement plan may include the heterogeneity of retirement potentials, social structure, and the necessary features to overcome future uncertainties embedded through *sharia* framework into health protection retirement plan and practical implementation. Both physical and mental health should be included in a holistic, inclusive and adequate plan that may promote individuality and sovereignty (Hodgins & McKenna, 2010). Furthermore, Bagley *et al.* (2011) suggested several solutions such as to include engaging communities and public understanding to promote ageing science in health-care education, policy and practice. Therefore, the new plan may be offered as flexible practice than critical retirement planning with financial literacy intrinsically, it should be a practical and logical reform of the current retirement scheme that takes into account the uncertainties leading to the retirement and future consequences (Moffatt & Heaven, 2017). Additionally, a new plan may become an effective retirement plan for all stakeholders (policy makers, *takaful* operators and public servants) to minimize the gaps in benefits and expenditures by considering cultural beliefs and practices (Islamic values and practices in all aspects).

Another important implication from the findings of this study is that financial literacy is important to be initiated not only to those who are approaching retirement age, but should start from the early working age. The study finds that there is a general lack of awareness, knowledge,

and understanding about the retirement planning and this result concurs with findings of Lusardi et al. (2020) many individuals often face the challenges of saving amount, future expectations, benefits, and obligation, leading to the failure to choose an appropriate retirement plan.

Consequently, efforts need to be expedited to increase awareness, knowledge and understanding about retirement planning at all levels of the society, not just to those who are approaching retirement, but should also start from an early working age. Again, this involves the efforts of everyone in the society including the individuals, the government and employers. aIn essence, financial literacy initiatives aim at promoting responsible financial behaviour and considering rational decisions in managing personal finances. A financially literate individual would consider and make a serious commitment to participate in important financial decisions such as to increase saving, thus being moderate and more responsible in current spending. In the context of retirement planning, greater financial knowledge and understanding on the importance of retirement savings provide a significant impact on the propensity to save for retirement through a particular retirement plan. At the aggregate economy level, a financially literate society, therefore is highly important towards a resilient and stable financial sector, and a healthy economy.

The study also implies the importance of increasing the awareness towards a shariah-compliant retirement product as the majority of the government servants in Malaysia are Muslims. This concurs with the findings of the study that the majority of the respondents would prefer a complementary retirement scheme that is Shariah compliant and at the same time provide income replacement to the pensioners at least 50 percent from their working income. Thus, the scheme will not only secure the pensioners' monthly income, but also would provide a peace of mind to the pensioners knowing the fact that the investment returns that they gain as an additional income

during their retirements are derived from halal sources which are invested in a shariah-compliant manner. Further, since the proposed retirement fund will be managed by professionals through Islamic financial institutions, this will further enable the pensioners to enjoy their golden years knowing that they are well-prepared in case of total permanent disability, illnesses, and death.

## 5.3 Recommendations

The findings from this study advocated that it is worth considering in the advancement and propagation of retirement interposition and reformation process. As suggested by the findings of the study, collaborative efforts between the government and private sector is crucial in providing for the health protection plan for the government servants, in view of the limited government funding. The i-HPRP has shown that this collaboration is possible and will result in a win-win outcome from all the parties involved. In essence, the new plan structuring process may associate the pension specialist to consider best practices principles during their research design and improving process, by considering the experiences and over-dependence on the public pension system by public pensioners.

The government servants themselves need to play their role as well in ensuring the effectiveness and success of the proposed health protection plan. They need to undertake serious efforts to improve their financial literacy from the earliest age possible. The retirement planners, in this context, the government and the takaful operators can benefit substantially from this study. It is shown that social practices, cohort beliefs, attitudes and current trends are very effective interventions when offering or formulating any new plan for community, cohort or in the marketplace or workplace. Consequently, considering these findings can be beneficial for exponents of intercessions to partner with *takaful* industries, large organizations, public agencies

and universities for a way to gather funds and perceptible support. The focus and due considerations to these factors would enable an effective retirement planning for the pensioners.

**5.4 Extensions for Future Research**

However, this study is not out of its limitations. One limitation involved with its data collection (interview) that covered only 10 Government retires from Klang Valley, Malaysia. Future studies may include business, private and public pensioners and expand the rural areas along with urban areas. Another limitation is analysis which simply follows thematic analysis from reading and recording of interview data. Future studies may apply recent technologies to interpret and analyze the data. Another area of extension is to explore the retirement preferences of respondents from several groups of ages, which findings would enable the retirement planners to package the retirement product accordingly based on the age group.

# REFERENCES

Baron, R. M., & Kenny, D. A. (1986). The Moderator-Mediator Variable Distinction in Social Psychological Research. Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology*, *51*(6), 1173–1182. https://doi.org/10.1037/0022-3514.51.6.1173

Bollen, K. A., & Stine, R. (1990). Direct and Indirect Effects: Classical and Bootstrap Estimates of Variability. *Sociological Methodology*, *20*, 115. https://doi.org/10.2307/271084

Carrión, G. C., Henseler, J., Ringle, C. M., & Roldán, J. L. (2016). Prediction-oriented modeling in business research by means of PLS path modeling: Introduction to a JBR special section. *Journal of Business Research*, *69*(10), 4545–4551. https://doi.org/10.1016/j.jbusres.2016.03.048

Chin, W. W. (1998). The partial least squares approach to structural equation modelling. In Marcoulides G. A. (Ed.). *Modern Methods for Business Research*, *295*(2), 295–336.

Chin, W. W., Marcelin, B. L., & Newsted, P. R. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Information Systems Research*, *14*(2), 21–41. https://doi.org/10.1287/isre.14.2.189.16018

Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.). Routledge. https://doi.org/10.4324/9780203771587

Evermann, J., & Tate, M. (2016). Assessing the predictive performance of structural equation model estimators. *Journal of Business Research*, *69*(10), 4565–4582. https://doi.org/10.1016/j.jbusres.2016.03.050

Fornell, C., & Larcker, D. (1981). Structural equation models with unobservable variables and

measurement error: Algebra and statistics. *Journal of Marketing Research*, *18*(3), 382-388.

Hair, J. F., Black, B., Babin, B., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (6th ed.). Pearson Prentice Hall.

Hair, J. F., Howard, M. C., & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*, *109*(November 2019), 101–110. https://doi.org/10.1016/j.jbusres.2019.11.069

Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (Second). SAGE Publications, Inc. Printed.

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., & Thiele, K. O. (2017). Mirror, mirror on the wall: a comparative evaluation of composite-based structural equation modeling methods. *Journal of the Academy of Marketing Science*, *45*(5), 616–632. https://doi.org/10.1007/s11747-017-0517-x

Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, *40*(3), 414–433. https://doi.org/10.1007/s11747-011-0261-6

Hayes, A. F., & Preacher, K. J. (2010). Quantifying and testing indirect effects in simple mediation models when the constituent paths are nonlinear. *Multivariate Behavioral Research*, *45*(4), 627–660. https://doi.org/10.1080/00273171.2010.498290

Latan, H. (2018). PLS Path Modeling in Hospitality and Tourism Research: The Golden Age and Days of Future Past. In F. A. Cihan Cobanoglu, S. Mostafa Rasoolimanesh (Ed.), *Applying Partial Least Squares in Tourism and Hospitality Research* (1st ed., pp. 53–83). Emerald Publishing Limited. https://doi.org/10.1108/978-1-78756-699-620181004

Lu, X., & White, H. (2014). Robustness checks and robustness tests in applied economics. *Journal*

*of Econometrics*, *178*(PART 1), 194–206. https://doi.org/10.1016/j.jeconom.2013.08.016

MacKinnon, D. P., Lockwood, C. M., & Williams, J. (2010). Confidence Limits for the Indirect Effect: Distribution of the Product and Resampling Methods. *Multivariate Behavioral Research*, *39*(1), 1–24. https://doi.org/10.1207/s15327906mbr3901

Ramayah, T., Lee, J. W. C., & In, J. B. C. (2011). Network collaboration and performance in the tourism sector. *Service Business*, *5*(4), 411–428. https://doi.org/10.1007/s11628-011-0120-z

Rigdon, E. E., Becker, J. M., & Sarstedt, M. (2019). Factor Indeterminacy as Metrological Uncertainty: Implications for Advancing Psychological Measurement. *Multivariate Behavioral Research*, *54*(3), 429–443. https://doi.org/10.1080/00273171.2018.1535420

Sarstedt, M., Hair, J. F., Ringle, C. M., Thiele, K. O., & Gudergan, S. P. (2016). Estimation issues with PLS and CBSEM: Where the bias lies! *Journal of Business Research*, *69*(10), 3998–4010. https://doi.org/10.1016/j.jbusres.2016.06.007

Sarstedt, M., Ringle, C. M., Cheah, J. H., Ting, H., Moisescu, O. I., & Radomir, L. (2020). Structural model robustness checks in PLS-SEM. *Tourism Economics*, *26*(4), 531–554. https://doi.org/10.1177/1354816618823921

Shmueli, G., Sarstedt, M., Hair, J. F., Cheah, J. H., Ting, H., Vaithilingam, S., & Ringle, C. M. (2019). Predictive model assessment in PLS-SEM: guidelines for using PLSpredict. *European Journal of Marketing*, *53*(11), 2322–2347. https://doi.org/10.1108/EJM-02-2019-0189

Sobel, M. E. (1982). Asymptotic Confidence Intervals for Indirect Effects in Structural Equation Models. *Sociological Methodology*, *13*, 290–312. https://doi.org/10.2307/270723

Wold, H. (1985). Partial least squares. In S. Kotz & N. . Johnson (Eds.), *Encyclopedia of Statistical Sciences.* (pp. 581–591). John Wiley & Sons, Inc. https://doi.org/10.2307/2965452

Asmuni, Nurin Haniah & Purcal, Sachi (2018). On the Study of Malaysia's Private Annuity, Journal of Quality Measurement and Analysis, 14(1), p. 9-22