FACTORS AFFECTING RETIREMENT PLANNING BEHAVIOUR AMONG WORKING ADULTS IN THE PRIVATE SECTOR: THE CASE OF PULAU PINANG, KUALA LUMPUR, AND JOHOR.

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DECLARATION

We hereby declare that:

(1) This undergraduate FYP is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.

(2) No portion of this FYP has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

(3) Equal contribution has been made by each group member in completing the FYP.

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LIST OF ABBREVIATIONS

AVE   Average Variance Extracted

DOSM   Department of Statistic Malaysia

DV   Dependent Variable

EPF   Employee Provident Funds

FE   Family Education

FEN   Financial Education Network

FL   Financial Literacy

GC   Goal Clarity

HTMT   Heterotrait-Monotrait

IV   Independent Variable

LIAM   Life Insurance Association of Malaysia

RPB   Retirement Planning Behaviour

SOCSO   Social Security Organisation

SPSS   Statistical Package for Social Science

TPB   Theory of Planned Behaviour

VIF   Variance Inflation Factor

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DEDICATION

This study is dedicated to each individual who has contributed to its successful realization. The efforts, whether they were direct or indirect, hold immeasurable value.

Firstly, we would like to dedicate this study to our FYP supervisor, Ms. Kalai Vani A/P Kalimuthu. She has invested her precious time and effort in guiding us through the study. Her persistent guidance and insightful advice have been important in helping us overcome the challenges encountered at each step of this study.

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PREFACE

This study holds great significance as it constitutes a key component of our undergraduate course, which is Bachelor of Economics (Hons) Financial Economics offered by Universiti Tunku Abdul Rahman. The topic of this study is "Factors Affecting Retirement Planning Behaviour Among Working Adults in The Private Sector: The Case of "Kuala Lumpur, Pulau Pinang, and Johor". Therefore, the purpose of this study is to uncover the factors that can significantly impact retirement planning behaviour among working adults in the private sector.

Due to the rapid population aging and strained pension systems around the world, many people practice insufficient retirement savings in their retirement life. Thus, financial problems during retirement become more and more crucial. In that case, every party, for instance, the government, educational establishments as well as religious organizations are required to be responsible for reducing financial problems during retirement. This can be achieved by encouraging people to have sufficient retirement planning.

Hence, this study investigates retirement planning behaviour as it can affect the efficiency of retirement planning. This study studies the effects of three factors, such as family education, financial literacy, and goal clarity, on retirement planning behaviour. This study can provide valuable perspectives to the government, educational establishments, and religious organizations on enhancing the retirement planning behaviour of working adults.

ABSTRACT

Retirement planning behaviour is a crucial practice for retirement savings to safeguard one's post-retirement life quality. This study focuses on assessing the influence of inadequate retirement planning behaviour on retirement savings. Therefore, the study investigates the relationship between retirement planning behaviour and factors, including family education, financial literacy, and goal clarity in the context of working adults in the private sector since they do not have any pension schemes but merely EPF contributions. As a result, this study is particularly centered on working adults employed in the private sector, who have been more vulnerable and mostly affected among the working population.

A total of 411 surveys had been gathered from regions, including Kuala Lumpur, Pulau Pinang, and Johor. Subsequently, Statistical Package for the Social Sciences (SPSS) version 27.0 was employed for data analysis. Several tests were performed, such as reliability test, consistency test as well as multiple linear regression analysis.

The results of the data analysis showed that financial literacy and goal clarity had significant influences on retirement planning behaviour. However, family education is reported to be insignificantly related to retirement planning behaviour. Thus, the implications are recommended to all relevant institutions with the purpose of promoting education among individuals to enhance their retirement planning behaviour.

CHAPTER 1: RESEARCH OVERVIEW

1.1 Introduction

This chapter provides an overview of retirement planning and the issues it presents, specifically in Malaysia. The research background provides depth and insight into this issue along with the problem statement, research objectives and questions, and the significance of study, to support this research. The researchers also provide justification as to why this particular scope of the study had been selected.

1.2 Research Background

The subject matter of private sector workers' retirement has gained significant attention globally over the past few years. Retirement planning is often shaped by an individual's personal values, knowledge and the surrounding environment.

Retiring is a multifaceted process that involves pre-retirement planning to ensure a smooth adjustment and transition. Burshtein et al. (2023), justifies this by classifying retirement planning into three primary phases: (a) retirement preparation, (b) retirement transition, and (c) retirement adjustment.

According to Kagan (2023), the process of retirement planning requires developing a solid financial plan that consist of investing, saving and allocating funds for one's own golden years. He further breaks down the components of retirement planning - identification of sources of income, assessment of expenses, implementation of a savings plan, administration of risks and assets, as well as the establishment of resources required to achieve individual retirement objectives.

In a global context, retirement planning is becoming an increasingly important issue as populations age and pension systems are put under strain. The World Economic Forum (2017) estimates that by 2050, there will be a $400 trillion gap in global retirement savings. This gap refers to the difference between the amount of money people will need to comfortably retire and the amount they have saved. Hence, it is evident that a sizable portion of the population will face financial challenges during their retirement years. Insufficient savings can lead to a diminished quality of life, increased dependence on government support, and difficulties in

covering basic living expenses. Apart from that, the growing gap places significant strain on existing pension systems, as they may struggle to provide adequate benefits to retirees. This burden often falls on governments, increasing public spending and potentially affecting economic stability.

This highlights the need for individual and governments to adopt proactive strategies when it comes to retirement planning, in order to bridge the gap. This also emphasizes the greater need for individuals to engage in early planning, saving and investing, and governments to reform pension systems, to create a sustainable and financially secure retirement for individuals worldwide.

The current population composition in Malaysia consists of 22.6 percent of the 'young age' population, who are of ages 0-14 years old, 70.0 percent of the 'working-age' population, who are of ages 15-64 years old, and 7.4 percent of the population aged 65 years and over, also known as the old age category (Department of Statistics Malaysia, 2023).

According to the Department of Statistics Malaysia (2020), the percentage of individuals in the old age category, has risen from 6.7% to 7.0% between 2019 and 2020. Similarly, the percentage of people in Malaysia who are aged 65 years or above has risen from 7.0% to 7.3% from 2021 to 2022 (Department of Statistics Malaysia, 2022). The latest population estimates confirm that this percentage has continued to increase to 7.4 per cent in 2023. Hence, we can clearly see an increasing trend in the old age population.

Additionally, according to the Department of Statistics Malaysia, (2016) the percentage of Malaysians aged 65 and above is projected to reach 14.5% of the population by 2040. This demographic shift is expected to put a strain on the country's social welfare system and highlights the need for individuals to plan for their retirement to ensure a financially sure and comfortable retirement.

Despite the importance of retirement planning, a significant number of working adults in Malaysia are unprepared for their retirement. Employees' Provident Fund (EPF) is a federally mandated organisation that oversees retirement planning and the required savings programme for Malaysia's private sector employees. It was revealed that approximately 3.6 million members of the EPF, have balances of less than RM1,000 in their accounts as of November 2021. (Saieed, 2022). Apart from that, to retire comfortably in Malaysia, Ali (2022) stated that individuals are advised to save a minimum of RM600,000 to fulfil their daily expenditures and achieve a comfortable retirement. Alarmingly, the majority of Malaysian retirees who solely

depend on EPF for retirement savings, may encounter severe financial difficulties, given that two-thirds of EPF members at the age of 55 have an account balance of less than RM50,000, which would be insufficient to cover their retirement expenses for approximately four and a half years without the additional passive income sources (Mohamad et-al, n.d.).

In this case, Malaysian individuals who are still working at the age of 50 must avoid making any large withdrawals from their EPF account to maintain a stable monthly income. Retirees should only withdraw necessary funds from their EPF account so that the remaining balance continues to accrue interest and accumulate returns. On the contrary, the Malaysian government led by Datuk Seri Ismail Sabri Yaakob, the former prime minister declared a special EPF withdrawal of RM10,000. It was aimed at striking a compromise between future savings and the urgent financial needs of individuals impacted by the Covid-19 pandemic, as many individuals were reported to be adversely affected economically and require support to build their lives during the Covid-19 recovery phase (Vethasalam, 2022). As the result, since 2020, a total amount of RM145 billion was withdrawn under the Covid-related EPF withdrawals. Vethasalam (2022) stated that only 19 per cent or 2.5 million members have reached the recommended minimum requirement of RM 240,000 by the age of 55, and only 3 per cent or 350,000 members have achieved the required savings threshold of RM600,000. This underlines a critical need to educate and encourage working adults to plan for their retirement.

This study focuses on the private sector primarily due to the current ongoing debate regarding the social safety net for employees in the private sector. Private sector workers do not have pension schemes and the only social security net they have is EPF contributions. These contributions can, however, be withdrawn as early as 55 years old. Additionally, these tough economic times have compelled many citizens to withdraw their money from EPF to support the increased cost of living. Most senior citizens have depleted their savings post-retirement as well. (Chau, 2022). Malaysia's Former Human Resources Minister, Datuk Seri M Saravanan, proposed turning the Social Security Organisation (SOCSO) into a social safety net for private sector workers beyond the age of 60. He urged SOCSO to investigate the viability of transforming the contributions from private sector workers aged 60 years and older, into a post-employment fund (Tatt, 2022).

Thus, researching this topic can help identify the obstacles and challenges working adults face in preparing for retirement. Moreover, the initiative proposed by Datuk Seri M Saravanan would require an increase in SOCSO contributions. Hence, it is crucial to determine and analyse the factors affecting retirement planning to comprehend their acceptance of this initiative. As such, the behaviour of working individuals in the private sector in terms of retirement planning is the topic of this study.

Apart from that, three states in Malaysia, namely, Wilayah Persekutuan Kuala Lumpur, Pulau Pinang and Johor have been selected for this research. These states are known as national economic hubs and have a high concentration of private sector companies, which in turn, employ a large number of Malaysians (Department of Statistics Malaysia, 2020). Therefore, as elucidated, the private sector employees from these three states will be the centre of this study in identifying the factors that affect retirement planning among working adults.

1. 3 Problem Statement

Retirement planning is an important procedure that assists individuals to organize their future financial prospects once they step into retirement. In the case of Malaysia, the retirement age is 60 years old as defined by the Malaysian Labor Law (Teh & Sapuan, 2018).

However, retirees have run into challenges where neither the government nor private organizations are able to provide sufficient support during their retirement years, which may extend from the age of 60 to as long as one lives. This is because retirees aim to maintain or improve their post-retirement lifestyle, meanwhile the Malaysian government is tasked with ensuring the well-being of its growing population. Nonetheless, there are several concerns and issues that Malaysians must confront in order to achieve a sustainable retirement lifestyle (Teh & Sapuan, 2018).

For instance, according to EPF statistics in 2020, it has been measured that merely 19 per cent of the total membership have succeeded in saving the recommended minimum amount of retirement fund, which is RM240,000, by the age of 55. Concerningly, 3.6 million members have less than RM1,000 in their EPF account, at the same time, 6.1 million members' current account balances are below RM10,000. (The Star Online, 2022). This statistical finding leads to the inference that the great majority of Malaysian individuals may lack the financial

capability to achieve this retirement fund benchmark by the time of their retirement. Teh and Sapuan (2018) indicated that the Central Bank of Malaysia and the EPF revealed that 88% of EPF contributos earn less than RM5,000 per month. This income inadequacy is reflected in retirement savings, where individuals are expected to have accumulated approximately RM240,000 by age 55, significantly impacting their pre-retirement lifestyle. Additionally, stagnant incomes and increased consumption, driven by factors like inflation and rising costs, pose further challenges for retirement planning and financial security in Malaysia.

Apart from that, Malaysia will suffer poverty among the elderly population if the government fails to take appropriate action to address the issues. According to Daniele (2023), 51 percent of the EPF contributors under 55 years old have less than RM10,000 savings in their EPF account. The government also concerningly announced that 81 percent of the EPF contributors will not have sufficient amount of savings to live above the poverty line after their retirement. Thus, this proves that a majority of the Malaysians do not have adequate retirement savings to retire comfrotably. Khan et al (2017) mentioned that 50 percent of retirees exhausted their retirement fund within 5 years and an astonishing 70 percent of retirees finished their retirement fund within 10 years of retirement. Alarmingly, 14% of retirees deplete their retirement fund within just 3 years of retirement. Hence, those with insufficient retirement funds will need to extend careers or even continue working after retirement to support their daily expenses (Huong, 2022). As mentioned by Iskandar (2022), an increasing number of retirees are seeking return into the workforce, with roughly 80 percent falling within the 50 to 60 age group, and this trend is expected to see a 25 percent annual growth in senior citizens seeking employment. This surge in interest among older individuals to extend their working years is primarily driven by their need to supplement their income in order to manage their expenses and cope with the rising cost of living.

To address the issue of insufficient retirement funds among Malaysian retirees, the national budget will incorporate the expenses related to the retirement phases, however, this approach may not be entirely effective as relying solely on public funding could increase the government's financial burden as evidenced by the government spending approximately RM26.6 billion on the pensioners in 2019 (Zulfaka & Kassim, 2021).

Furthermore, many Malaysians possess low levels of financial capability, coupled with a lack of knowledge pertaining to money management and a tendency to overlook financial planning and savings, for instance, implications for saving, retirement planning, mortgages,

and other decisions. Consequently, a substantial proportion of the population, amounting to roughly 36 per cent, faces the challenge of having a low savings in their retirement funds. This inadequacy in financial capability poses a significant risk to prospective retirees, who may confront insufficient financial resources and inadequate healthcare provisions during their retirement phase (Business Today, 2022). Since the medical costs for an 80-year-old are twice as high as for a 60-year-old, and the lack of productivity growth in the healthcare sector poses challenges as these costs are unlikely to decrease despite advancements in medical science prolonging life expectancy (Kuek, 2019).

Moorthy (2012) highlighted the Life Insurance Association of Malaysia (LIAM) mentioned that younger employed individuals currently view retirement planning as a daunting task given its long-term nature. Those in their twenties believe that they are too young to initiate retirement planning, while those in their thirties and forties presume that their savings in the Employee Provident Fund (EPF) are sufficient for retirement. However, upon reaching the age of 55, a considerable number of individuals encounter difficulties in retiring comfortably, as their retirement planning was initiated too late. Mooney et al (2021) indicated that the importance of initiating retirement planning early to guarantee sufficient savings for post-retirement living expenses. Late retirement planning can result in physical and cognitive challenges for the elderly. It is essential to take into account individual and familial factors such as unforeseen personal circumstances or alterations in family dynamics, healthcare and housing uncertainties, and potential shifts in public policies while preparing for retirement. Although retirement planning may present difficulties, proactive early planning and setting achievable objectives can enhance the likelihood of enjoying a comfortable retirement (Li et al, 2021).

Besides that, Tomar et al. (2021) mentioned the significant influence of early childhood experiences and interactions within peer groups, such as family members on the future goals and motivations required to successfully accomplish tasks. The financial planning of individuals is partially shaped by the knowledge and experiences gained from close relatives. However, the majority of Malaysians tend to suffer long-lasting deficiencies that contribute to unfavorable outcomes due to their parents who fail to establish high levels of self-control in their children during their formative years (Kimiyagahlam et al, 2019). Children who raised in households with low levels of self-control may have difficulty managing their own behaviour and emotions, which can lead to poor decision-making and impulse control later in life. This can have a adverse impact on their financial planning, leading to behaviour such as

overspending, accumulating excessive debt, and failing to save for retirement. This may hinder their future financial decision-making abilities (Hauff et al, 2020).

Given the critical issues of insufficient planning and preparation for retirement funds in Malaysia, it has raised concerns for many Malaysian individuals who are uncertain about their post-retirement financial security. Meanwhile, Malaysia's shift towards an ageing nation and the increasing costs of living also serves as the backdrop for this study. This denotes the need to alter existing financial strategies. Despite the importance of retirement planning, many working adults in Malaysia are having inadequate behaviour in their retirement planning, highlighting the need for education and encouragement (Yun, 2018). Hence, this study aims to investigate and discuss the factors that may affect retirement planning in Malaysia, to create awareness among society about its importance and provide insights into the key factors.

1.4 Research Objectives

General Objective:

The primary objective is to determine the factors affecting the effectiveness of retirement planning among working adults in the private sector in Pulau Pinang, Kuala Lumpur, and Johor.

Specific Objective:

1. To examine whether family education is significantly related to retirement planning.
2. To analyse whether financial literacy significantly related to individual retirement planning.
3. To determine whether goal clarity significantly related to retirement planning behaviour.

1.5 Research Questions

1. Is family education significantly related to retirement planning?
2. Is there a significant relationship between financial literacy and retirement planning?
3. Is the goal clarity significantly related to retirement planning behaviour?

1.6 Significance of studies

This study aims to determine the factors affecting retirement planning behaviour among working adults in the private sector. By reinforcing the factors that affect retirement planning, this research can benefit individuals and help them to be more prepared for their financial security after retirement.

First and foremost, the results of this study can benefit policymakers to develop retirement planning initiatives that are more efficient and policies that contrubite to better retirement planning outcomes. This study may identify gaps in financial literacy among individuals, stressing the necessity for policies and educational initiatives to enhance financial literacy levels among the general population. Using this information, policymakers can develop interventions that improve financial education and awareness, enabling individuals to make informed decisions when it comes to retirement planning. The findings of this research can also help to identify systemic setbacks such as lack of information available to retiree.

Next, this study benefits retirement planning service providers. With the knowledge of the factors influencing retirement planning decisions, service providers can develop more customized offerings that cater to the specific preferences and priorities of different individuals. This can involve creating different service tiers or options that accommodate various risk profiles, investment preferences, or retirement goals. By utilizing the study's insights, financial advisors can improve the overall client experience. This can involve offering more relevant advice, aligning services with individual preferences, and ultimately increasing client satisfaction and trust.

Thridly, this study contributes to the existing body of knowledge on retirement planning and further adds to the comprehension of factors that influence retirement planning. The findings fo rthis study can be used to develop new models and frameworks that explain retirement planning. Additionally, specific measures to increase retirement planning, savings and investings can be identified. This study also surves as a reference and guide for future research on this topic.

Finally, this study provides the government with an understanding of the current retirement planning situation and identify areas of improvement to better support the citizens. The development of programs and policies, will encourage retirement planning among working adults and ensure that citizens have the necessary resources to achieve their retirement goals.

It is important for policymakers, financial planners and the government to understand these factors in order to prepare a more holistic retirement planning program that considers cognitive biases and other behavioural factors that can obstruct effective retirement planning.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

In this chapter, we will review the relevant past studies and theories to examine the relationship between the selected independent and dependent variables. Based on this, a conceptual framework has been developed, to provide a clear view. The hypothesis of this study will be discussed, and a few research gaps have been identified that we aim to bridge by conducting this research.

2.2 Underlying Theories

Theory of Planned Behaviour

This theory proposes that an individual's intention to exhibit a behaviour is influenced by theirperceptions of behavioural control, subjective standards, and attitude towards the behaviour. In the context of retirement planning, an individual's attitude towards retirement planning, the influence of social norms, and their perceived control over planning for retirement may affect their intention to engage in retirement planning. (Ajzen, 1991)

The Theory of Planned Behaviour (TPB) is a commonly used social psychological theory for examining retirement planning behaviour. It posits that an individual's intention to engage in a behaviour is influenced by three main factors: their attitude towards it, the social pressure to either do or not do the behaviour (subjective norm), and their perceived ability to perform the behaviour (perceived behavioural control). Many studies have applied TPB to retirement planning andhave discovered that perceptions of behavioural control, subjective standards, and attitudes all play crucial roles in defining a person's intention. to plan for retirement (Griffin et al. , 2012). For instance, Griffin et al. (2012) discovered that having a positive attitude toward retirement planning, a high level of perceived control, and supportive societal norms towards retirement planning were associated with a greater likelihood of engaging in retirement planning. TPB can thus be used to identify the factors that influence retirement planning behaviour and to develop interventions that encourage participation in retirement planning activities.

Family Education Theory

The theory suggested that parent education programmes, especially using behavioural techniques, are effective in improving the behaviour of pre-adolescent children. In retirement planning, Those with family education who are more aware about how early the future will arrive tend to be more prepared in terms of saving and taking proactive planning measures. (Ulupui et al, 2022).

Family Education is a type of education that involves the whole family with the aim of improving the educational outcomes and well-being of all family members. these programmes provide parents with the skills for behaviour shaping. Family education programmes that aim to improve relationships and communication within the family can also contribute to positive behaviour outcomes by promoting a supportive and positive family environment (Charles et al, 2003). Programmes for behavioural parental education focus on outward behaviour and aim to reduce undesirable behaviour while enhancing desirable behaviour. These programmes give parents the know-how to successfully mould their children's conduct. Additionally, by building a supportive and uplifting home environment, family education programmes aimed at enhancing intergenerational connections and communication can promote good behavioural outcomes (Charles et al, 2003).

Financial Literacy Theory

This theory suggests that individuals with higher levels of financial literacy have better financial decision-making abilities and behaviours. In retirement planning, financial literacy may influence an individual's ability to plan for retirement, understand the risks associated with various investment options, and make informed decisions regarding retirement savings. (Lusardi & Mitchell, 2014)

Financial literacy has been identified as a crucial skill for working adults to manage and monitor their finances in preparation for retirement as it can be used to make informed decisions via interpretation and the use of financial information. Nonetheless, several studies have suggested that the younger generations have a lower level of financial literacy and are less likely to plan for retirement (Lim et al., 2021). This emphasises the importance of introducing financial literacy at an early age to facilitate retirement planning. It is necessary to

ensure that people have the knowledge and skills necessary to make sound financial decisions and plan for retirement (Lim et al., 2021).

Goal Setting Theory

This theory proposes that individuals who set specific and challenging goals are more likely to achieve them. In the context of retirement planning, individuals who set clear and specific retirement goals may be more motivated to engage in retirement planning activities and save for retirement. (Locke & Latham, 2002)

The idea of goal setting theory is a widely accepted psychological technique that has been used in many areas of human behaviour, including retirement planning. The hypothesis suggests that setting specific and challenging goals can result in better performance and motivation. Studies have demonstrated that individuals who set clear and measurable retirement objectives are more likely to save and invest more for their retirement. Additionally, the theory highlights the importance of feedback and self-confidence in achieving goals. Additionally, Liu et al. (2022) discovered that establishing clear retirement goals positively influences retirement planning behaviour in a study of working adults in China. Goal-setting theory provides a useful framework for understanding how individuals can better prepare for retirement by setting specific retirement goals. People can raise their motivation, direct their efforts, and monitor their progress toward their desired retirement lifestyle by creating precise goals. Furthermore, feedback and self-efficacy are crucial in keeping motivation and momentum toward retirement goals.

2.3 Review of the variables

Dependent variable – Retirement Planning Behaviour

Retirement planning behaviour pertains to the actions, choices, and attitudes individuals adopt when preparing for their financial stability during retirement. It encompasses the establishment of specific objectives, active engagement in saving and investing for retirement, the acquisition of financial knowledge, the management of investment risks, the estimation of future expenses, the assessment of retirement options, and the regular evaluation and adjustment of plans (Hassan et al, 2016). Murari et al (2021) mentioned that engagement in retirement planning behaviour is of paramount importance for individuals to achieve financial security and uphold their desired lifestyle throughout retirement. It empowers individuals to assume control over their financial future, mitigates stress, and fosters overall well-being. In addition, Lal and Singh (2022) show the importance of having effective retirement planning as it provides broader societal benefits, for instance, a reduction in the need for welfare programs and the encouragement of financial stability. People can work toward a comfortable and fulfilling retirement by actively engaging in retirement planning behaviours (Mustafa et al, 2017).

Practicing retirement planning behaviour could become a lifetime endeavour to remain financially stable in the future. Behaviour for retirement planning is influenced by a few variables. Most Malaysian individuals only start making retirement plans when they are getting close to retirement age. But, due to the hurried retirement preparation, the savings will be insufficient (Fan et al, 2022). Faezah et al (2017) highlighted the importance of retirement planning behaviour since it may increase one's self-assurance in managing life and encourage retirees to be more optimistic about post-retirement life as well as with proper retirement planning, individuals will feel more secure and at ease. Proper retirement planning is compulsory to have comprehensive planning and appropriate mental symmetry. Kumar et al (2019) defined retirement planning as a one-time strategic investment choice that will impact life quality. Since the numerous recent changes in the financial market restructuring, inflation rate, and growing medical costs, the immediate necessity for retirement planning has increased. However, there is less portion of Malaysian who have sufficient savings to maintain their living standards after retirement. To conclude, it is crucial to identify the factors' effect on accomplishing retirement planning goals.

Although a there a numerous studies researching retirement planning, there is a lack of research that is directed towards the Malaysian private sector. Most of the existing research on retirement planning has selected the general population as their sample. However, considering the fact that the private sector in Malaysia employs a sizeable amount of the population, it is essential to comprehend how private sector employees engage in retirement planning in order to establish policies that would improve retirement planning initiation and results nationwide. Hence, this research investigates the factors that affect retirement planning behaviour in the private sector, to bridge the gap.

Independent variable – Family Education

Family education is a systematic procedure of educating family members about various important life-related subjects, for instance, mental health, general well-being, and interpersonal relationships (Härkönen et al, 2017). Liu and Yang (2018) defined family education as parents teaching and guiding their children in the process of family interaction and it enables to help family members to develop critical knowledge and skills to enhance their overall well-being and improve interpersonal relationships. Thus, according to Widyaningtya and Suhartono (2021), a positive correlation exists between family education level and retirement planning behavior. The findings suggested that children's behavior is greatly influenced by their parents, especially when parents foster open discussions about financial issues, educate children to preserve their pocket money, and participate them in family financial decision-making processes. In general, it appears that financial habits cultivated during childhood that are effective can significantly aid adults in effectively managing their financial circumstances (Kimiyaghalam et al, 2017). Kimiyagahlam et al (2019) mentioned that family education is widely acknowledged as a powerful determinant in shaping children's behaviors, including their financial attitudes and practices.

Furthermore, Ulupui et al (2022) revealed that family education correlated with greater personal retirement savings, indicating that family education could be a main factor in encouraging individuals to save for retirement. The survey by Ulupui et al (2022) showed that family education holds a vital position in guiding their children towards adopting desirable conduct in all facets of life, including the realm of financial management. Studies indicate that individuals who possess a heightened awareness of the proximity of the future tend to demonstrate greater levels of readiness in terms of saving and engaging in proactive planning

behaviors. In the study, Koposko (2014) supports the notion that family education enhances individuals' financial literacy, fosters informed decision-making, and equips individuals with the required knowledge and skills for effective retirement planning. Moreover, family education promotes savings habits and a forward-looking perspective, encouraging individuals to prioritize retirement savings and engage in proactive planning. By fostering a culture of retirement preparedness, family education cultivates awareness, motivation, and a sense of responsibility toward ensuring a secure financial future in retirement (Sundarasen et al, 2016).

In contrast, the study conducted by Robertson-Rose (2020) indicated family education is not significant to retirement planning behaviour. It is because the parents' unpreparedness in financial planning for retirement served as a trigger for participants to become more aware of their own financial planning. Concerns about parents' financial well-being in retirement motivate them to engage in their own financial planning.

Regardless of the mixed results in the past studies, there is a lack of studies on this variable. Hence, further research is required to fully comprehend how an individual's family eductaion might encourage working adults to engage in more productive retirement planning. To close this gap, this research investigates the impact of family education on retirement planning, among other variables.

Independent variable – Financial literacy

Financial literacy is the knowledge to understand and use personal finance-related information in planning for the future (Gallego-Losada et al, 2022). Possessing financial literacy is expected to lead to better financial decision-making and studies have indicated that it influences retirement planning behaviour, thereby affecting retirement planning effectiveness. Thus, a significant influence of financial literacy on the effectiveness of retirement planning in Malaysia was discovered by Harahap et al (2022). Based on the research findings by Nga and Yeoh (2018), financial literacy is reported to have a noteworthy and positive impact on retirement savings behaviour in Malaysia. Agunga et al (2017) conducted a study involving 384 individuals from 29 state corporations and discovered that financial literacy was significantly associated with financial preparation for retirement. Selvadurai et al (2018) argued that the predominant emphasis on financial literacy education in retirement planning is

due to the comprehensive scope of financial knowledge, which encompasses aspects including savings, investment, and retirement planning.

Shukla et al (2021) have mentioned that employees who have greater knowledge of investment opportunities tend to display risk-taking behaviour, with their attitudes towards risk and perception of opportunity playing a role in their retirement saving behaviour. Moreover, enhanced financial literacy improves planning efficacy, increases confidence, and ultimately leads to efficient retirement planning. Anderson et al (2017) findings show that individuals with lower financial literacy levels are linked to decreased levels of participation in retirement planning and savings decisions. According to Bongini and Cucinelli (2019), the result reveals a strong positive correlation exists between high levels of financial literacy and participation in retirement schemes, for instance, lower levels of financial literacy may result in individuals making suboptimal financial decisions.

However, the survey conduced by Meir et al (2016) divided financial literacy into two components. It reported that actively seeking financial information is important for retirement planning. However, having general financial knowledge does not have a significant influence on retirement planning behaviour. In essence, being financially literate about retirement savings does not necessarily lead to a comprehensive understanding of pension features and total retirement savings.

Independent variable – Goal Clarity

Retirement goal clarity is critical in forecasting an individual's planning activities and subsequent retirement savings behaviour. Individuals with a strong sense of goal clarity tend to display greater assurance in their retirement planning endeavours. Moreover, by setting clear financial objectives related to retirement, individuals are more likely to work and save diligently to reach their financial goals (Lim et al, 2021). Therefore, goal clarity is a consequential determinant in retirement planning as it plays a vital role in guiding Malaysian individuals toward a fulfilling retirement (Fan et al, 2022). Tomar et al (2021)had reported that goal clarity recorded the highest significance in retirement planning. Jiménez et al (2019) reported that individuals may undertake a periodic review of their savings pattern to facilitate the development of a retirement plan that is suitable to their retirement objectives and priorities in the post-retirement phase. The impact of goal clarity on retirement planning was investigated by Herrador-Alcaide et al (2021) in their study of 452 Spanish employees over 60 years old and discovered that goal clarity has a notable effect on retirement planning.

In the context of Malaysia, the positive relationship between goal clarity and retirement planning is pointed out by Shanmugam and Abidin (2013). The findings recommended that working individuals should establish reasonable and attainable retirement goals to enhance self-assurance and readiness for retirement. Lim et al (2021) research, which surveyed 300 Malaysian employees during the pandemic, found that their results were consistent with earlier studies, however, retirement planning has become more challenging because of the pandemic's increased risks and uncertainties. The economic disruptions and reduced income levels caused by the pandemic highlight the importance of individuals being more sensitive and proactive in planning for retirement.

However, Shafee et al (2018) found that retirement goal clarity is not a significant factor in explaining retirement planning among 200 youths aged between 16 to 40 in Malacca. The reason behind this outcome could be attributed to the tendency of youth participants to have a lower likelihood of setting specific retirement goals and creating a comprehensive retirement plan.

2.4 Conceptual Framework

An extensive review of journal articles was conducted to carefully select the variables for this research. A conceptual framework was developed, drawing from the theories mentioned in section 2.3.
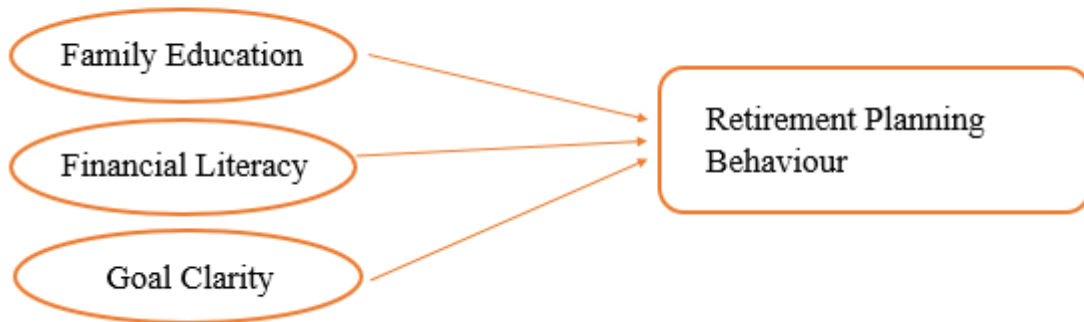
Figure 1: Proposed model of the factors affecting retirement planning among working adults in the private sector.

Note: Developed for this research

This conceptual framework aims to explain, predict, and understand the relationship between the selected exogenous and endogenous variables. In the research, we are interested in examining the impact of financial literacy, family education and goal clarity on retirement planning. This framework illustrates that these independent variables have a direct influence on an individual's retirement planning behaviour. As such, an increase in each variable is expected to lead to a corresponding increase in retirement planning, and vice versa, indicating a positive and linear relationship.

This research will utilize this framework to test the accuracy of the proposed relationships. Subsequently, hypotheses will be formulated based on this framework to guide this study in in the following section.

2.5 Hypothesis

Family Education and Retirement Planning behaviour:

Education level is positively associated with retirement planning behaviour. From the study by Supuyo et al (2022) found that individuals with more family education are more likely to engage in retirement planning. This may be because family education people have more financial literacy knowledge and are more interested in the importance of retirement planning.

Hypothesis 1:

Ho: There is no significant relationship between family education and retirement planning behaviour.

H1: There is a significant relationship between family education and retirement planning behaviour.

Financial Literacy and Retirement Planning behaviour:

Financial literacy and retirement planning are important in both variables. Recent research, including studies by Lusardi and Mitchell (2007) as well as Robb and Woodyard (2011), has stated that higher levels of financial literacy people are more interested to participate in retirement planning. This is because financial literacy provides people with the knowledge and abilities they need to effectively plan for their retirement, including budgeting, investing, and debt management. Improving financial literacy and promoting personal financial literacy is therefore essential to facilitate retirement planning behaviour.

Hypothesis 2:

Ho: There is no significant relationship between financial literacy and retirement planning behaviour.

H1: There is a significant relationship between financial literacy and retirement planning behaviour.

Goal Clarity and Retirement Planning behaviour:

Goal clarity, which means that the individual has a clear goal for retirement, has also been identified as an important factor in retirement planning. A report by Lusardi and Mitchell (2011) found that individuals who have clear goals for retirement are more likely to participate

in retirement planning. This may be because having clear goals helps individuals to better understand the importance of retirement planning and motivates them to take action.

Hypothesis 3:

Ho: There is no significant relationship between goal clarity and retirement planning behaviour.

H1: There is a significant relationship between goal clarity and retirement planning behaviour.

Overall, these studies suggest that family education , financial literacy, and goal clarity are important factors that influence retirement planning behaviour among working adults in Malaysia's private sector. By considering these factors, policymakers and employers can develop targeted interventions to promote retirement planning behaviour among this population.

CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter discusses the research methods employed by the researchers to carry out this study. This chapter provides insight into the research design, data collection and sampling design which include justification for the targeted population, sampling frame and sampling location, sampling size and sampling technique. Apart from that, for the research instrument, the researchers have chosen to analyse the questionnaire design, reliability, validity and ethical consideration, as well as to conduct a pilot test. The data analysis aspect of this chapter utilises SPSS to analyse the reliability test, internal consistency, convergent validity, discriminant validity using the Heterotrait-Monotrait (HTMT) Ratio and finally the R- square test.

3.2 Research Design

Research design can be qualitative or quantitative. Qualitative research methods can provide valuable insights into complex issues during times of change (Bryman, 2006). Quantitative research methods are also important for measuring numerical data and analysing statistical patterns (Bryman,2006).The systematic investigation of a phenomenon through the gathering of numerical data and application of mathematical, statistical, or computer techniques is known as quantitative research. (Adedoyin, 2020)

Hence, a quantitative method is applied in this study whereby it could examine the retirement planning behaviour of working individuals in Malaysia. Besides, studies using quantitative methods also can clearly explain the causality effects accurately, thus it enables researchers to have more understanding of their relationship (Mertler, 2021).

3.3 Data Collection

Primary Data is used in this study. Primary data is usually collected by the researcher directly through surveys. The use of primary data makes it possible to collecting specific data that may not be available from secondary sources and ensuring the data is relevant and accurate (Hawkins, 2017). Questionnaire surveys were utilized to obtain primary data. The questionnaires were sent to a target group of Malaysian working adults aged 25 to 59 Pulau Pinang, Kuala Lumpur and Johor.

3.4 Sampling Design

3.4.1 Target Population

Momoh (2022), defines a population as a well-defined large collection of objects or individuals that typically have a common characteristic. Due to the impracticality of gathering data from the population, researchers use a sample instead. A sample is a subset of the population and is more manageable in size. Researchers use the sample to make generalisations and draw conclusions about the population.

The scope of this research is working adults in the private sector in the states of Kuala Lumpur, Pulau Pinang and Johor. Thus, the target population for this study is Malaysian citizens who live in any of these 3 states.

3.4.2 Sampling Frame and Sampling Location

According to Glen (n.d.), the sampling technique is a complete list of all interests of the study. While the target population is an overarching category that offers a more general scope, the sampling frame is more specifically and narrowly defined. In this research, the sample frame comprises individuals who meet all the following criteria:

- Resides in Pulau Pinang, Kuala Lumpur or Johor
- Works in the private sector
- 25 to 59 years old.

3.4.3 Sampling Size

The sample size is the number of observations employed to determine the estimations of a particular population. The process of sampling refers to selecting a subset of individuals out of the population to gauge the attributes of the entire population. (Sample Size, n.d.) The selection of a proper sample size is one of the most important components of statistical analysis. The results will not be legitimate and will not accurately represent the population being investigated if the sample size is too small. In order to avoid this problem, the researchers will be adopting the Yamane formula to calculate the appropriate sample size.

$$n = \frac{N}{1 + N(e^2)}$$

N = Population Size

e = Acceptable Sampling error

n = Sample size

Additionally, the researchers will be using a confidence level of 95% and an acceptable sampling error of 0.05. Based on the specified age group of 25 to 59 years old, the number of employed person in 2021 for the state of Johor is 1,397,800, followed by Kuala Lumpur with 746,200 and Penang with 731,400 (Department of Statistics Malaysia, 2022). Hence, the population size or the total number of labour force in the three states is 2,875,400 people. We substitute all the information above into the formula as shown below:

$$n = \frac{2,875,400}{1 + 2,875,400(0.05^2)}$$
$$n = 399.999$$
$$n \approx 400$$

The minimum sample size needed is 399.99 people. We have rounded up the sample size to 400 respondents, So total 400 of respondents is the minimum requirements for this research.

3.4.4 Sampling Technique

This research uses stratified sampling. Stratified sampling, according to Dudovskiy (n.d.) is a form of probability sampling whereby the population is divided into a number of groups known as strata, which possess one or more common characteristic. These characteristics can vary according to the objective of the study. This research's' sample of 400 respondents was divided into 3 strata based on the selected states of Kuala Lumpur, Pulau Pinang and Johor respectively, as shown below:
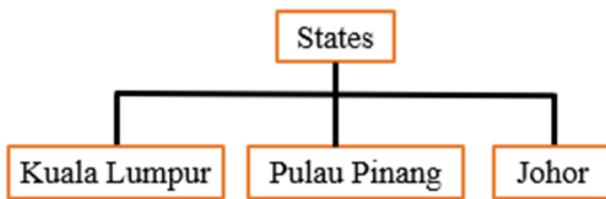
Figure 2．1: Stratified sampling adopted for this research

Additionally, there are two types of stratified random sampling, namely proportionate and disproportionate sampling. This research uses proportionate stratified random sampling technique, which requires the sample size in each stratum to be pre-determined in a proportionate manner. The sample size of a minimum of 400 respondents were proportionately divided among the 3 states, resulting in a minimum of 134 respondents per states. This study employs stratified random sampling to ensure equal representation of all three states. This study employs proportionate stratified random sampling to ensure equal representation of all three states.

Besides that, the surveys were made available online via Google Forms. For this research, the researchers will distribute the questionnaires via social media and by physically approaching respondents from these three states to collect their responses.

3.5 Research Instrument

3.5.1 Questionnaire Design

The research questionnaire consists of six main sections which are part one to part five. Part one consists of eight questions that focus on respondents' demographic such as age, gender, marital status, monthly income range and education level. Meanwhile, part two to part five comprises five to seven questions per section, each focusing on one variable. Part two will focus on the behaviour of retirement planning. Part three to part five will focus on the behaviour of family education, financial literacy, goal clarity.

Table 3.1: Summary of sources of questions

Variable	Source of Question
Retirement Planning	(Kimiyagahlam et al., 2019)
Family Education	(Kimiyagahlam et al., 2019)
Financial literacy	(Harahap et al., 2022) (Van Rooij et al., 2011) (Hamza and Arif, 2019)
Goal Clarity	(Tomar et al., 2021)

The questionnaire has a combined total of 28 questions. Part two to Part five uses five-point Likert scale responses. This is because The results from each questionnaire item are added up (summarised) during analysis to produce a composite score, which logically measures a single attribute overall. The respondent are to choose 1 for Strongly Disagree, 2 for Disagree, 3 for Neutral, 4 for Agree, or 5 for Strongly Agree to respond to the questions.

3.5.2 Questionnaires reliability

Questionnaire's reliability ensures the quality of the measurement procedure while collecting data. A trustworthy measurement process is required before the results can be regarded as legitimate. Questionnaires are one of the methods used to measure the hypothetical variable known as the construct. These surveys are a component of the measurement process. High reliability indicates that the instrument is consistent in measuring the same construct repeatedly, and the obtained results are dependable and trustworthy. The rigour and robustness of the research findings are improved by establishing reliability, this can ensure the consistency and stability of the measurement received from the questionnaire.

3.5.3 Questionnaires Validity

The degree to which a questionnaire accurately measures the construct or variable it is designed to measure is referred to as questionnaire validity. Validity is important in research as it ensures that the findings obtained from questionnaires accurately represent the true characteristics or attributes of the construct being studied. This research will establish face validity. By evaluating the questionnaires, experts or people who understand the topic and read through the questionnaire should be able to assess whether the inquiries adequately address the subject at hand. The second method is to have a psychometrician check the questionnaire and detect the errors.

3.5.4 Ethical consideration

Ethical consideration is an important instrument to ensure that the research is conducted ethically, with the well-being and rights of participants at the forefront.It serves to uphold academic or scientific integrity and safeguard the rights of study participants, as well as to make research more valid.. In the research, voluntary participation is the main concern as the participants are free to opt-in or out of the study. While all the participants will know the purpose of questionnaires benefits, hazards, and finances before deciding whether to join or not the questionnaires. Personally identifiable data is not collected and the participants' information will be hidden from everyone else.

3.5.5 Pilot Tests

Pilot tests were conducted before the questionnaire was sent to the relative respondents. A total of 40 sets of questionnaires were be distributed to working adults to get their responses and feedback. The survey were sent to respondents personally or through an online survey. This Pilot test was distributed using Google Form with a set of questionnaires. Pilot tests will help to reduce the error and obtain correct data before the main data is collected. It is because it reduces the quantity of open-ended, unclear questions and responses.

3.6 Data Analysis Tools

3.6.1 Descriptive analysis

Descriptive statistics are used to serve as the fundamental characteristics of the data in a study. This entails giving clear graphical analysis together with the sample and measurement summaries, which form the basis for almost all quantitative investigations of data (Aldrich, 2019). The descriptive analysis approach is used in this study to show how to compare demographic data simply. Demographic information including gender, age, marital status, place of employment, degree of education, and monthly salary is displayed using pie charts. Furthermore, sections B through F are composed of Likert-scale questions, as well as the mean, standard deviation, skewness, and kurtosis are used to describe the respondents.

3.6.2 Reliability Test

Reliability analysis is a method that can be used to study the properties of a measurement scale and its constituent items. This technique yields data on the correlations between the scale's constituent items and generates several commonly used scale reliability measures (Pallant, 2013). The Likert-scale questions presented in Sections B through F require the respondents to rate each question on a scale of 1 to 5. Hence, the reliability test is designed to determine how consistent and reliable participants' ratings are. In this research, SPSS is employed to evaluate the reliability of the study's findings (Pallant, 2013). Once the researcher selects the items to be included and provides the appropriate statistics, the analysis can be executed relatively easily using SPSS. In this study, internal consistency is measured using Cronbach's alpha, which is the most common type of reliability analysis. Cronbach's alpha values in the range of 0.60 and above are considered acceptable and good. For instance,

Cronbach's alpha coefficient value of 0.70 or higher is considered good, while a value of 0.90 or higher is excellent (Pallant,2013). The general guidelines for interpreting Cronbach's alpha coefficient value are as follows:

Table 3.2: The rule of thumb for Cronbach's alpha coefficient value

Alpha (α) Coefficient Range	Strength of Association
<0.60	Poor
0.60 to 0.70	Moderate
0.70 to 0.80	Good
0.80 to 0.90	Very Good
>0.90	Excellent

Source: Hair, Babin, Money and Samouel, (2003).

3.6.3 Preliminary Data Screening

3.6.3.1 Multicollinearity

The first part of the preliminary data screening is multicollinearity. Multicollinearity was defined by Aminu and Shariff (2014) as the association between two or more independent variables. As a result of the strong correlation between variables, which will increase standard error, it is crucial to keep an eye out for multicollinearity. The outcomes of the regression analysis are therefore no longer trustworthy. The two primary methods to quantify multicollinearity are the tolerance value and variance inflation factor (VIF). There is no multicollinearity issue with the model when the value of VIF is between 1 and 10.

3.6.3.2 Normality Test

The second part in the preliminary data screening is normality tests. The study conducted by Aminu and Shariff (2014) showed that the normality test is an assumption for sturctural equation model and statistical analysis.

Skewness and kurtosis are the primary techniques used in this study to examine the data normality. According to Kim (2013), if a survey has more than 300 respondents, the values of skewness and kurtosis are deemed between -2 and +2 and -7 and +7, respectively, for the data to be considered normal.

Next, the second method to check the data normality is through the histogram. The shape of histogram shall be symmetrical and in bell-shaped if the data is normally distributed. In addition, the highest frequency of the curve is located at the midpoint, gradually decreasing as it extends towards both ends.

Then, the third method to check the data normality is normal probability plot, as known as normal Q-Q plot. In this approach, the X-axis represents the observed values, while the Y-axis represents the expected values for a normal distribution. Thus, a linear pattern in the graph indicates the data is in normal distribution.

3.6.3 Inferential Analysis

The utilization of an inferential analysis enables researchers to deduce logical conclusions from data collected through various tests and to generalize the results derived from a sample back to the population from which it was drawn. In this research, we have incorporated statistical technique, using multiple linear regression in the evaluation and analysis of the gathered data.

3.6.3.1 Multiple Linear Regression

The statistical method of multiple linear regression is used to estimate the outcome of a dependent variable based on multiple independent variables (Pallant, 2013). The model allows researchers to determine the significance, magnitude, and direction of the beta coefficient and also facilitates the analysis of the influence of an independent variable on the dependent variable when monitoring for other independent variables (Pallant, 2013). In addition, the multiple linear regression model provides a powerful tool for understanding the complex relationships between multiple variables in statistical analysis. The expression for the multiple linear regression model is as follows:

$$\widehat{RPB}_i = \beta_0 + \beta_1\ FE_i + \beta_2\ FL_i + \beta_3\ GC_i + \mu i$$

Where,

RPB = Retirement Planning Behaviour

FE = Family Education

FL = Financial Literacy

GC = Goal Clarity

Based on the equation above, the multiple linear regression analysis will be conducted. It is assumed that all the independent variables have a significant influence to the dependent variable.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

The study utilized the SPSS v27 software to conduct the data analysis and present the findings to achieve the objectives of the study. The dataset included a total of 410 sets of surveys from eligible respondents who met the particular requirements. Various analytical techniques were performed to derive informative results. Descriptive analysis was employed to summarize and describe the data, while scale measurement was used to assess the validity of the data. Moreover, inferential analysis was utilized to explore the relationships between different variables. The outcomes obtained from the SPSS will be further elaborate and discussed in the following sections.

4.1 Descriptive Analysis

In this part, the primary objective is to provide clear and accurate research results. To facilitate a better understanding, graphical representations, for instance, tables and pie charts will be employed for the result presentation. Thus, the descriptive analysis will be first conducted so the data is able to understand easily. In Section A, survey questionnaire is first analyzed using a descriptive analysis for the demographic information. The data that was taken from Sections B and C is also subjected to a descriptive analysis. The tables and pie charts used in the subsequent analytical steps serve to show the data.

4.1.1 Respondent Demographic Profile

This study compasses twelve distinct demographic data categories, including age group, gender, marital status, working states, monthly income range, education level, retirement planning, planned retirement age, financial advisor, EPF savings amount, retirement saving programme, and required retirement funds. Each category is evaluated individually in the following sections.

Table 4.1 Demographic Group

Demographic Group	Demographic Category	Distribution Frequency	Distribution Percentage (%)
Age Group	25-29	58	14.1
	30-34	51	12.4
	35-39	57	13.9
	40-44	57	13.9
	45-49	61	14.9
	50-54	50	12.2
	55-59	76	18.5
Gender	Male	207	50.5
	Female	203	49.5
Marital Status	Married	216	52.7
	Widowed	18	4.4
	Separated	33	8.0
	Divorced	34	8.3
	Single	109	26.6
Working States	Pulau Pinang	133	32.4
	Kuala Lumpur	143	34.9
	Johor	134	32.7
Monthly Income Range	Below RM2,999	56	13.7
	RM3,000-RM4,999	128	31.2
	RM5,000-RM6,999	127	31.0
	RM7,000-RM8,999	77	18.8

	Above RM9,000	22	5.4
Education Level	No any Certificate	13	3.2
	Primary	16	3.9
	Secondary	81	19.8
	Diploma, STPM or Equivalent	101	24.6
	Bachelor's Degree	146	35.6
	Master's Degree and above	46	11.2
	Doctorate and Above	7	1.7
Retirement Planning	Yes	268	65.4
	No	142	34.6
Planned Retirement Age	Under 55 years old	54	13.2
	55 – 60 years old	140	34.1
	61 – 65 years old	135	32.9
	Over 65 years old	81	19.8
Financial Advisor	Yes	100	24.4
	No	272	66.3
	Not Sure	38	9.3
EPF Savings Amount	Below RM10,000	41	10.0
	RM10,000 – RM99,999	57	13.9
	RM100,000 – RM199,999	67	16.3
	RM200,000 – RM299,999	115	28.0
	Above RM300,000	130	31.7
Retirement Saving Programme	Yes	151	36.8
	No	223	54.4
	Not Sure	36	8.8
Required Retirement Funds	Less than RM500,000	32	7.8
	RM500,001 – RM1,000,000	82	20.0

	RM1,000,001 – RM2,000,000	208	50.7
	More than RM2,000,000	88	21.5

4.1.1.1 Age Group

Table 4.2 *Descriptive Analysis for Age Group*

Age Group	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
25 – 29	58	14.1	58	14.1
30 – 34	51	12.4	109	26.5
35 – 39	57	13.9	166	40.4
40 - 44	57	13.9	223	54.3
45 – 49	61	14.9	284	69.2
50 – 54	50	12.2	334	81.4
55 - 59	76	18.5	410	100.0

Figure 4.1 *Descriptive Analysis for Age Group*

What is your age?　Apakah umur anda?　您属于哪个年龄范围?
410 responses
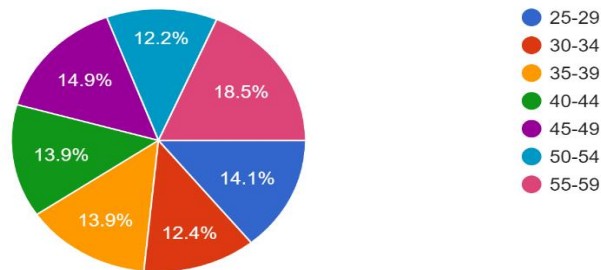
First, the responses are divided into groups according to what age ranges they fall under.

14.1% (58 respondents) of the participants, as shown in Table 4.2 and Figure 4.1, are between

the ages of 25 and 29. Of the participants, 51 respondents, or 12.4%, are between the ages of 30 and 34. Then, the age brackets of 35 to 39 and 40 to 44 both had the same number of participants, 13.9% (57 responses). Participants aged 45 to 49 make up 14.9% (61 replies). Finally, 12.2% (50 respondents) and 18.5% (76 respondents) of the participants are between the ages of 50 and 54 and 55 to 59, respectively.

4.1.1.2 Gender

Table 4.3 *Descriptive Analysis for Gender*

Gender	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Male	207	50.5	207	50.5
Female	203	49.5	410	100.0

Figure 4.2 *Descriptive Analysis for Gender*
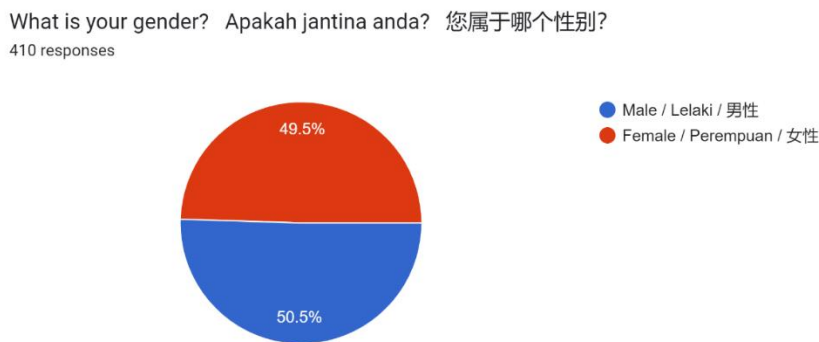
Besides the age group, the respondents are categorized based on their gender. Table 4.3 shows that 410 working adults take part in the survey. According to both Table 4.2 and Figure 4.2, 50.5% (207 respondents) of the participants are male, meanwhile, 49.5% (203 respondents) of the participants are female. As a result, there are slightly more male participants compared to female respondents.

4.1.1.3 Marital Status

Table 4.4 *Descriptive Analysis for Marital Status*

Marital Status	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Married	216	52.7	216	52.7
Widowed	18	4.4	234	57.1
Separated	33	8.0	267	65.1
Divorced	34	8.3	301	73.4
Single	109	26.6	410	100.0

Figure 4.3 *Descriptive Analysis for Marital Status*

What is your marital status?　Apakah status perkahwinan anda?　您属于哪个婚姻状况?
410 responses

● Married / Kahwin / 已婚
● Widowed / Kematian Pasangan / 丧偶
● Separated / Pisah / 分居
● Divorced / Cerai / 离婚
● Single / Bujang / 单身
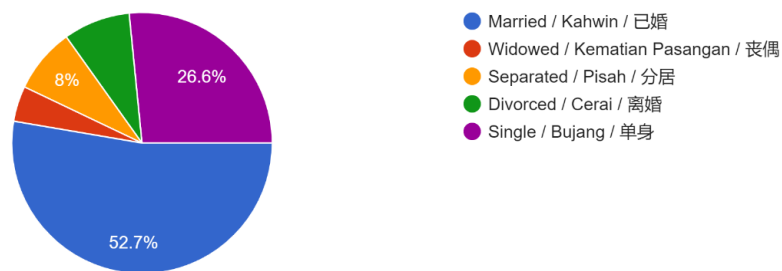
Marital status is the third demographic data to be abalysed. According to Table 4.4 and Figure 4.3, 52.7% (216 respondents) of the participants are married. Then, only 4.4% (18 respondents) are widowed and 8% (33 respondents) and 8.3% (34 respondents) of the participants are separated and divorced respectively. Lastly, 26.6% (109 respondents) of the participants are single.

4.1.1.4 Working States

Table 4.5 *Descriptive Analysis for Working States*

Working States	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Pulau Pinang	133	32.4	133	32.4
Kuala Lumpur	143	34.9	276	67.3
Johor	134	32.7	410	100.0

Figure 4.4 *Descriptive Analysis for Working States*
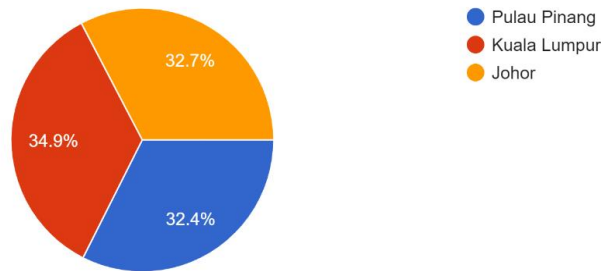
Fourthly, the respondents are also categorized based on their working state. According to Table 4.5 and Figure 4.4, the participants are categorized into three categories. 32.4% (133 respondents) of the participants are working in Pulau Pinang. Next, 34.9% (143 respondents) of the participants are working in Kuala Lumpur. At the same time, 32.7% (134 respondents) of the participants are working in Johor.

4.1.1.5 Monthly Income Range

Table 4.6 *Descriptive Analysis for Monthly Income Range*

Monthly Income Range	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Below RM2,999	56	13.7	56	13.7
RM3,000 – RM4,999	128	31.2	184	44.9
RM5,000 – RM6,999	127	31.0	311	75.9
RM7,000 – RM8,999	77	18.8	388	94.7
Above RM9,000	22	5.4	410	100.0

Figure 4.5 *Descriptive Analysis for Monthly Income Range*
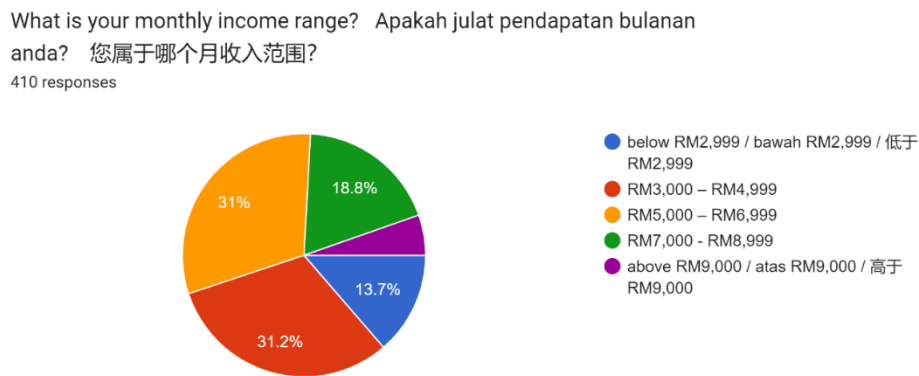
The fifth part is the monthly income range. According to Table 4.6 and Figure 4.5, 13.7% (56 respondents) of the participant's income is below RM2,999. 31.2% (128 respondents) of the participant's income is from RM3,000 to RM4,999 and 31% (127 respondents) of the participant's income is from RM5,000 to RM6,999. Then, 18.8% (77 respondents) of the participant's income is from RM7,000 to RM8,999. The least number of respondents' incomes is above RM9,000 since only 5.4% (22 respondents) of the total participants are recorded.

4.1.1.6 Education Level

Table 4.7 *Descriptive Analysis for Education Level*

Education Level	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
No any certificate	13	3.2	13	3.2
Primary	16	3.9	29	7.1
Secondary	81	19.8	110	26.9
Diploma, STPM or equivalent	101	24.6	211	51.5
Bachelor's Degree	146	35.6	357	87.1
Master's Degree and above	46	11.2	403	98.3
Doctorate and above	7	1.7	410	100.0

Figure 4.6 *Descriptive Analysis for Education Level*

What is your highest education level? Apakah tahap pendidikan tertinggi anda? 您目前属于哪个最高教育水平?
410 responses

- No any certificate/Tidak /没文凭
- Primary/Rendah/小学
- Secondary/Menengah/中学
- Diploma, STPM or equivalent / Diploma, STPM atau bersamaan / 文凭、STPM…
- Bachelor's Degree / Ijazah Sarjana Muda / 学士学位
- Master's Degree and above / Ijazah Sarjana dan atas / 硕士学位
- Doctorate and above / Doktor dan ke…
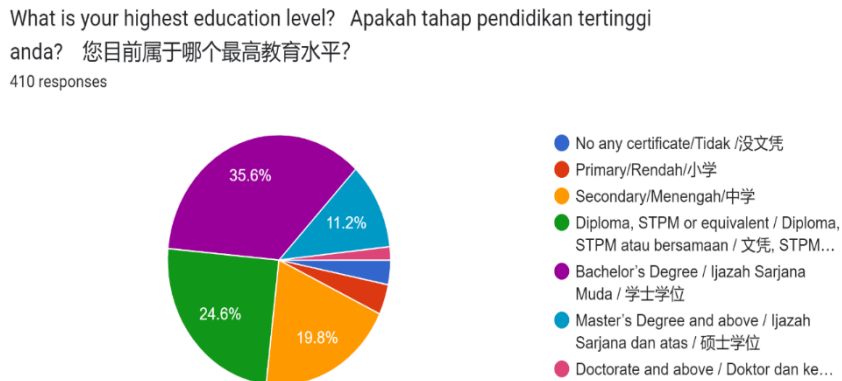
Besides the monthly income range, the respondents are also categorized based on the education level that they belong to. According to Table 4.7 and Figure 4.6, 3.2% (13 respondents) of the participants do not possess any educational certificate. 3.9% (16 respondents) of the participants have completed Primary education, while 19.8% (81 respondents) have attained a Secondary education level. There are 24.6% (101 respondents) of the participants hold a Diploma, STPM, or equivalent qualification. Meanwhile, 35.6% (146 respondents) of the

participants have obtained a Bachelor's Degree and 11.2% (46 respondents) of the participants achieved a Master's Degree and above, as well as, there are a small percentage of participants, 1.7% (7 respondents), who have obtained a Doctorate education level or above.

4.1.1.7 Retirement Planning

Table 4.8 *Descriptive Analysis for Retirement Planning*

Retirement Planning	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Yes	268	65.4	268	65.4
No	142	34.6	410	100.0

Figure 4.7 *Descriptive Analysis for Retirement Planning*

Have you started planning for your retirement? Sudahkah anda mula merancang persaraan anda? 请问您已经开始计划您的退休生活了吗?
410 responses

Yes / Ya / 有
No / Tidak / 没有

34.6%

65.4%
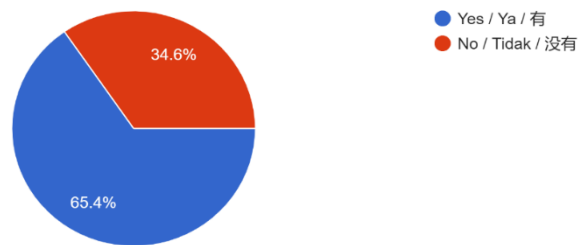
The seventh part is retirement planning. According to Table 4.8 and Figure 4.7, over half of the respondents have started planning for retirement as they account for 65.4% (268 respondents) of the total participants. On the other hand, merely 34.6% (142 respondents) of the participants have not started planning for retirement.

4.1.1.8 Planned Retirement Age

Table 4.9 *Descriptive Analysis for Planned Retirement Age*

Planned Retirement Age	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Under 55 years old	54	13.2	54	13.2
55 – 60 years old	140	34.1	194	47.3
61 – 65 years old	135	32.9	329	80.2
Over 65 years old	81	19.8	410	100.0

Figure 4.8 *Descriptive Analysis for Planned Retirement Age*
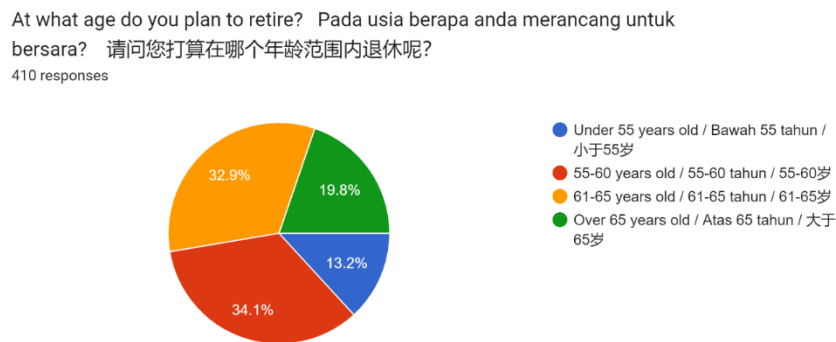
Furthermore, the respondents are categorized based on their planned retirement age. Table 4.9 and Figure 4.8 indicate that 13.2% (54 respondents) of the participants' planned retirement age is under 55 years old. 34.1% (140 respondents) of the participants decide to retire at 55 – 60 years old, while 32.9% (135 respondents) of the participants aim to retire at 61 – 65 years old. Lastly, there are 19.8% (81 respondents) of the participants plan to retire when they are over 65 years old.

4.1.1.9 Financial Advisor

Table 4.10 *Descriptive Analysis for Financial Advisor*

Financial Advisor	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Yes	100	24.4	100	24.4
No	272	66.3	372	90.7
Not sure	38	9.3	410	100.0

Figure 4.9 *Descriptive Analysis for Financial Advisor*
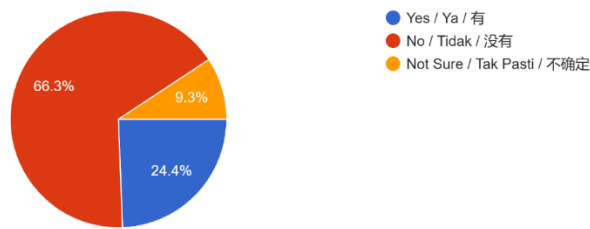
Besides the planned retirement age, the ninth category is financial advisor. According to Table 4.9 and Figure 4.10, 24.4% (100 respondents) of the participants have consulted with a financial advisor for retirement planning. However, the majority of the total participants, 66.3% (272 respondents) have not consulted with a financial advisor for retirement planning. Meanwhile, merely 9.3% (38 respondents) of the participants were not sure whether they have consulted with a financial advisor for retirement planning.

4.1.1.10 EPF Savings Amount

Table 4.11 *Descriptive Analysis for EPF Savings Amount*

EPF Savings Amount	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Below RM10,000	41	10.0	41	10.0
RM10,000 – RM99,999	57	13.9	98	23.9
RM100,000 – RM199,999	67	16.3	165	40.2
RM200,000 – RM299,999	115	28.0	280	68.2
Above RM300,000	130	31.7	410	100.0

Figure 4.10 *Descriptive Analysis for EPF Savings Amount*
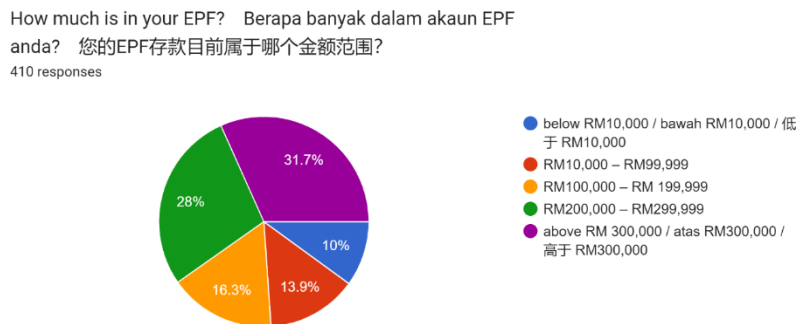
Then, the respondents are categorized by their EPF savings amount. According to Table 4.11 and Figure 4.10, the least number of respondents' EPF savings amount is below RM10,000 since only 10.0% (41 respondents) of the total participants are recorded. Next, 13.9% (57 respondents) of the participants reported their EPF savings amount to be within the range of RM10,000 – RM99,999. Additionally, 16.3% (67 respondents) of the participants' EPF savings amount fell within the range of RM100,000 – RM199,999. Furthermore, 28% (115 respondents) of the participants' EPF savings amounted to RM200,000 – RM299,999. Finally, the majority,

comprising 31.7% (130 respondents) of the participants, indicated their EPF savings amount to be above RM300,000.

4.1.1.11 Retirement Saving Programme

Table 4.12 *Descriptive Analysis for Retirement Saving Programme*

Retirement Saving Programme	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Yes	151	36.8	151	36.8
No	223	54.4	374	91.2
Not sure	36	8.8	410	100.0

Figure 4.11 *Descriptive Analysis for Retirement Saving Programme*
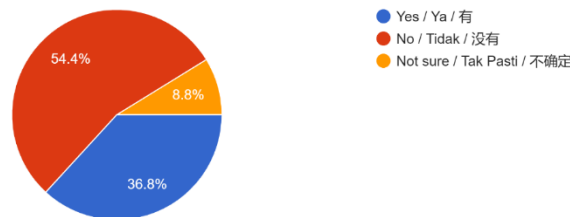
Also, the eleventh category is the retirement saving programme. According to Table 4.12 and Figure 4.11, 36.8% (151 respondents) of the participants have other retirement saving programmes besides EPF. However, most of the total participants, 54.4% (223 respondents) have no other retirement saving programmes besides EPF. Meanwhile, a small proportion, merely 8.8% (36 respondents) of the participants were not sure whether they have other retirement saving programmes besides EPF.

4.1.1.12 Required Retirement Funds

Table 4.13 *Descriptive Analysis for Required Retirement Funds*

Required Retirement Funds	Frequency	Percentage (%)	Cumulative Frequency	Cumulative Percentage (%)
Less than RM500,000	32	7.8	32	7.8
RM500,001 – RM1,000,000	82	20.0	114	27.8
RM1,000,001 – RM2,000,000	208	50.7	322	78.5
More than RM2,000,000	88	21.5	410	100.0

Figure 4.12 *Descriptive Analysis for Required Retirement Funds*
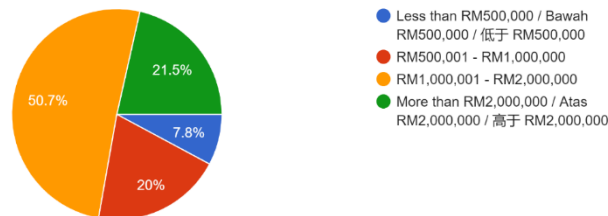
Finally, the respondents are also categorized based on their required retirement funds. According to Table 4.13 and Figure 4.12, the least number of the respondents require less than RM500,000 for their retirement as they are only 7.8% (32 respondents) of the total participants. Then, 20.0% (82 respondents) of the participants express a need for RM500,000 – RM1,000,000 to fulfil their retirement funds. Next, most of the participants, specifically 50.7% (208 respondents), require RM1,000,000 – RM2,000,000 for their retirement funds. Additionally, 21.5% (88 respondents) of the participants stated a necessity for more than RM2,000,000 to retire comfortably.

4.1.2 Central Tendencies and Dispersion Measurement of Constructs

In the following section, the responses related to the dependent variables and the independent variables gathered in Section B and Section C are examined. The analyses conducted included two fundamental statistical measures, including the mean, a measure of central tendency and the standard deviation, a measure of dispersion. Each variable is analysed individually.

4.1.2.1 Retirement Planning Behaviour

Table 4.14 *Central Tendencies Measurement of Retirement Planning Behaviour*

Question	Statement	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
RPB1	I have started planning for my retirement.	410	3.74 15	1.27088	3	5
RPB2	I spend time reviewing and adjusting my retirement plan.	410	3.50 49	1.36718	5	4
RPB3	I participate in workshops/semi nars on retirement planning.	410	3.27 56	1.45331	7	1
RPB4	I usually discuss with my families/friends	410	3.49 27	1.40770	6	3

	about retirement planning.					
RPB5	I am in a position to meet all of my financial goals for retirement.	410	3.51 95	1.42656	4	2
RPB6	I know the amount of money I will need for retirement time.	410	3.76 34	1.20720	2	6
RPB7	By the time I retire, I will have sufficient income to ensure the standard of living I need in retirement time.	410	3.86 83	1.19175	1	7

First, the questions related to retirement planning behaviour are evaluated. Table 4.14 shows that RPB7 has the highest mean (3.8683) and the lowest standard deviation (1.19175). RPB6 has the second-largest mean, 3.7634, and the smallest standard deviation, 1.20720. The third-highest mean, 3.7415, which relates to RPB1 and with a standard deviation of 1.27088, is then calculated. RPB5's mean of 3.5195, which ranks fourth overall, with a standard deviation of 1.42656. The fifth-largest mean, 3.5049, and the smallest standard deviation, 1.36718, are obtained by RPB2. RPB4's mean of 3.4927, which ranks sixth overall, has a standard deviation of 1.40770. Last but not least, RPB3 has the highest standard deviation of 1.45331 while having the smallest mean (3.2756).

4.1.2.2 Family Education

Table 4.15 *Central Tendencies Measurement of Family Education*

Questions	Statement	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
FE1	When I was a teenager, my parents had economical behaviour regarding financial issues.	410	3.8122	1.11507	4	3
FE2	When I was a teenager, my parents were discussing their personal financial decisions with me.	410	3.6878	1.15756	5	2
FE3	I learned financial knowledge from my parents' behaviour while I was a teenager.	410	3.8463	1.04580	2	6
FE4	When it comes to managing money, I do the	410	3.6854	1.16427	6	1

	same as my parents did in the similar situation.					
FE5	My parents encouraged me to save my money when I was a teenager.	410	4.1000	1.04997	1	5
FE6	When I think back to my teenager time, my parents had a regular saving for future.	410	3.8390	1.10054	3	4

Secondly, the questions related to family education are evaluated. Table 4.15 indicates that while FE5 has the highest mean (4.1000), its fifth-largest standard deviation (1.04997) is also the highest. With a mean of 3.8463 and a standard deviation of 1.04580, FE3 has the second-highest mean. FE6 has the third-highest mean, 3.8390, with a standard deviation of 1.10054. With a standard deviation of 1.11507, FE1's fourth-largest mean of 3.8122 is the lowest. The mean and standard deviation for FE2 are 3.6878, the fifth-highest mean and 1.15756, respectively. The smallest mean, 3.6854, and biggest standard deviation, 1.16427, are both possessed by FE4, which also has the smallest mean.

4.1.2.3 Financial Literacy

Table 4.16 *Central Tendencies Measurement of Financial Literacy*

Questions	Statement	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
FL1	I have the knowledge to understand simple financial terms.	410	3.9707	1.07158	2	5
FL2	I have the knowledge to calculate compound interest.	410	3.9439	1.08750	3	3
FL3	I have the knowledge to understand diversification risk of investment portfolios.	410	3.7098	1.12154	5	2
FL4	I have the knowledge to understand how inflation	410	3.9024	1.04437	4	6

	level can impact the value of money.					
FL5	I understand the concept of money illusion and how it can impact my purchasing power over time.	410	3.6634	1.20872	6	1
FL6	I understand the concept of time value of money.	410	3.9854	1.08097	1	4

Financial literacy is the third variable evaluated. Table 4.16 shows that FL6 has the highest mean (3.9985), but the fourth-highest standard deviation (1.08097). FL1 has the second-highest mean of 3.9707 and a standard deviation of 1.07158. The third-highest mean, 3.9439, which is associated with FL2 and has a standard deviation of 1.08750, is next. FL4 records the smallest value of standard deviation, 1.04437 and the fourth-largest mean of 3.9024. With a mean of 3.7098 and a standard deviation of 1.12154, FL3 has the fifth-highest average. FL5 has the smallest mean (3.6634), but it also has the biggest standard deviation (1.20872).

4.1.2.4 Goal Clarity

Table 4.17 *Central Tendencies Measurement of Goal Clarity*

Questions	Statement	Sample Size, N	Mean	Standard Deviation	Mean Ranking	Standard Deviation Ranking
GC1	I set specific goals regarding how much I will need to save for my retirement.	410	3.7610	1.22781	3	4
GC2	I think a great deal about quality of life I want to lead after retirement.	410	3.8317	1.22463	2	5
GC3	I have a clear vision of how my life shall be after retirement.	410	3.8927	1.25801	1	2
GC4	I have set clear goals	410	3.7146	1.24858	4	3

	for gaining informatio n about retirement.					
GC5	I have discussed retirement plans with my spouse, friends, or significant others.	410	3.639 0	1.37616	5	1

The last variable that will be assessed is goal clarity. Table 4.17 shows that GC3 has the biggest mean (3.8927) and the smallest standard deviation (1.25801). GC2 has the second-largest mean, 3.8317, and the lowest standard deviation, 1.22463. The third-highest mean, 3.7610 is GC1, with a standard deviation of 1.22781. The fourth-highest mean of 3.7146, which relates to GC4, with a standard deviation of 1.24858. The mean for GC5 is the smallest at 3.6390, while its standard deviation is the highest at 1.37616.

4.1.2.5 Summary of Central Tendencies Measurement

Table 4.18 *Summary of Central Tendencies Measurement*

	Variable	Mean	Standard Deviation
DV	Retirement Planning Behaviour	3.595 1	1.06691
IV	Family Education	3.828 5	0.77867
	Financial Literacy	3.862 6	0.82252
	Goal Clarity	3.767 8	1.04347

Table 4.18 is used to show the mean and standard deviation of the dependent variable (DV) and independent variable (IV). Financial literacy with a mean of 3.8626, ranked highest among the others and has a standard deviation of 0.82252. Family education obtained the second-largest mean of 3.8285 but records the smallest value of standard deviation, 0.77867. Moreover, the third-largest mean of 3.7678 is goal clarity and obtains a standard deviation of 1.04347. Lastly, retirement planning behaviour with the smallest mean of 3.5951, however, recorded the highest standard deviation of 1.06691.

4.2 Scale Measurement

4.2.1 Reliability Test

Table 4.19 *Cronbach's Alpha Reliability Analysis*

No	Types of Variables	Name of Variables	Cronbach's Alpha	Number of items	Reliability Level
1	Dependent Variable	Retirement planning behaviour	0.905	7	Excellent
2	Independent Variable	Family Education	0.796	6	Good
3	Independent Variable	Financial Literacy	0.840	6	Very Good
4	Independent Variable	Goal Clarity	0.881	5	Very Good

Table 4.19 reports the Cronbach's alpha value of each variable. According to Table 4.19, the independent variables, including financial literacy (0.840) and goal clarity (0.881) have very good reliability since their Cronbach's alpha is between 0.80 and 0.90. Cronbach's alpha of family education (0.796) shows that the reliability level is good since it is between 0.70 and 0.80. For retirement planning behaviour, the dependent variables, Cronbach's alpha is 0.905 therefore it is at excellent level of reliability. In a nutshell, all the scopes are very reliable since Cronbach's alpha of both dependent variable and independent variables are more than 0.70. Thus, all items are preserved and included in the study.

4.3 Preliminary Data Screening

The purpose of conducting preliminary data analysis is to make sure the study's findings are reliable. Therefore, the multicollinearity test and normality test are employed in the preliminary data analysis.

4.3.1 Multicollinearity Test

Multicollinearity happens when When the correlation between the independent variables is exceptionally high (Sekaran & Bougie, 2016). The multicollinearity issue in the model will cause the results to be unreliable because of the high error term. Therefore, this study employs two methods to detect the multicollinearity problem, such as variance inflation factor (VIF) and tolerance value. Sekaran & Bougie (2016) reported that if VIF is above 10 and the tolerance value is below 0.1, then, it is enough evidence to prove that model is suffered from the multicollinearity issue.

Table 4.20 *Tolerance Value and Variance Inflation Factor (VIF)*

Independent variables	Collinearity statistics	
	VIF	Tolerance
Family education	1.247	0.802
Financial Literacy	1.895	0.528
Goal Clarity	1.625	0.615

According to Table 4.20, VIF values of all the independent variables are below 10. Besides that, their tolerance values are above 0.1. Therefore, there is sufficient evidence to demonstrate that the independent variables do not exhibit multicollinearity.

4.3.2 Normality Test

After that, normality tests are conducted to evaluate the data normality. In this study, three methods, including the values of skewness and kurtosis, histogram as well as a normal Q-Q plot, are employed to determine the data normality.

Table 4.21 *Normality Test Result*

Variables	Skewness	Kurtosis
Dependent variable: **Retirement Planning Behaviour**	(0.625)	(0.736)
Independent variable 1: **Family Education**	(0.813)	0.400
Independent variable 2: **Financial Literacy**	(0.695)	0.124
Independent variable 3: **Goal Clarity**	(0.759)	(0.390)

Firstly, the data normality is determined by observing the value of skewness and the value of kurtosis in the data. Given that the sample size exceeds 300, the data is normally distributed if the value of skewness falls within the range of -2 to +2, while the value of kurtosis is within the range of -7 to +7 (Kim, 2013). As stated in Table 4.21, all the values of skewness are within the range of -2 to +2. In addition, retirement planning behaviour obtains the highest skewness value of -0.625, on the other hand, family education has the lowest skewness value of -0.813. Next, all the kurtosis values also fall within the range of -7 to +7. Family education obtains the highest kurtosis value of 0.400, on the other hand, retirement planning behaviour records the lowest value of kurtosis, -0.736. Because all skewness values are within the range of -2 to +2 and all kurtosis values are within the range of -7 to +7, the data for all the variables has a normal distribution.

Figure 4.13 *Histogram*
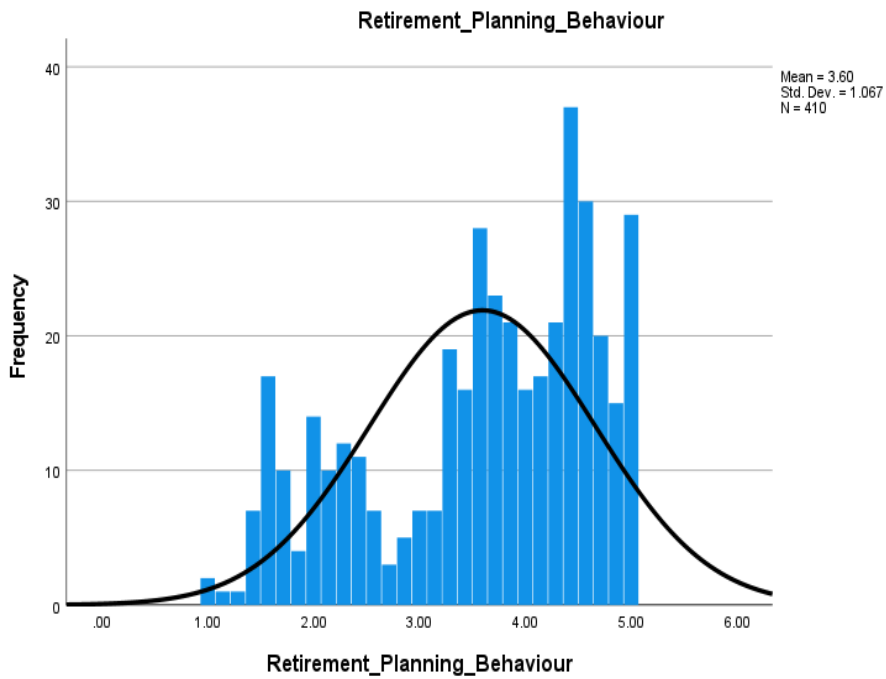
A histogram is used in the second section to check if the acquired data corresponds to the normality assumption. In many study studies, the quantitative data are presented using a histogram (Kaplan et al, 2014). Mishra et al (2019) stated that data distribution is considered normal if the histogram exhibits a substantially bell-shaped and symmetric pattern around the mean. Figure 4.13 reports the histogram created according to the data of the dependent variable, which is retirement planning behaviour. This histogram's distribution plot and overlay normal distribution curve are both constructed. Notably, the distribution plot matches the normal distribution curve in terms of its overall shape. Thus, the data is considered a normality distribution.

Figure 4.14 *Normal Q-Q plot*
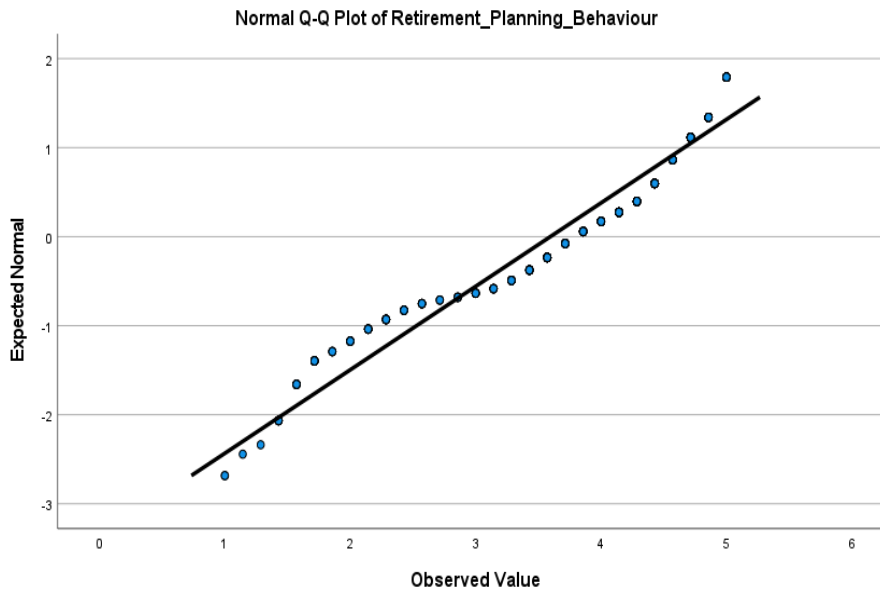
Thirdly, to illustrate the degree to which the data correspond to a normal distribution, a normal probability plot, such as a normal Q-Q plot, is used. The standard Q-Q plot is a scatterplot that contrasts the theoretical and empirical quantiles on the X and Y axes, respectively (Almeida et al, 2018). The theoretical quantile corresponds to the normal distribution, but the distribution of the observed or obtained data is followed by the empirical quantile. The quantiles also display a similar trend when the two distributions are almost identical (Ramachandran & Tsokos, 2015). Pallant (2013) came to the conclusion that a straight line in a normal Q-Q plot denotes a normal distribution. As a result, according to Figure 4.14, the data points are clustered together close to the diagonal line, forming an almost straight-line pattern. As a result, it is concluded that the data is normally distributed.

4.4 Inferential Analysis

4.4.2 Multiple Linear Regression

Table 4.22 *Coefficients to Retirement Planning Behaviour*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	Beta	**Std.Error**	**Beta**		
Constant	-0.032	0.175		-0.181	0.857
FE	0.045	0.043	0.033	1.046	0.296
FL	0.172	0.050	0.132	3.415***	<0.001
GC	0.741	0.037	0.725	20.190***	<0.001

H0: There is no significant relationship between the dependent variable (retirement planning behaviour) and the respective independent variable (family education, financial literacy, and goal clarity).

H1: There is a significant relationship between the dependent variable (retirement planning behaviour) and the respective independent variable (family education, financial literacy, and goal clarity).

Multiple Linear Regression Equation

Based on the coefficient value (β) in Table 4.22:

$RPB_i = -0.032 + 0.045FE_i + 0.172FL_i + 0.741GC_i$

Where,

RPB = Retirement Planning Behaviour

FE   = Family Education

FL   = Financial Literacy

GC   =   Goal Clarity

According to Table 4.22, family education is not significant while financial literacy and goal clarity are significant to contribute toward DV (retirement planning behaviour) at a 1% significance level. In addition, the p-value of family education (0.296) had not fulfilled the 99% confidence level, while the p-value of financial literacy (0.001) and goal clarity (0.001) had fulfilled the 99% confidence level. The results conclude that H0 for family education is not rejected while H0 financial literacy and goal clarity is rejected. Furthermore, the study examined the relationship between the three independent variables, including family education (FE), financial literacy (FL), and goal clarity (GC) as well as the dependent variable, which is retirement planning behaviour (RPB). According to the equation above, it concluded that the coefficient of family education, 0.045 indicates that a one-unit increase in family education leads to a 0.045 unit increase in retirement planning behaviour, ceteris paribus. Then, the coefficient of financial literacy, 0.172 indicates that a one-unit increase in financial literacy results in a 0.172 unit increase in retirement planning behaviour, ceteris paribus. Meanwhile, the coefficient of goal clarity, 0.741 indicates that a one-unit increase in goal clarity leads to a 0.741 unit increase in retirement planning behaviour, ceteris paribus. And, the constant term of retirement planning behaviour, -0.032 represents the baseline value of retirement planning behaviour when all independent variables are zero.

Table 4.23 *Ranking on Coefficient of Independent Variables*

Variable	Coefficient	Rank
Family Education	0.033	3
Financial Literacy	0.132	2
Goal Clarity	0.725	1

Table 4.23 indicates that the standardized coefficient contribution levels of each independent variable (IV) to the dependent variable (DV) are ranked to enable comparative analysis. Among the independent variables, goal clarity is the most influential factor affecting retirement planning behaviour, with the highest standardized coefficient value of 0.725. Then, the second-highest rank of contribution belonged to financial literacy with a standardized coefficient of 0.132. In contrast, family education has the least influence on retirement planning behaviour with a standardized coefficient value of 0.033.

Table 4.24 *Model Summary*

Model	R	R-Square	Adjusted R-Square	Std. Error of the Estimate
1	0.824	0.678	0.676	0.60740

Table 4.24 is a model summary that provides the overall strength of the independent variables (IV), family education, financial literacy, and goal clarity in explaining the dependent variable (DV), retirement planning behaviour. Firstly, R is 0.824 supporting a strong correlation between the dependent variable (DV) and the independent variables (IV). Furthermore, the R-Square value of 0.678 shows that approximately 67.80% of the variation in retirement planning behaviour can be defined by the variations in the independent variables. Meanwhile, it is important to note that 32.20% of the total variation in retirement planning remains unexplainable by the independent variables, including family education, financial literacy, and goal clarity. Thus, it concluded that there may be other significant variables that play a critical role in interpreting retirement planning, yet to be explored in this study. Moreover, the adjusted R-Square value of 0.676 is used to demonstrate the variation in the dependent variable (DV) impacted by the variation in the independent variables (IV), taking into account of the degrees of freedom. This adjusted R-Square represents 67.60% of the variation in retirement planning behaviour accounted for by the independent variables (IV), taking into consideration the model's possible complexity and constraints.

4.5 Summary

SPSS v 27 is utilized to perform the data analysis. It enables to analyse and summarize the collected data from the respondents. The report showed that the scopes in the survey questionnaire remain reliable. Furthermore, the model did not suffer from the multicollinearity issue, as well as the data is normally distributed. Besides, from the multiple regression analysis, there is only one independent variable, family education, which is not significantly related to retirement planning behaviour and the other two independent variables, financial literacy and goal clarity are significantly related to retirement planning behaviour.

CHAPTER 5: DISCUSSION, CONCLUSION, AND IMPLICATIONS

5.1 Introduction

The previous section analysed the data and results that were derived from the collected questionnaire responses. This chapter comprises of discussions and past studies that are consistent with the obtained results. Chapter 5 consists of the summary of research results, managerial implications, research limitations and recommendation for futuere research.

5.2 Summary of Statistical Analysis

Table 5.1 Summary of the statistical findings

Independent Variables	T-statistic	P-Value	Result
Family Education	1.046	0.296	Insignificant
Financial Literacy	3.415***	>0.01	Significant
Goal Clarity	20.190***	>0.01	Significant

Note: Developed for this research

According to Table 5.1, Family education is the only variable that has an insignificant relationship with the retirement planning behaviour. While, financial literacy and goal clarity have significant relationships with retirement planning behaviour. Therefore, these two independent variables are strong factors affecting retirement planning behaviour among working adults in the private sector, the case of Pulau Pinang, Kuala Lumpur and Johor.

5.3 Discussion on Major Findings

This section provides a detailed analysis of the research outcome, confirming its consistency with past research.

5.3.1 Family Education

Based on the results, there is insignificant relationship between family education and retirement planning behaviour among working adults in the private sector, the case of Pulau Pinang, Kuala Lumpur, and Johor. This is supported by Robertson-Rose (2020).

As concluded, most of the previous research suggesting a positive correlation between family education and retirement planning. Despite the emphasis on developing good financial habits in infancy, research shows that doing so does not significantly help individuals manage their finances in retirement. Instead of being influenced by their parents' financial education, concerns about their parents' financial well-being in retirement motivated individuals to engage in their own financial planning (Robertson-Rose, 2020). This gap between knowledge of the value of saving and application of that knowledge to actual retirement planning actions emphasises the intricate interaction of numerous factors influencing financial decision-making. In conclusion, there is insufficient evidence to prove that there is a direct relationship between family education and retirement planning behaviours.

5.3.2 Financial Literacy

It is also found that financial literacy has a significant relationship with the retirement planning behaviour among working adults in the private sector, the case of Penang, Kuala Lumpur, and Johor. This result is similar to the result of Nga & Yeoh (2018) and Bongini & Cucinelli (2019).

Individuals who have greater knowledge of investment opportunities tend to display risk-taking behaviour, with their attitudes towards risk and perception of opportunity playing a role in their retirement saving behaviour (Shukla et al, 2021). As in the research, respondents who understand the basic financial knowledge have a better retirement planning. As proven that most of the respondents are understanding the time value of money and simple financial terms, therefore leads to more desired to prepare their retirement funds. This significancy adapted that lower financial literacy levels are linked to decreased participation in retirement

planning and savings decisions (Anderson et al, 2017). Most of the respondentds are understanding for basic financial knowledge but for harder financial knowledge it reduces such as diversification of risk and money illusion. Follow the study by Gallego-Losada et al (2022) who concluded that financial literacy is the understanding and use of personal finance-related information for future planning. Therefore, the significant of financial literacy believed to have impact on good retirement planning behaviour.

5.2.3 Goal Clarity

The results also reveal a significant relationship between goal clarity and retirement planning behaviour among working adults in the private sector, the case of Pulau Pinang, Kuala Lumpur , and Johor. This is supported by Shanmugam & Abidin (2013) and Lim et al (2021)

Based on the findings, Individuals with clear retirement goals display greater assurance in planning and are more likely to work and save diligently (Lim et al, 2021). Most of the responses emphasized that a clear vision of goal of their goal but the way to reach the goal but the real actual they needed is unclear. As respondents had thinking less about how they achieve their target. Goal clarity is a consequential determinant in retirement planning, especially in the context of Malaysian individuals (Fan et al, 2022). Individuals should have a better and clearer goal to help them contribute to their retirement planning. To have a more details can help the retirement planning behaviour more specific and easer to achieve. Designing a realistic and doable retirement objective is so essential and has a big impact on improved retirement planning.

5.3 Managerial Implication

5.3.2 Financial Literacy

The findings of this research suggest that financial literacy is significant to retirement planning behaviour. As a practical implication, the government should establish programmes that promotes financial literacy and awareness on a national level. The purpose of this initiative is to improve the comprehension of investments, personal financial planning, and management, as well as retirement planning. This programme should be tailored to address specific needs of citizen of different age groups. Apart from tailoring the programme for working adults, the education minister should also integrate financial literacy into the education system.

The government could place emphasis towards policy measures directed towards eradicating financial illiteracy among the younger generation through financial education schemes. The government may collaborate with agencies or organisations that are dedicated to providing and improve financial literacy, by conjuring programmes that could serve as curricular activities for students to participate in.

Next, private sector employees could integrate retirement planning into training programs at work. Integrating retirement planning into training programs is a proactive approach to addressing the financial literacy gap and encouraging employees to take meaningful steps towards securing their retirement.

5.3.2 Family Education

The findings of this research suggest that family education is insignificant to retirement planning behaviour. Thus, working adults should take personal ownership to prioritize individual financial education and literacy initiatives, by attending workshops and seminars that empower individuals to make informed decisions about their own retirement. Working adults should prioritize early planning. Even if family education is not a significant factor, early planning can have a substantial impact on long-term financial security. Individuals should equip themselves with comprehensive knowledge and strategies, in order to ensure their own financial security and play pivotal role in fostering informed retirement planning behaviours within their families.

The attitudes and behaviours surrounding retirement planning are often shaped by family influences and cultural norms.

5.3.3 Goal Clarity

The findings of this research suggest that goal clarity is significant to retirement planning behaviour. As such financial service providers should incorporate goal clarity as a central element in their offerings and communication strategies. Recognizing the pivotal role of goal clarity in retirement planning behaviour and specific retirement goals. By emphasizing goal clarity, financial service providers can design personalized retirement plans that align with individual aspirations, fostering a more purposeful and effective approach to retirement planning.

Additionally, individuals seeking to enhance their retirement planning should consider seeking professional assistance, such as financial advisors. These experts can guide individuals in defining well-structured retirement goals, leading to more focused and successful retirement planning endeavours.

5.4 Limitation

A few limitations have been identified from this research. The first limitation is that the nature of this study is cross sectional. Retirement planning is a long-term process, as such, this study is constrained in its ability to capture the changes in variables over time.

The second limitation is that this research predominantly relies on quantitative research methods. as such it may not be able to fully capture the intricacies of retirement planning behaviour, and provide more accurate and deeper understanding of how the selected variables truly impact retirement planning behaviour.

The third limitation is that this research exclusively focused on the three states of Pulau Pinang, Kuala Lumpur and Johor. Thus, the conclusions drawn from this study may not fully capture the diversity of perspectives, and behaviours related to retirement planning among individuals from other states.

5.5 Recommendations

It is recommended that future studies adopt a longitudinal research design to observe behaviour evolvement. A comprehensive understanding of retirement planning calls for the observation of how each variable changes across different life stages, reflecting the changes in goal setting and financial circumstances.

Next, it is recommended that future studies adopt mixed-method approach to analyse the factors that affect retirement planning. The combination of quantitative and qualitative methodologies may add to the understanding how individuals approach retirement planning. By combining quantitative survey data with qualitative interviews, for example, researchers can triangulate findings and gain a more accurate understanding of respondents' true behaviours towards retirement planning.

It is also recommended that future research widen their geographic scope by encompassing more comprehensive representation of Malaysia as a whole or of other states. By including participants from a wider range of geographical backgrounds, researchers can obtain a more holistic understanding of retirement planning behaviours and tailor interventions to address the specific needs of diverse populations.

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Appendices

Appendix A: Questionnaire

PERSONAL DATA PROTECTION STATEMENT

Please be informed that in accordance with Personal Data Protection Act 2010 ("PDPA") which came into force on 15 November 2013, Universiti Tunku Abdul Rahman ("UTAR") is hereby bound to make notice and require consent in relation to collection, recording, storage, usage and retention of personal information.

Notice:

1. The purposes for which your personal data may be used are inclusive but not limited to:-

    ● For assessment of any application to UTAR
    ● For processing any benefits and services
    ● For communication purposes
    ● For advertorial and news
    ● For general administration and record purposes
    ● For enhancing the value of education
    ● For educational and related purposes consequential to UTAR
    ● For the purpose of our corporate governance
    ● For consideration as a guarantor for UTAR staff/ student applying for his/her scholarship/ study loan

2. Your personal data may be transferred and/or disclosed to third party and/or UTAR collaborative partners including but not limited to the respective and appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are related to the purposes and also in providing integrated services, maintaining and storing records. Your data may be shared when required by laws and when disclosure is necessary to comply with applicable laws.

3. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required.

4. UTAR is committed in ensuring the confidentiality, protection, security and accuracy of your personal information made available to us and it has been our ongoing strict policy to ensure that your personal information is accurate, complete, not misleading and updated. UTAR would also ensure that your personal data shall not be used for political and commercial purposes.

Consent:

1. By submitting this form you hereby authorise and consent to us processing (including disclosing) your personal data and any updates of your information, for the purposes and/or for any other purposes related to the purpose.

2. If you do not consent or subsequently withdraw your consent to the processing and disclosure of your personal data, UTAR will not be able to fulfill our obligations or to contact you or to assist you in respect of the purposes and/or for any other purposes related to the purpose.

3. You may access and update your personal data by writing to us at divyaxsri@gmail.com

Acknowledgment of Notice

[   ] I have been notified by you and that I hereby understood, consented and agreed per UTAR above notice.

[   ] I disagree, my personal data will not be processed.

…………………………

Name:

Date:

Questionnaire: Factors Affecting Retirement Planning Behaviour: The Case of UTAR Academic Staff.

Part 1: Demographic Information

1. What is your age?

- 25-29 years old
- 30-34 years old
- 40-44 years old
- 45-49 years old
- 50-54 years old
- 55-59 years old

2. What is your gender?

- Male
- Female

3. What is your marital status?

- Married
- Widowed
- Separated
- Divorced
- Single

4. What is your monthly income range?

- below RM2,999
- RM3,000 – RM4,999
- RM5,000 – RM6,999
- RM7,000 - RM8,999
- RM9,000 and above

5. What is your highest education level?

- Diploma, STPM or equivalent
- Bachelor's Degree
- Master's Degree
- Doctorate and above

6. Have you started planning for your retirement?

- Yes
- No

7. At what age do you plan to retire?

- Under 55 years old
- 55-60 years old
- 61-65 years old
- Over 65 years old

8. Have you consulted with a financial planner or advisor for retirement planning?

- Yes
- No
- Not sure

9. How much is in your EPF?

- below RM10,000
- RM10,000 – RM99,999
- RM100,000 – RM 199,999
- RM200,000 – RM299,999
- above RM 300,000

10. Do you have any other retirement saving programme besides EPF?

- Yes
- No
- Not sure

11. How much money do you think you will need for your retirement?

- Less than RM500,000
- RM500,001 - RM1,000,000
- RM1,000,001 - RM2,000,000
- More than RM2,000,000

Part 2: Retirement Planning

1 - Strongly disagree   2 - Disagree   3 - Neutral   4 - Agree   5 - Strongly agree

No.	Statement	1	2	3	4	5
1	I have started planning for my retirement.					
2	I spend time reviewing and adjusting my retirement plan.					
3	I participate in workshops/seminars on retirement planning.					
4	I usually discuss with my families/friends about retirement planning.					
5	I am in a position to meet all of my financial goals for retirement.					
6	I know the amount of money I will need for retirement time.					
7	By the time I retire, I will have sufficient income to ensure the standard of living I need in retirement time					

Part 3: Family Education

1 - Strongly disagree   2 - Disagree   3 - Neutral   4 - Agree   5 - Strongly agree

No.	Statement	1	2	3	4	5
1	When I was a teenager, my parents had economical behaviour regarding financial issues.					
2	When I was a teenager, my parents were discussing personal financial decisions with me.					
3	I learned financial knowledge from my parents 'behaviour when I was a teenager.					
4	When it comes to managing money, I do the same as my parents did in the similar situation.					
5	My parents encouraged me to save money when I was a teenager.					
6	When I think back to my teenager time, my parents had a regular saving for future					

Part 4: Financial Literacy

1 - Strongly disagree   2 - Disagree   3 - Neutral   4 - Agree   5 - Strongly agree

No.	Statement	1	2	3	4	5
1	I have the knowledge to understand simple financial terms.					
2	I have the knowledge to calculate compound interest					
3	I have the knowledge to understand diversification risk of investment portfolios					
4	I have the knowledge to understand how inflation level can impact the value of money					
5	I understand the concept of money illusion and how it can impact my purchasing power over time					
6	I understand the concept of time value of money					

Part 5: Goal Clarity

1 - Strongly disagree   **2 - Disagree**   **3 - Neutral**   **4 - Agree**   **5 - Strongly agree**

No.	Statement	1	2	3	4	5
1	I set specific goals regarding how much I will need to save for my retirement.					
2	I think a great deal about quality of life I want to lead after retirement.					
3	I have a clear vision of how my life shall be after retirement.					
4	I have set clear goals for gaining information about retirement.					
5	I have discussed retirement plans with my spouse, friends, or significant others.					

~ *Thank you for taking the time to complete this survey* ~

Appendix B: Summary of Central Tendencies Measurement

Central Tendencies Measurement of Retirement Planning Behaviour

Descriptives

Descriptive Statistics

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
RP1	410	3.7415	1.27088	-.783	.121	-.549	.240
RP2	410	3.5049	1.36718	-.486	.121	-1.055	.240
RP3	410	3.2756	1.45331	-.238	.121	-1.334	.240
RP4	410	3.4927	1.40770	-.529	.121	-1.065	.240
RP5	410	3.5195	1.42656	-.555	.121	-1.064	.240
RP6	410	3.7634	1.20720	-.735	.121	-.467	.240
RP7	410	3.8683	1.19175	-.841	.121	-.328	.240
Valid N (listwise)	410						

```
DESCRIPTIVES VARIABLES=FE1 FE2 FE3 FE4 FE5 FE6
  /STATISTICS=MEAN STDDEV KURTOSIS SKEWNESS.
```

Central Tendencies Measurement of Family Education

Descriptives

Descriptive Statistics

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
FE1	410	3.8122	1.11507	-.953	.121	.250	.240
FE2	410	3.6878	1.15756	-.653	.121	-.434	.240
FE3	410	3.8463	1.04580	-.682	.121	-.296	.240
FE4	410	3.6854	1.16427	-.721	.121	-.231	.240
FE5	410	4.1000	1.04997	-1.182	.121	.780	.240
FE6	410	3.8390	1.10054	-.817	.121	.001	.240
Valid N (listwise)	410						

Central Tendencies Measurement of Financial Literacy

Descriptives

Descriptive Statistics

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
FL1	410	3.9707	1.07158	-1.068	.121	.540	.240
FL2	410	3.9439	1.08750	-.874	.121	-.061	.240
FL3	410	3.7098	1.12154	-.653	.121	-.340	.240
FL4	410	3.9024	1.04437	-.723	.121	-.132	.240
FL5	410	3.6634	1.20872	-.691	.121	-.475	.240
FL6	410	3.9854	1.08097	-.951	.121	.105	.240
Valid N (listwise)	410						

Central Tendencies Measurement of Goal Clarity

Descriptives

Descriptive Statistics

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
GC1	410	3.7610	1.22781	-.699	.121	-.590	.240
GC2	410	3.8317	1.22463	-.703	.121	-.747	.240
GC3	410	3.8927	1.25801	-.892	.121	-.374	.240
GC4	410	3.7146	1.24858	-.658	.121	-.718	.240
GC5	410	3.6390	1.37616	-.671	.121	-.870	.240
Valid N (listwise)	410						

Summary of Central Tendencies Measurement

Descriptives

Descriptive Statistics

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Retirement_Planning_Behaviour	410	3.5951	1.06691	-.625	.121	-.736	.240
Family_Education	410	3.8285	.77867	-.813	.121	.400	.240
Financial_Literacy	410	3.8626	.82252	-.695	.121	.124	.240
Goal_Clarity	410	3.7678	1.04347	-.759	.121	-.390	.240
Valid N (listwise)	410						

Appendix C: Summary of Cronbach's Alpha Reliability Analysis

Cronbach's Alpha Reliability Analysis:
Retirement Planning Behaviour

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.905	.906	7

Family Education

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.796	.796	6

Financial Literacy

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.840	.841	6

Goal Clarity

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.881	.881	5

Appendix D: Multicollinearity Test

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	-.032	.175		-.181	.857					
	Family_Education	.045	.043	.033	1.046	.296	.275	.052	.029	.802	1.247
	Financial_Literacy	.172	.050	.132	3.415	<.001	.596	.167	.096	.528	1.895
	Goal_Clarity	.741	.037	.725	20.190	<.001	.815	.708	.568	.615	1.625

a. Dependent Variable: Retirement_Planning_Behaviour

Appendix E: Pearson Correlation

Correlations

Correlations

		Retirement_Planning_Behaviour	Family_Education
Retirement_Planning_Behaviour	Pearson Correlation	1	.275[**]
	Sig. (2-tailed)		<.001
	N	410	410
Family_Education	Pearson Correlation	.275[**]	1
	Sig. (2-tailed)	<.001	
	N	410	410

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

Correlations

Correlations

		Retirement_Planning_Behaviour	Financial_Literacy
Retirement_Planning_Behaviour	Pearson Correlation	1	.596[**]
	Sig. (2-tailed)		<.001
	N	410	410
Financial_Literacy	Pearson Correlation	.596[**]	1
	Sig. (2-tailed)	<.001	
	N	410	410

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

Correlations

Correlations

		Retirement_Planning_Behaviour	Goal_Clarity
Retirement_Planning_Behaviour	Pearson Correlation	1	.815**
	Sig. (2-tailed) .		<.001
	N	410	410
Goal_Clarity	Pearson Correlation	.815**	1
	Sig. (2-tailed)	<.001	
	N	410	410

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

Appendix F: Multiple Linear Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.032	.175		-.181	.857
	Family_Education	.045	.043	.033	1.046	.296
	Financial_Literacy	.172	.050	.132	3.415	<.001
	Goal_Clarity	.741	.037	.725	20.190	<.001

a. Dependent Variable: Retirement_Planning_Behaviour

Appendix G: Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.824[a]	.678	.676	.60740

a. Predictors: (Constant), Goal_Clarity, Family_Education, Financial_Literacy