

Chapter 8

Financial Stability or Instability in their Golden Years: An Analysis of the Financial Preparedness of Malaysians



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Abstract With the number of elderly (classified as those aged 65 and over) expected to double worldwide by 2050 to a projected 2.1 billion (United Nations 2017), the implications for a nation's socio-economic resources can be considered to be y critical. In Malaysia, the rise in the aging population is projected to reach 15.3% by 2030, a rise of almost 10% from the 2010 figure (DOSM 2016), with the majority of individuals not on a secure financial retirement footing. The Employees Provident Fund (EPF), which is the main source of income for a Malaysian upon retirement, announced that Malaysians do not have enough savings in their EPF accounts to support them through their 'golden years'. In line with the United Nations 2030 Agenda for Sustainable Development, this chapter focuses on Sustainable Development Goals 1 and 3, examining the factors which impact the financial preparedness of Malaysians and the implications for their families. Using a survey-based methodology among Malaysians aged up to 60 years of age across Malaysia, the chapter contributes to the current policy debate surrounding the financial well-being of individuals and presents practical implications for identified stakeholders including the government, financial service providers, the ageing population, and their families.

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8.1 Introduction

Retirement preparation and financial literacy are common headlines in the media not just confined to Malaysia and countries in South East Asia; these are global issues that require the attention of governments and individuals across the world (Anderson 2019). Over the past few years, independent surveys have repeatedly illustrated that Malaysians lack financial preparedness (Jaafar 2020; Kaler 2020) and are particularly vulnerable to unexpected financial set-backs (Kaler 2020). This situation is likely to become more pronounced as the COVID-19 pandemic continues to impact the global economy, leaving individuals facing difficult choices and the prospect of a delayed retirement (Kaler 2020). The underlying trend in the subject of financial preparedness and retirement confidence is that Malaysians are not saving enough while at the same time are spending too much; a scenario which is likely to be exacerbated with the advent of more easily accessible and favourable credit terms and increasing online consumer purchasing.

According to the Department of Statistics Malaysia (DOSM) the issue of financial preparedness impacts all age groups but is perhaps most pronounced among younger people who have worked for less than a year (Jaafar 2020; Kaler 2020). This is perhaps unsurprising given this group of Malaysians will not necessarily have accumulated ‘savings’ that can sustain them into retirement. Equally concerning is the fact that 69.7% of those who have worked for less than one year indicated that their financial savings would only support them for less than a month (Jaafar 2020). The figures do not look any better for those who have been in full-time employment for many years, as among those Malaysians who have worked for between 21 and 30 years, only 11.4% felt they had sufficient financial savings for 4 months, and only 11.7% of those who have worked for over 30 years felt they had enough financial reserves to sustain them over 4 months (Kaler 2020). For 68% of employed Malaysians aged 54 and over, the research suggested that this group only has RM 50,000 (circa \$12,400) to sustain them for retirement, a figure unlikely to last more than 5 years, even for the most frugal of individuals (Kaler 2020). The reasons behind this lack of financial preparedness appear to centre around three main themes: the mentality that the Employee Provident Fund (EPF) savings are enough; having no savings and financial plan; and not investing (Anon 2020; Jaafar 2020). Only 2.8 million people (38%) of active EPF members have reached the basic savings threshold of RM196,800 and 163,252 people (65%) of those aged 54 years have less than RM50,000 in their EPF accounts (KWSP 2015). These statistics are compounded by the fact that only 60% of Malaysians have some form of a retirement strategy, which has resulted in the unsurprising figure of 92% of

Malaysians being concerned about their ability to retire and navigate their way through retirement (KWSP 2015). The reliance on the EPF appears key to the fact that 82% of Malaysians will not have enough savings for retirement (Anon 2020). The majority of Malaysians consider that the EPF will be enough to sustain them through retirement (Anon 2020; Jaafar 2020) and as a result impacts, arguably negatively, on the necessity to plan, save and invest, as many Malaysians consider that this has been taken care of through the EPF. The main contributors of the EPF are private sector employees, non-pensionable public sector employees, and other voluntary contributors, and is the main pillar of Malaysia's pension provision. The principal objective of the EPF is not only to provide retirement benefits, but also contributes to housing, education, and health care (KWSP 2019). EPF seeks ways to improve its members' retirement well-being and actively encourages its members to take responsibility for their retirement planning through its Retirement Advisory Service (RAS) which was introduced in 2014. RAS provides free impartial advice to its members on issues such as financial planning and managing retirement savings (KWSP 2018), as many Malaysians are not equipped with the necessary financial literacy and planning skills to manage their retirement savings to see them through retirement. The impact of such initiatives will be investigated in this research.

This chapter explores the factors which impact the financial preparedness and well-being of Malaysians and the implications for their families and communities. It consolidates the existing literature and takes research forward in the areas of financial security and retirement readiness. It also addresses issues related to the United Nations 2030 Agenda for Sustainable Development, focusing on SDG1 (on no poverty), SDG3 (on good health and well-being), SDG10 (on reduced inequalities), and SDG11 (on sustainable cities and communities). These issues are particularly pertinent because of the increasing concern surrounding the financial well-being of Malaysians progressing into retirement. Finally, the chapter lists some measurable outcomes around retirement preparation and planning for Malaysians across age groups.

8.2 Literature Review

The review which underpins this study examines literature about financial preparedness and reveals many common and inter-related themes. The study discusses these themes in a structured narrative that examines Malaysian attitudes towards retirement preparedness, discusses levels of financial knowledge, retirement confidence, and retirement goals. The review reveals pertinent issues relating to Malaysian society and gaps in the current research which will contribute to the existing debate.

8.3 Attitude and Retirement Preparedness

Attitudes towards retirement preparedness can be contextualised as the gradual transition in an individual's attitude to retirement from the pre-retirement period through to the actual 'event' of retirement (Pinquart and Schindler 2007). These attitudes can vary depending on country-specific characteristics (Fernández-López et al. 2015); stereotypes associated to age (Bal et al. 2015)' and the intention to retire (Maurer et al. 2008). In Malaysia, despite having various financial education programmes which are structured to integrate financial planning and management for the population (MFPC 2018), there has been little or no evidence of financial empowerment. There has arguably not been much improvement in financial attitudes towards retirement, perhaps in part because of a lack of financial self-efficacy within taught financial education programmes (Rothwell and Wu 2019) and a lack of retirement awareness among Malaysian society (Ibrahim et al. 2012). While there have been many retirement products offered by financial institutions, the number of consumers of these products are rather limited, as most Malaysians are still under the notion that private and public pension programmes are adequate to cover the costs of maintaining their retirement years.

Post et al. (2013) found that positive attitudes towards retirement and higher income were associated with those on higher incomes who were likely to have the intention to retire early. Hsu et al. (2015) and Van Dam et al. (2009) further investigated attitudes and the intention to take early retirement, finding that those individuals who had a more positive attitude toward early retirement, and who perceived control over the early retirement decision, had a stronger intention to retire early. Negative attitudes towards retirement are also important for research to better understand financial preparedness, with a negative relationship between job satisfaction and retirement attitude found among low-household income and older workers (Davies et al. 2017) with the interplay between income, well-being, and retirement considered important. Peng et al. (2016) highlighted the issue of well-being, arguing that older workers with poor health had negative attitudes towards retirement, and were particularly concerned about the adjustment to retirement. Negative attitudes towards retirement link to later retirement decisions (Zappalà et al. 2008) and retirement preferences (Davies and Cartwright 2011) and is in direct contrast to the positive attitudes towards retirement for those individuals who are considered financially more comfortable. Malaysia being a plural society with its multiracial, multireligious, and multi-ethnic population, has witnessed a difference in its income distribution which does affect how prepared the different ethnic groups are as far as their retirement preparedness is concerned. The majority of the population comprises Bumiputeras (mostly Malays and other indigenous groups), followed by Chinese, Indians, and other ethnic groups. According to a report by Khalid and Yang (2019:1), the average income growth rates have been increasing over the years *“across all ethnic groups (Bumiputera 4.9%, Indians 4.8%, and Chinese 2.7%), with the highest growth of real income per adult accrued to the Bumiputera in the top 1% (at 8.3%), which sharply contrasts the much lower growth rate of the*

Indians (at 3.4%) and negative income growth rates of the Chinese (at -0.6%). Despite the negative growth rate, the Chinese still account for the lion's share in the top 1%. In 2014, 60% of the adults in the top 1% income group are Chinese, while 33% Bumiputera, and 6% Indians (compared to 2002, in which the top 1% consists of 72% Chinese, 24% Bumiputera, and 3% Indians)". As far as financial knowledge is concerned in Malaysia, Chen, Kok, and Yong (KWSP 2018) found that the Chinese possessed the highest financial knowledge, followed by Malays and Indians. With better financial knowledge and higher income levels, the Chinese are more likely to have a positive attitude towards retirement and be better prepared for it.

Rasiah et al. (2020) evaluated the impact of financial literacy, attitude, and potential conflict in retirement planning, covering the concerns around 'living expenses after retirement' and 'maintaining current standard of living', 'cost of financial loan obligations', 'travelling goals' and 'capital or resources needed for a new career', as well as goal clarity on the retirement preparedness of working Malaysian adults. The research illustrated that attitude was less significant in explaining retirement preparedness. Positive attitudes towards retirement were more evident among individuals who were prepared for retirement compared to those less prepared (Heron 2010) and were found to be closely linked to high levels of income, education, support from family, health, and the presence of a large social circle of friends (Glamser 2005). The literature suggests that poor attitudes towards saving (Moorthy et al. 2012) is one of the main reasons why early retirement is not possible for many Malaysians (Habib 2017) and gives rise to the argument that parents need to take on a more active role in the development of a child's financial knowledge and perspectives, which will shape their attitudes towards saving for retirement (Robertson-Rose 2020; Gudmundson and Danes 2011).

Financial education (Carpena et al. 2011) and financial literacy (Financial Services Authority 2017) are essential to create awareness and influence positive attitudes towards improving the quality of decision making and financial management, provided of course, that the individual has the appropriate attitude and motivation (World Bank 2016), in the Financial Services Authority 2017). It has been argued that some individuals are more inclined to be better financial planners, and be more financially literate, with men, elderly people, and married people more likely to demonstrate positive attitudes towards savings, to consume prudently, and to be inclined to have financial plans (Aggarwal and Gupta 2020; Pahlevan Sharif et al. 2020).

8.4 Financial Knowledge

Lusardi and Mitchell (2014) and Hung et al. (2009) indicate that an individual's financial literacy is the capacity to process economic knowledge and make responsible choices in the use of financial resources and maintain financial well-being. The terms financial literacy, financial knowledge, and financial education are often used

interchangeably in the literature (Huston 2010) with this research taking into account all three terms. A fundamental understanding of financial principles and the ability to apply numeracy skills in financial matters enhances a persons' ability to manage their finances with greater confidence and better respond to news and events that may have consequences for their financial well-being (OECD 2020). Financial knowledge plays an important role in retirement preparedness, with financial literacy having a positive and significant impact on financial preparedness (Lusardi and Mitchell 2017; Pahlevan Sharif et al. 2020; Rasiah et al. 2020). Having knowledge of financial risk tolerance, future time perspectives, good financial behaviour, and self-assessed financial knowledge positively influence an individual's confidence in their retirement preparedness (Reyers 2018). Acquiring financial literacy is considered a prerequisite for effective financial planning if an individual wants to achieve a certain degree of retirement preparedness. Financial literacy, however, cannot add true value to financial planning when users cannot reflect and extrapolate meaning, acquire new information through critical thinking, and make use of it (Wilson et al. 2014). OECD (2020) further reports based on their financial literacy survey, that to ensure that the population understand financial matters and can effectively manage their finances, Thailand (with the highest attitude score in the sample), Indonesia, and Malaysia (with the highest and third-highest behavior scores) will need to target awareness and help individuals fully understand the decisions they make. Therefore, the pedagogy of financial education needs to be student-centered, where the learners are given a range of opportunities to participate in various hands-on activities that would engage them in real-world financial planning activities in and outside of the classrooms, engagement which will culminate in financial behavioural changes that will enhance the learners' confidence about financial matters and better prepare them for their future financial and retirement planning.

Mndzebele and Kwenda (2020) found that knowledge of financial instruments significantly impacts financial retirement preparedness; and underlines the importance of increasing an individual's level of knowledge when it comes to investments, financial speculation, and the generation of future cash flow beyond retirement (Bagwell et al. 2014). Financial learning activities can prove significant in improving financial behaviours and act as a mediator between voluntary learning, non-voluntary learning activities, and financial behaviours (Mountain et al. 2020). Previous studies have found that individuals who read formal or informal financial materials such as financial newspapers, magazines and gather information from the internet have higher levels of financial knowledge (Shim et al. 2015). Higher financial knowledge is closely linked to positive credit card behaviors (Allgood and Walstad 2013), retirement planning, savings, and wealth accumulation (Xiao et al. 2014); with the reverse true of lower levels of financial knowledge leading to higher-cost borrowing (Robb et al. 2015), debt accumulation and mortgage delinquency (Lusardi and Tufano 2015).

8.5 Retirement Confidence

Saving adequately for retirement is essential and has contributed to the move to encourage better savings behaviour among individuals of working age. Individuals who are confident they have adequate savings for retirement are more likely to have an easier transition into their retirement life (Taylor and Doverspike 2003) as compared to those who do not and is one of the areas this research focuses on, to understand the profile of individuals who are confident they have saved sufficiently for retirement. To date, several studies demonstrate the effects of financial confidence and levels of financial knowledge (Hui et al. 2016), personal and parental health histories (Zick et al. 2015), and demographic characteristics (Kim et al. 2005). Having high financial knowledge and low financial confidence can deter good practices in personal finance, whereas individuals who are confident but less knowledgeable can manage their finances well and can be better prepared for unexpected changes in their financial circumstances (Hui et al. 2016). Retirement confidence is arguably higher among respondents who have calculated their capital needs for retirement, have higher income levels, and have received workplace financial education (Kim et al. 2005). In terms of personal and parental health histories, Zick et al. (2015) argues that the health history of family members, particularly intergenerational transmission of chronic diseases, have a significant impact on retirement confidence not only in Malaysia but across the globe as individuals with those types of illnesses worry about the financial implications of long-term medical care and whether their savings are enough to support sustained care.

Demographic characteristics (education level, gender, and marital status), financial management practices, financial literacy, financial education, and advice from employers and saving motives are essential to explain retirement confidence regardless of the region being researched (Juen and Sabri 2012; Kim et al. 2005). Greater retirement confidence increases the capability of managing finances (Zebrowitz et al. 2017) for Malaysians and developing solid financial management behaviours (Guo et al. 2013). Although the research by Helman et al. (2013) indicated that confidence towards retirement has declined, the majority of studies have indicated positive relationships between confidence in retirement and specific retirement-saving plans (Lusardi 1999) and public protection for an individuals' well-being in old age (Topa et al. 2018).

Malaysians are increasingly vulnerable to being financially unprepared and are not confident about retirement (Ahmad et al. 2013; AKPK 2018). In a study by Teo and Sabri (2016), it was revealed that most workers, particularly women, aspire to have a relaxing and stress-free retirement life, but lack retirement confidence to achieve their aspirations. This necessitates a need for Malaysians to equip themselves with sufficient knowledge and confidence to manage their finances before and during retirement. Malaysians have been reported to have a relatively long life expectancy (Yeap 2019) in comparison to other Asian countries, and therefore further underlines the need to ensure that they have sufficient funds to see them through retirement. It is estimated that the average Malaysian can expect to live until the age

of 79.8 for males and 82.1 years for females, meaning that those who retire at the age of 65 will have to live on their pensions and savings for an average of at least 14.8 years and 17.1 years respectively (Yeap 2019). This means that if the individual has not planned effectively, they may have to return to work, which can prove challenging for older people particularly if they have suffered from health issues in the past (KWAP 2018), and in the context of a challenging labour market and one dominated by employers' need for computer and technology literacy.

8.6 Retirement Goals

Arguably having clear retirement goals is the starting point for good financial preparation and is crucial in the retirement planning process (Gupta and Hershey 2016). Having clear goals engenders improved financial behaviour (AKPK 2018), satisfaction, and positive wellbeing (Hershey and Henkens 2013; Klug and Maier 2013), as well as playing a vital role in mediating the relationships between financial knowledge and savings behaviour (Boisclair et al. 2017; Topa and Herrador-Alcaide 2016). The clarity of retirement goals is found, unsurprisingly, to be higher among married couples who share goals and aspiration to save and invest for their future security (Ng et al. 2011) as compared to unmarried couples, and families with a larger number of dependents (Stawski et al. 2007).

When investigating retirement goals, Hershey et al. (2002) identified 9 key goals (contact with others, exploration, the attainment of possessions, leisure, self-oriented goals, financial stability, contributions to others, spiritual/transcendental goals, and 'other' goals). Of these retirement goals, 3 categories, contact with others, leisure activities, and self-oriented goals, accounted for more than half of all goals (Hershey et al. 2002). As a result of this research and the prioritising of certain goals, Hershey and Jacobs-Lawson (2009) reclassified the 9 categories into 2 retirement goal groups; goals involving oneself (having fun, being happy, able to have an appropriate work/life balance), and goals involving others such as spending time with family and friends, conducting social work and ensuring one's children are taken care of. Goals give an individual a reason to plan and prepare and perhaps necessitates the need for an individual to develop more financial knowledge and have a more positive attitude towards preparing for retirement. In the research for this chapter, four hypotheses will be examined to better understand the relationship between H1 Attitude towards retirement and retirement preparedness, H2 Financial knowledge and retirement preparedness, H3 Retirement confidence and retirement preparedness, and H4 Retirement goals and retirement preparedness. Using a Malaysian context, the research will address an identified gap in the literature concerning financial confidence and financial goal behaviour in relation to financial preparedness and will consolidate the existing literature related to financial literacy.

8.7 Methodology

The study used purposive sampling to select the respondents who were working Malaysian adults. Following ethical approval and a pilot study to test for understandability of the self-administered survey, the data collection was carried out by enumerators in different states in Malaysia over five months from October 2019 to January 2020. A total of 600 bilingual (English and Bahasa Malaysia) surveys were distributed, 514 (85.67%) were returned, of which 483 were included in the study, a total response rate of 80.5%.

The survey questions were adopted from a review of the literature and selected based on the appropriateness to this research and the importance academics attributed to those studies. The items for 'Attitude towards Retirement' were adopted from Glamser (1976), items for 'Retirement Goals' were adopted from Stawski et al. (2007), items for 'Financial Knowledge for Retirement' adopted from Hershey and Mowen (2000), items for 'Retirement Confidence' were adopted from Helman et al. (2013) and items for 'Retirement Readiness' were adopted from Collinson (2014).

The variance-based SmartPLS structural equation modelling (SEM) software was used to analyse the model developed by this research, due to its versatility in performing multiple multivariate statistical analyses, including regression analysis, path analysis, factor analysis, canonical correlation analysis, and growth curve modeling, data analysis. SmartPLS is also able to assess the causation among sets of dependent and independent variables, as well as to examine the validity and reliability of latent variables. The use of structural equation modelling (SEM) to analyse multiple multivariate statistical analyses was recommended by Urbach and Ahlemann (2010) and considered appropriate for this study.

8.8 Findings

The two-step analytical method of evaluating the measurement and structural models, recommended by Anderson and Gerbing (1988), was employed to analyse the data for this study. The study also undertook the bootstrapping procedure (1000 samples) following the suggestion of Chin (1998), to determine the significant level of loadings, weights, and path coefficients. The demographics of respondents were broadly representative of the Malaysian population, with 65.4% Malays, 17.4% Indian, 14.9% Chinese, and others, mainly expatriates, making up the remaining 2.3%. With regards to gender, 58.2% of the respondents were females and 41.8% were males.

8.9 The Validity of the Measures

To confirm the validity of the measures for this study, the measurement and structural models were examined. The measurement model establishes the underlying relations between the observed variables and the theoretical constructs. The structural model analyses the causality between the exogenous and endogenous constructs. The measurement model revealed a valid overall model specification, with evidence of convergent validity as the loadings for all items were greater than 0.60 (Gefen and Straub 2005). The Average Variance Extracted (AVE) for every construct was in the range of 0.693–0.871, exceeding the recommended value of 0.5 (Hair et al. 2010; Chin 1998), and the composite reliability for all constructs were above 0.7 (Nunnally and Bernstein 1967).

The model also confirms the existence of internal consistency and reliability of all constructs, as the multi-items for each construct displays strong evidence that they measure the same concept that the construct relates to (Hair et al. 2010), as reflected in the composite reliability values being above 0.7 for every construct. The model displays evidence of fulfilling the requirements of discriminant validity, which is important, given that models are developed based on constructs that have items that can distinctly differentiate one construct from another. Discriminant validity or construct validity was evident in this model, with all the correlations between the different constructs below the ‘square root’ of AVE of each latent variable, as recommended by Gefen and Straub (2005). The 5 constructs used in this model were different from each other, thereby confirming discriminant validity of the outer model, with the consequences on the hypotheses of this research discussed later in the chapter.

With the measurement model requirements being confirmed, the study proceeded to analyse the structural model using bootstrapping with 1000 samples. The results reveal that attitude towards retirement, financial knowledge, and retirement confidence were significant antecedents of retirement preparedness, while retirement goals were surprisingly not a significant explanatory variable. It was anticipated that to be financially prepared you would have to have a financial goal to measure your level of preparation, which is in line with any good plan, financial or otherwise. The result from this research, however, could partially explain that a lack of financial preparedness among Malaysians, without an appropriate financial goal, might be underestimating the level of preparation required for financial retirement and links to the argument that many Malaysians think the EPF savings are enough to see them through their retirement (Anon 2020; Jaafar 2020).

The results illustrate the importance of retirement confidence on retirement preparedness, with retirement confidence having the largest beta-value. The t-statistics were analysed using PLS-SEM and bootstrapping with 2000 samples (Chin 1998), reflecting the significance of the path coefficients in the structural model. The R square value shows that 55% of the variance of retirement preparedness can be explained by the model, i.e. attitude towards retirement, financial knowledge, and retirement confidence explains approximately 55% of the variance in retirement

preparedness. The results support hypotheses 1, 2, and 3 but do not support hypothesis 4, as retirement goals are not a significant predictor of retirement preparedness (standardised estimate = 0.144, $p > 0.05$), while attitude towards retirement (standardised estimate = 0.242, $p < 0.05$), financial knowledge (standardised estimate = 0.241, $p < 0.05$), and retirement confidence (standardised estimate = 0.280, $p < 0.05$) are all significant and direct predictors of retirement preparedness. The study further explored the differences in the magnitude and direction of the factors affecting retirement preparedness between males and females, as it has been argued in the literature that there could be gender differences with regards to financial literacy and financial preparedness (Fonseca et al. 2012; Pahlevan Sharif et al. 2020).

Based on Table 8.1, the results reveal that the factors that significantly influence retirement preparedness among males in Malaysia are attitude, retirement confidence, and retirement goals; as opposed to females, where all 4 factors significantly influence retirement preparedness. Financial knowledge was not a significant factor influencing the males' readiness to retire, but it was significant in females' retirement preparedness. The factor that had the biggest impact on retirement preparedness among the males was retirement goals, whereas retirement confidence had the strongest influence on retirement preparedness among females. This was an interesting result given that for the overall sample, retirement goals were the only factor that did not have a significant effect on retirement preparedness and one which merits further investigation in a future study. Overall, the findings reveal the importance of attitude, financial knowledge, retirement confidence, and to a lesser extent retirement goals in understanding Malaysians retirement preparedness which is useful in directing policy relating to the way pre-retirees think and plan for their future retirement.

8.10 Discussion and Conclusion

The study examined the relationship between attitudes towards retirement, financial knowledge, retirement confidence, and retirement goals, and financial preparedness among working adults in Malaysia. The results reveal that attitudes towards retirement, financial knowledge, and confidence for one's retirement are positively and significantly related to retirement preparedness. Only retirement goals did not have a significant relationship with an individual's retirement preparedness, although it should be noted that it proved significant for male respondents. The role of attitude in positively predicting retirement preparedness reveals the importance of inculcating good retirement attitudes and behaviours from a relatively young age. Having a positive attitude towards retirement eases the process of retiring, as individuals have psychologically prepared themselves for the life-changing experience that retirement brings. The more positive one's attitude is towards retirement, the better prepared they are for that eventuality. The positive impact that attitude has towards retirement preparedness in this study is supported by previous research (Post et al. 2013; Fernández-López et al. 2015) but conflicts with the work of Peng et al. (2016);

Table 8.1 Path estimate differences between males and females

Paths	Male				Female			
	Standardized Path Coefficients	Significance	95% CI		Standardized Path Coefficients	Significance	95% CI	
			Lower Bound	Upper Bound			Lower Bound	Upper Bound
Attitude towards retirement – > retirement preparedness	0.187***	0.004	0.069	0.362	0.255***	0.000	0.189	0.449
Financial knowledge – > retirement preparedness	0.123	0.065	-0.009	0.310	0.197***	0.002	0.087	0.0365
Retirement confidence – > retirement preparedness	0.217***	0.003	0.075	0.363	0.308***	0.000	0.214	0.440
Retirement goals – > retirement preparedness	0.342***	0.000	0.197	0.454	0.149***	0.010	0.037	0.264

*** p -value < 0.01; ** p -value < 0.05

and Rasiah et al. (2020) which underlines the need for further research to investigate this relationship and better understand Malaysian working adults attitudes towards financial preparedness.

Financial knowledge was found to have a significant and positive impact on retirement preparedness, a finding that is supported by previous research (Rasiah et al. 2020; Koh et al. 2019; Lusardi and Mitchell 2017). The research revealed that financial knowledge had a significant relationship with retirement preparedness among the sample overall and females, while it was not a significant predictor among males. The significant financial knowledge-retirement preparedness nexus could be explained by the fact that women play a significant role in saving money and household expenditure. This may be linked to the cultural upbringing in Malaysia and Asian countries in general, where women take on a larger role in managing the household finances and therefore require enhanced financial knowledge, which in turn better prepares them for retirement. This relationship with financial knowledge among Malaysian women has also increased in line with their more significant role in the workforce and resultant spending power (Chandran 2018).

Retirement confidence refers to how prepared an individual feels within themselves to be facing retirement. Confidence involves having enough savings and the ability to manage their finances well enough to transition seamlessly into retirement. The results of this study found retirement confidence to have a positive and significant influence on retirement preparedness, consolidating the findings of Taylor and Doverspike (2003); Hui et al. (2016); and Copeland (2020). Hui et al. (2016) mentioned that financially confident individuals managed their finances well and were better prepared for unexpected changes in their financial needs, despite being less knowledgeable. This underlines the importance of having greater retirement confidence to ensure an individual takes positive measures to plan and prepare to save, invest, and manage their finances so that they can retire relatively comfortably. The results of this study favours interventions that include fostering retirement confidence among individuals, rather than only focusing on financial education. The policy efforts must be conscious of the fact that both retirement confidence and financial knowledge complement each other and should therefore be part and parcel of policy implementation that will prepare people for their eventual retirement. If one aspires to retire and afford a decent standard of living, long-term plans must be put in place to enhance an individual's financial knowledge and build their confidence by providing opportunities to practice their knowledge in financial activities to ensure they acquire skills and confidence that will better prepare them for their life journey and retirement. One of the strategies that the Malaysian government, through the Ministry of Education, can do is to ensure that financial education is included as a compulsory module for learners across the education levels, from preschool, through to secondary and tertiary education. These financial education modules must be age-appropriate with a pedagogical framework based on a student-centred paradigm, where the learners are given opportunities to participate in various hands-on activities that engage with real-world financial planning. Through this engagement, financial behaviours can change, which will in turn enhance the learners' confidence about financial matters and better prepare them for their future

financial and retirement planning. Financial education programmes should also become a major tenant of human resource development programmes to reinforce financial understanding and planning. Employers have to engage with further initiatives to encourage good financial behaviour and sustainable financial planning among employees so that they are more confident about their financial knowledge, goals, and their financial future.

Policymakers should organise various empowerment programmes that can instill or enhance financial self-efficacy. Bandura (1977) affirms that self-efficacy is the most important psychological antecedent that influences an individual's thoughts, feelings, behaviour, and accomplishments. Individuals with high levels of self-efficacy have been found to display greater confidence in their financial capabilities, especially in dealing with challenging situations, and this is said to be a major factor influencing an individual's behaviour. Finance education programmes can only be effective in bringing about real behavioural changes through self-efficacy. It is therefore important that policymakers design and organise self-efficacy empowerment programmes to support education and human resource development programmes.

As far as retirement goals are concerned, the results of the overall model do not support its significance as a predictor of retirement preparedness. However, the results of the gender-based model in Table 8.1 do provide statistical evidence that retirement goals are significant in explaining male retirement preparedness. This finding aligns with the research of Zhu and Chou (2018), Chou et al. (2015), Moorthy et al. (2012) and Stawski et al. (2007) which revealed that having clear goals enhanced retirement saving practices and encouraged retirement planning behaviour. Goals play an important role in directing financial planning yet are not necessarily significant in an individual's financial preparedness with attitudes, particularly positive attitudes, financial knowledge, and confidence more significant and ultimately more positive indicators in a Malaysian working adult's financial preparedness.

The study provided insight into the factors which influence financial preparedness in Malaysia which have implications for government, employers, and the people themselves, but it is not without its limitations. The first limitation is that the data is drawn from several states in Malaysia but not all the states. This was not considered a major limitation, as the respondents in this research are broadly representative of the Malaysian population across the country with regards to age, ethnicity, and gender, with Malaysians from across all states being included in a future study. A second limitation of the study involves the use of only one research instrument, which will be addressed in a larger study incorporating a survey and interviews. A final limitation is the cross-sectional nature of the data. Although not considered a major limitation, the authors are considering using panel data for future research. This panel data will incorporate both cross-sectional and time-series data to develop and further understand the themes to emerge from this research.

With regards to further research, the authors intend to examine the relationship between age and financial preparedness to shed light on the argument that the older

an individual is, the more likely they are to perceive the need for financial preparedness. Another area for further research and related to the earlier recommendation would be to investigate the perspectives of those males who felt financially prepared and confident for their retirement and who thought financial goals were significant in their financial preparedness. It would be interesting to gain a more holistic understanding of their financial knowledge, retirement goals, financial preparedness, and retirement confidence. Such a study could be replicated across Southeast Asian nations to gain insight into the gender attitudes towards financial preparedness, an issue particularly pertinent in an increasingly turbulent economic environment.

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References

- Aggarwal M, Gupta VK (2020) Financial literacy and decision making. *ASBM J Manag* 13(1/2):21–38
- Ahmad NA, Masud J, Ibrahim R (2013) Domains of pre-retirement planning: experiences of never-married Malay women retirees of the Malaysian civil services. *Macrothema Rev* 2(5):79–96
- AKPK (2018) Financial behaviour and state of financial well-being of Malaysian working adults. AKPK, Kuala Lumpur
- Allgood S, Walstad W (2013) Financial literacy and credit card behaviors: a cross-sectional analysis by age. *Numeracy* 6(2):1–26
- Anderson D (2019) The financial burden of retirement is a global problem – but Asia is uniquely vulnerable. [online]. Brink News. Available from: <https://www.brinknews.com/the-financial-burden-of-retirement-is-a-global-problem-but-asia-is-uniquely-vulnerable/>. Accessed 28 Aug 2020
- Anderson J, Gerbing W (1988) Structural equation modelling in practice: a review and recommended two stage approach. *Psychol Bull* 27(1):5–24
- Anon (2020) Why most Malaysians won't retire with enough money. [online]. Beyond Insights. Available from: <https://www.beyondinsights.net/malaysians-wont-retire-enough-money/#:~:text=In%20a%20recent%20news%20by,much%20and%20not%20saving%20enough%E2%80%9D>. Accessed 3 Sept 2020
- Bagwell S, Hestbaek C, Harries E, Kail A (2014) Financial capability outcome frameworks. Report commissioned as part of the Financial Capability Strategy for the UK. [online]. Thinknpc. Available from: <https://www.thinknpc.org/wpcontent/uploads/2014/09/Financial-Capability-Outcome-Frameworks-MAS.pdf>. Accessed 18 July 2020
- Bal P, de Lange A, Van der Heijden B, Zacher H, Oderkerk F, Otten S (2015) Young at heart, old at work? Relations between age, (meta-)stereotypes, self-categorization, and retirement attitudes. *J Vocat Behav* 91:35–45
- Bandura A (1977) Self-efficacy: toward a unifying theory of behavioral change. *Psychol Rev* 84(2):191
- Boisclair D, Lusardi A, Michaud PC (2017) Financial literacy and retirement planning in Canada. *J Pension Econ Financ* 16(3):277–296
- Carpena F, Cole S, Shapiro J, Zia B (2011) Unpacking the causal chain of financial literacy. Policy Research working paper, WPS5798, 1–36

- Chandran S (2018) Financial literacy is the key to women's empowerment. [online]. The Star. Available from: <https://www.thestar.com.my/lifestyle/living/2018/03/15/financial-literacy-empowerment>. Accessed 3 Sept 2020
- Chin WW (1998) The partial least squares approach to structural equation modelling. In: Marcoulides GA (ed) *Modern methods for business research*. Lawrence Erlbaum Associates, Inc., Mahwah, pp 295–336
- Chou KL, Yu KM, Chan WS, Wu AM, Zhu AY, Lou VW (2015) Perceived retirement savings adequacy in Hong Kong: an interdisciplinary financial planning model. *Ageing Soc* 35(8):1565–1586
- Collinson C (2014) *The retirement readiness of three unique generations: baby boomers, generation X, and millennials*. Baltimore, Transamerica Center for Retirement Studies
- Copeland C (2020) Retirement confidence survey: attitudes toward retirement by women of different marital statuses. *Empl Benefit Res Inst* 507:1–40
- Davies E, Cartwright S (2011) Psychological and psychosocial predictors of attitudes to working past normal retirement age. *Empl Relat* 33(3):249–268
- Davies E, Van Der Heijden BIJM, Flynn M (2017) Job satisfaction, retirement attitude and intended retirement age: a conditional process analysis across workers' level of household income. *Front Psychol* 8:1–13
- Department of Statistic Malaysia (2016) *Population projection (Revised) 2010–2040*. [online]. DSMOP. Available from: https://www.dosm.gov.my/v1/index.php?r=column/ctwoByCat&parent_id=115&menu_id=L0pheU43NWJwRWVVSZkIWdzQ4TlhUUT09. Accessed 5 Sept 2020
- Fernández-López S, Vivel-Búa M, Otero-González L, Durán-Santomil P (2015) Exploring the gender effect on Europeans' retirement savings. *Fem Econ* 21(4):118–150
- Financial Services Authority (2017) *National strategy on financial literacy*. [online]. OJK. Available from: [https://www.ojk.go.id/id/berita-dan-kegiatan/publikasi/Documents/Pages/StrategiNasional-Literasi-Keuangan-Indonesia-\(Revisit-2017\)-/SNLKI%20\(Revisit%202017\).pdf](https://www.ojk.go.id/id/berita-dan-kegiatan/publikasi/Documents/Pages/StrategiNasional-Literasi-Keuangan-Indonesia-(Revisit-2017)-/SNLKI%20(Revisit%202017).pdf). Accessed 24 Aug 2020
- Fonseca R, Mullen KJ, Zamarro G, Zissimopoulos J (2012) What explains the gender gap in financial literacy? The role of household decision making. *J Consum Aff* 46(1):90–106
- Gefen D, Straub DW (2005) A practical guide to factorial validity using PLS-graph: tutorial and annotated example. *Commun Assoc Infor Syst* 16(1):91–109
- Glamser FD (1976) Determinants of a positive attitude toward retirement. *Journal of Gerontology*, 31(1):104–107
- Glamser FD (2005) Determinants of a positive attitude toward retirement. *J Gerontol* 31(1):104–107
- Gudmundson C, Danes S (2011) Family financial specialisation. *J Fam Econ Issues* 32:644–667
- Guo L, Stone D, Bryant S, Wier B, Nikitkov A, Ren C, Riccio EL, Shen M, Trabelsi S, Zhang L (2013) Are consumers' financial needs and values common across cultures? Evidence from six countries. *Int J Consum Stud* 37(6):675–688
- Gupta R, Hershey DA (2016) Cross-national differences in goals for retirement: the case of India and the United States. *J Cross Cult Gerontol* 31(3):221–236
- Habib S (2017) *Counting on the Nest Egg*. [online]. The Star. Available from: <https://www.thestar.com.my/news/nation/2007/05/27/counting-on-the-nest-egg>. Accessed 20 Aug 2020
- Hair JF, Black WC, Babin BJ, Anderson RE (2010) *Multivariate data analysis*. Prentice Hall, Englewood Cliffs
- Helman R, Greenwald M, Adams N, Copeland C, Van Derhei J (2013) The 2013 retirement confidence survey: perceived savings needs outpace reality for many. [online]. EBRI, available from: 2013. http://www.ebri.org/files/Final-FS.RCS-13.FS_3.Saving.FINAL.pdf. PMID: 23678670. Accessed 27 July 2020
- Helman R, Adams NE, Copeland C, VanDerhei J (2013) The 2013 Retirement Confidence Survey: Perceived savings needs outpace reality for many. EBRI Issue Brief, (384). http://papers.ssm.com/sol3/papers.cfm?abstract_id=22380

- Heron A (2010) Retirement attitudes among industrial workers in the sixth decade of life. *Vita Humana* 6:152–159
- Hershey DA, Henkens K (2013) Impact of different types of retirement transitions on perceived satisfaction with life. *The Gerontologist* 54(2):232–244
- Hershey DA, Jacobs-Lawson JM (2009) Goals for retirement: content, structure and process. In: Brougham RR (ed) *New directions in aging research*. Nova Science Publishers, Hauppauge, pp 167–186
- Hershey DA, Mowen JC (2000) Psychological determinants of financial preparedness for retirement. *The Gerontologist* 40(6):687–697
- Hershey DA, Jacobs-Lawson JM, Neukam KA (2002) Influences of age and gender on workers' goals for retirement. *Int J Aging Hum Dev* 55:163–179
- Hsu W, Chiang C, Chuang H (2015) Factors affecting retirement attitude among elementary school teachers. *Educ Gerontol* 41(8):590–603
- Hui TSW, Nguyen C, Palameta B, Gyarmati D (2016) The role of financial literacy in financial decisions and retirement preparedness among seniors and near-seniors. Social Research and Demonstration Corporation, Ontario
- Hui TSW, Nguyen C, Palameta B, Gyarmati D, Wagner RA, Rose N, Llp F (2016) The role of financial literacy in financial decisions and retirement preparedness among seniors and near-seniors. Calgary, Canada, Social Research and Demonstration Corporation
- Hung AA, Parker AM, Yoong JK (2009) Defining and measuring financial literacy. *Labour Popul Work Paper Ser* 107:1–28
- Huston SJ (2010) Measuring financial literacy. *J Consum Aff* 44(2):296–316. <https://doi.org/10.1111/j.1745-6606.2010.01170.x>
- Ibrahim DM, Isa Z, Ali N (2012) Malaysian Savings Behavior towards Retirement Planning. In: *Proceedings of the 2012 international conference on economics marketing and management IPEDR*. ACSIT Press, Singapore
- Jaafar SS (2020) Many Malaysians say not financially prepared for an extended MCO – survey. [online]. The Edge Markets. Available from: <https://www.theedgemarkets.com/article/many-malaysians-say-not-financially-prepared-extended-mco-%E2%80%94-survey>. Accessed 26 Aug 2020
- Juen TT, Sabri MF (2012) Factors affecting retirement confidence among women in peninsular Malaysia government sectors. *Malays J Consum Fam Econ* 19:53–68
- Kaler S (2020) M'sians not financially resilient enough for retirement. [online]. The Star. Available from: <https://www.thestar.com.my/news/nation/2020/08/10/m039sians-not-financially-resilient-enough-for-retirement>. Accessed 26 Aug 2020
- Khalid MA, Yang L (2019) Income inequality ethnic cleavages Malaysia and in evidence from distributional national accounts (1984–2014). Available from: https://wid.world/document/wid_issue_brief_2019_9-pdf/. Accessed 08 Jan 2021
- Kim J, Kwon J, Anderson EA (2005) Factors related to retirement confidence: retirement preparation and workplace financial education. *Financ Couns Plan* 16(2):77–89
- Klug HP, Maier GW (2013) Linking goal progress and subjective Well-being: a meta-analysis. *J Happiness Stud* 14:1–29
- Koh BSK, Mitchell OS, Fong JH (2019) Trust and retirement preparedness: evidence from Singapore. Pension research council working paper, PRC WP2019-3, 1–39
- KWAP (2018) Retirement preparedness and productive ageing among government employees and retirees in Klang Valley [online]. KWAP. Available from: <https://www.kwap.gov.my/EN/UsefulInformation/Publication/Documents/Myageing%20report.pdf>. Accessed 18 July 2020
- KWSP (2015) Annual report 2015. [online]. KWSP. Available from: http://www.kwsp.gov.my/portal/documents/10180/5915090/1_THE_GUARDIAN_OF_RETIREMENT.pdf. Accessed 14 July 2020
- KWSP (2018) Social protection insight: a better tomorrow [online]. Available from: http://www.kwsp.gov.my/portal/documents/10180/6409199/Social_Protection_Insight_Vol.3_08082018.pdf. Accessed 8 Jan 2021

- KWSP (2019) Overview of the EPF. Available from: <http://www.kwsp.gov.my/portal/en/about-epf>. Accessed 08 Jan 2021
- Lusardi A (1999) Information, expectations, and savings for retirement. In: Aaron H (ed) Behavioral dimensions of retirement economics. Brookings Institution Press and Russell Sage Foundation, Washington, DC
- Lusardi A, Mitchell OS (2014) The economic importance of financial literacy: theory and evidence. *J Econ Lit* 52(1):5–44
- Lusardi A, Mitchell O (2017) How ordinary consumers make complex economic decisions: financial literacy and retirement readiness. *Q J Financ* 7(03):1–31
- Lusardi A, Tufano P (2015) Debt literacy, financial experiences, and over indebtedness. *J Pension Econ Financ* 14(4):332–368
- Malaysia Financial Planning Council (2018) Financial Literacy Programme “My Money & Me”. Available from <https://mfpc.org.my/education/mymoneyme/>. Accessed 08 Jan 2021
- Maurer TJ, Barbeite FG, Weiss EM, Lippstreu M (2008) New measures of stereotypical beliefs about older workers’ ability and desire for development. *J Manag Psychol* 23:395–418
- Mndzebele ZW, Kwenda F (2020) The effects of financial literacy on financial preparedness for retirement among academic staff in higher learning institutions in the kingdom of Eswatini. *Acta Universitatis Danubius (Economica)* 16(5):265–280
- Moorthy MK, Durai T, Chelliah L, Sien CS, Leong LC, Kai NZ, Rhu WC, Teng WY (2012) A study on the retirement planning behaviour of working individuals in Malaysia. *Int J Acad Res Econ Manag Sci* 1(2):54–72
- Mountain TP, Kim N, Serido J, Shim S (2020) Does type of financial learning matter for young adults’ objective financial knowledge and financial behaviors? A longitudinal and mediation analysis. *J Fam Econ Issues*:1–20
- Ng TH, Tay WY, Tan NL, Lim YS (2011) Influence of investment experience and demographic factors on retirement planning intention. *Int J Bus Manag* 6(2):196–203
- Nunnally JC, Bernstein IH (1967) Psychometric theory. McGraw-Hill, New York
- OECD (2020) OECD/INFE 2020 international survey of adult financial literacy www.oecd.org/financial/education/launchoftheoecdinfeglobalfinancialliteracysurveyreport.htm
- Pahlevan Sharif S, Ahadzadeh AS, Turner JJ (2020) Gender differences in financial literacy and financial behaviour among young adults: the role of parents and information seeking. *J Fam Econ Iss* 41(1):672–690
- Peng Y, Liu T, Chen C, Chan Y (2016) Does poor health raise preferences for retirement? *Soc Sci J* 53(4):501–509
- Pinquart M, Schindler I (2007) Changes of life satisfaction in the transition to retirement: a latent-class approach. *Psychol Aging* 22:442–455
- Post C, Schneer JA, Reitman F, Ogilvie DT (2013) Pathways to retirement: A career stage analysis of retirement age expectations. *Human Relat* 66(1):87–112
- Rasiah R, Bilong FM, Turner JJ, Waheed H, Somasundram S, Tee KPL (2020) A structural equation modelling study of the determinants of retirement preparedness. *Int J Innov Creat Change* 6(1):24
- Reyers M (2018) Perceptions of retirement adequacy: evidence from South Africa. *J Financ Couns Plan* 29(2):343–356
- Robb CA, Babiarz P, Woodyard A, Seay MC (2015) Bounded rationality and use of alternative financial services. *J Consum Aff* 49(2):407–435
- Robertson-Rose L (2020) “Because my father told me to”: exploratory insights into parental influence on the retirement savings behavior of adult children. *J Fam Econ Iss* 41(2):364–376
- Rothwell DW, Wu S (2019) Exploring the relationship between financial education and financial knowledge and efficacy: evidence from the Canadian financial capability survey. *J Consum Aff* 53(4):1725–1747
- Shim S, Serido J, Tang C, Card N (2015) Socialization processes and pathways to healthy financial development for emerging young adults. *J Appl Dev Psychol* 38:29–38

- Stawski RS, Hershey DA, Jacobs-Lawson JM (2007) Goal clarity and financial planning activities as determinants of retirement savings contributions. *Int J Aging Human Dev* 64(1):13–32
- Taylor MA, Doverspike D (2003) Replanning and preparation. In: Adams A, Beehr TA (eds) *Retirement: reasons, processes, and results*. Springer, New York, pp 53–82
- Teo J, Sabri MF (2016) Factors affecting retirement confidence among women in peninsular Malaysia government sectors. *Malays J Consum Fam Econ* 19:53–68
- Topa G, Herrador-Alcaide T (2016) Procrastination and financial planning for retirement: a moderated mediation analysis. *J Neurosci Psychol Econ* 9(3–4):169–181
- Topa G, Segura A, Pérez S (2018) Gender differences in retirement planning: a longitudinal study among Spanish registered nurses. *J Nurs Manag* 26(5):587–596
- United Nations, Department of Economic and Social Affairs, Population Division (2017) *World population ageing 2017* – [online]. *Econ Soc Aff*. Available from: Highlights https://www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2017_Highlights.pdf. Accessed 14 July 2020
- Urbach N, Ahlemann F (2010) Structural equation modeling in information systems research using partial least squares. *J Inf Technol Theory Appl* 11(2):5–40
- van Dam K, van der Vorst JDM, Van der Heijden BIJM (2009) Employees’ intentions to retire early: a case of planned behavior and anticipated work conditions. *J Career Dev* 35(3):265–289
- Wilson RMS, Abraham A, Mason CLJ (2014) The nature of financial literacy. In: Wilson RMS (ed) *The Routledge companion to accounting education*. Routledge, New York, pp 51–80
- World Bank (2016) *Live long and prosper: aging in East Asia and Pacific*. Washington, DC, The World Bank
- Xiao JJ, Chen C, Chen F (2014) Consumer financial capability and financial satisfaction. *Soc Indic Res* 118(1):415–432
- Yeap C (2019) Cover story: public pension reform painful, necessary, overdue. [online]. *The Edge Malaysia*. Available from: <https://www.theedgemarkets.com/article/cover-story-public-pension-reform-painful-necessary-overdue>. Accessed 5 Sept 2020
- Zappalà S, Depolo M, Fraccaroli F, Guglielmi D, Sarchielli G (2008) Postponing job retirement?: Psychosocial influences on the preference for early or late retirement. *Career Dev Int* 13:150–167
- Zebrowitz LA, Boshyan J, Ward N, Gutchess A, Hadjikhani N (2017) The older adult positivity effect in evaluations of trustworthiness: emotion regulation or cognitive capacity? *PLoS One* 12(1):e0169823
- Zhu AYW, Chou KL (2018) Retirement goal clarity, needs estimation, and saving amount: evidence from Hong Kong, China. *J Financ Couns Plan* 29(2):328–342
- Zick CD, Mayer RN, Smith KR (2015) Family health histories and their impact on retirement confidence. *J Aging Health* 27(5):775–796