

## Financial Security in Retirement: The Importance of Savings vs Earnings in Malaysia

Vilayudhan Krishnaveni, Zuroni Md Jusoh, Mohd Amim Othman  
& Norzalina Zainudin

Department of Resource Management and Consumer Studies, Faculty of Human Ecology,  
University Putra Malaysia, Malaysia

Corresponding Author Email: zuroni@upm.edu.my

**To Link this Article:** <http://dx.doi.org/10.6007/IJARBS/v14-i10/23273> DOI:10.6007/IJARBS/v14-i10/23273

**Published Date:** 17 October 2024

### Abstract

This manuscript delves into the intricate relationship between income and wealth retention in Malaysia's evolving economic landscape. It begins with an overview of life expectancy trends, emphasizing demographic shifts and economic challenges shaping financial planning. Individuals can establish a robust financial foundation by cultivating financial acumen—focusing on saving and strategic investments. This foundation shields them against unexpected setbacks and facilitates long-term wealth growth and goal attainment. Unfortunately, such planning remains voluntary and underutilized in countries like Malaysia. Financial literacy is pivotal in adequate retirement preparation, ensuring financial independence and a higher quality of life amid rising living costs and inadequate savings. Recent reforms, including raising the default retirement savings threshold and promoting annuity-based withdrawals, aim to enhance retirement security. However, diversification of post-retirement financial resources remains essential to mitigate the impact of inflation and maintain purchasing power. Social dynamics—such as family influence, peer interactions, and advice from financial experts—shape investment intentions. Moreover, future orientation is a crucial compass in personal finance, guiding individuals to align their current decisions with long-term goals. This manuscript provides valuable insights into wealth management dynamics, emphasizing that retaining wealth is as crucial as earning it.

**Keywords:** Financial Acumen, Retirement Planning, EPF, Wealth Management, Malaysia Economic Landscape.

### Introduction

A worrisome reality emerges in this ensemble of financial systems worldwide: only one-third of adults worldwide actually understand basic financial knowledge, thereby portraying a massive gap and underpinning innumerable challenges across nations (Lusardi et al. 2019). Considering the general financial illiteracy that pervades, urgent attention has to be given to its need, followed by tailored-made measures. A closer look at the relationship between financial literacy and socioeconomic characteristics reveals just how strongly inequalities are

baked into place, often concentrated among the affluent, well-educated, and actively banking (Munisamy et al., 2022). These findings underline a severe challenge: higher financial literacy allows people to make better financial decisions, save adequately for retirement, and reduce the likelihood of loan default (Lu et al., 2024).

However, even across high-income countries, financial literacy is low, particularly in certain social groups. On the other hand, the S&P Global FinLit Survey presents a rather grim picture of overall financial illiteracy and huge differences across countries and demographics. Moreover, using financial services, having a bank account, or using credit cards is generally related to higher financial literacy (Fong et al., 2021). For example, Norway, Denmark, and Sweden have high financial literacy levels of approximately 71%. In contrast, countries like Yemen, Albania, and Afghanistan are far worse off, with less than one in seven being financially literate (Adiandari et al., 2023).

Moving on to Malaysia, which has its financial path, there is a great deal of ground to be covered. It is a junction of culture, economy, demographics, and complex other factors pointed out by Loke in 2017. The level of financial literacy among Malaysians thus becomes very important, influencing the financial decision-making process related to retirement planning—a critical issue in a nation marked by both economic dynamism and cultural diversity (Selvadurai et al., 2018).

This paper critically examines financial literacy's challenges, strategies, and significance in Malaysian retirement planning. If financial literacy is related to retirement readiness, its relevance is exponentially significant, considering Malaysia's unique financial position (Lusardi et al., 2019). Given these issues in a local context, the connection between financial literacy and retirement readiness becomes critical for individual financial security and the economic stability of the country as a whole.

### **Life Anticipation in Malaysia**

Malaysia, located in Southeast Asia, has a rich tapestry of cultural diversity set against the backdrop of brisk economic progress. The country's societal environment is being shaped by an increasing life expectancy resulting from advances in healthcare, education, and lifestyle (Haron et al. 2019). Malaysia's life expectancy statistics have increased significantly in recent decades, owing to its persistent efforts to improve healthcare facilities and raise health awareness among its citizens (Wan-Fei et al., 2023). Since the early 1960s, when life expectancy hovered around 60 years, Malaysia has significantly increased to roughly 75 years for both genders (Peng et al., 2015). This growing trend demonstrates the country's dedication to nurturing a healthier population and serves as a critical factor in changing paradigms for retirement planning and financial security (Tope et al., 2017).

Malaysia's population landscape has been developing fast in recent years, with an observable increase being accounted for among its elderly. This demographic shift, defined by the phenomenon that more and more individuals of 60 years plus populate our country in terms of push, presents a possible vision regarding finance. It poses challenges and equally provides opportunities (Mondejar et al., 2021). The rapid ageing of the population points to a new horizon in terms of economics that will mould an entirely different set of economic dynamics within this country (Mohd Siti et al., 2019). With increasing life expectancy, owing

to progress in healthcare and enhanced living standards, there has been a considerable demographic kind shift felt around the globe. In particular, predictions reveal that Malaysia's popularity will witness an immense growth of individuals categorized as elderly who find themselves deteriorating due to old age (Nor & Ghazali, 2021).

This demographic shift has far-reaching implications for the country's several financial aspects. The increasing number of older people automatically leads to higher demands on social welfare systems and pension schemes – therefore, sustainable policies about financial needs arise (Meier & Werding, 2010). It also changes the behaviours and patterns in their expenditures; therefore, one has to direct financial services and some products to cater to this demographic development (Tao et al., 2022). Asia-Pacific's older population is a high priority for community education, which entails financial planning and retirement features due to their increased likelihood of enjoying an extended post-retirement lifestyle. Also, this causes more opportunities for economic improvement by creating customized financial products and services aimed at the tastes and necessities of the ageing population, promoting innovation regarding financial planning schema seniors (Zhou et al., 2023).

Therefore, these predictions have pointed out that this demographic shift will define the country's financial landscape in myriad approaches (Cristea et al., 2020). With the elderly population, there is likely to be a significant burden on current Social Security systems and pension funds, leading to some adjustments and possible reformation to ensure sustainability (Nagarajan & Andrew, 2023). The financial aspect of this ageing tendency necessitates a severe need for proactive initiatives that underscore the necessity to amplify the level of over-50s' participation in learning about money and creating sound retirement planning strategies, as well as building innovative solutions within finance that are responsive to shifting needs among members of the geriatric community (Selvadurai et al. 2018). Malaysia is moving fast towards becoming an ageing nation, signalling many challenges in the financial sector and boundless opportunities for advancement associated with economic robustness and overall financial health for Golden Age individuals (Haron et al., 2019).

Moreover, economic factors such as urbanization and employment patterns influence this transformation (Chen et al., 2014). With more people moving to cities for better economic prospects, citizens face a complex effect on their family life and finances, affecting savings trends and retirement preparations, thereby impacting the demand for particular financial services that suit an ageing population. These factors collectively orchestrate a profound demographic shift in Malaysia that calls for holistic strategies within the financial sector to adjust and accommodate people's changing requirements (Bloom et al. 2010; Abdul Jakit et al. 2023).

### **Financial Acumen**

Financial literacy is like a well-conducted symphony, composed of vital competencies that allow individuals to navigate the increasingly complex world of personal finance (Lone & Bhat, 2022). The core of this symphony is budgeting, which serves as the conductor toward financial harmony. Budgeting is more than just saving money; it is the disciplined allocation of resources that fosters sound financial decisions and cultivates a sense of control and satisfaction, ultimately reducing financial stress and enhancing emotional well-being (Nhu et

al. 2019). This financial discipline ensures long-term stability and security, enabling individuals to live within their means and prepare for a comfortable retirement.

Savings form the bedrock of financial security and represent more than just accumulating money over time. They embody an attitude and habit that provides a financial cushion during difficult times, offering emotional reassurance and psychological peace of mind. Saving wisely allows individuals to pursue future goals with flexibility and confidence, making savings a compass in their financial journey (Fiergbor, 2020; Kendzia & Borrero, 2022). This financial cushion not only ensures continued financial stability but also contributes to life satisfaction and emotional resilience, especially as one approaches retirement.

Investing acts as the maestro in this financial symphony, bringing the potential for strategic growth and wealth accumulation. Successful investing requires financial acumen, understanding of risk tolerance, and insight into market dynamics. It also involves managing psychological factors like fear, greed, and uncertainty (Massol et al. 2015). By transforming savings into wealth, investing enriches not only the financial portfolio but also one's sense of fulfillment and future security. This dynamic interplay between saving and investing gives individuals the power to create a secure and enriching future, forming the foundation for both financial and emotional well-being (Alshebami & Aldhyani, 2022).

Financial literacy, therefore, extends beyond mere monetary management; it profoundly influences an individual's overall well-being, particularly in retirement planning (Selvadurai et al. 2018). Understanding investment options, tax implications, and retirement schemes like the Employees Provident Fund (EPF) allows Malaysians to create tailored savings plans aligned with their retirement goals. Effective budgeting and financial planning further solidify retirement security by ensuring consistent savings and minimizing unnecessary expenses. Financial literacy also impacts emotional and psychological states, with financial milestones boosting self-esteem and sound financial management strengthening relationships. Fostering financial knowledge, planning, and risk management, Malaysians can enhance their overall well-being and enjoy a comfortable post-working life (Bai, 2023; Rahman et al. 2021).

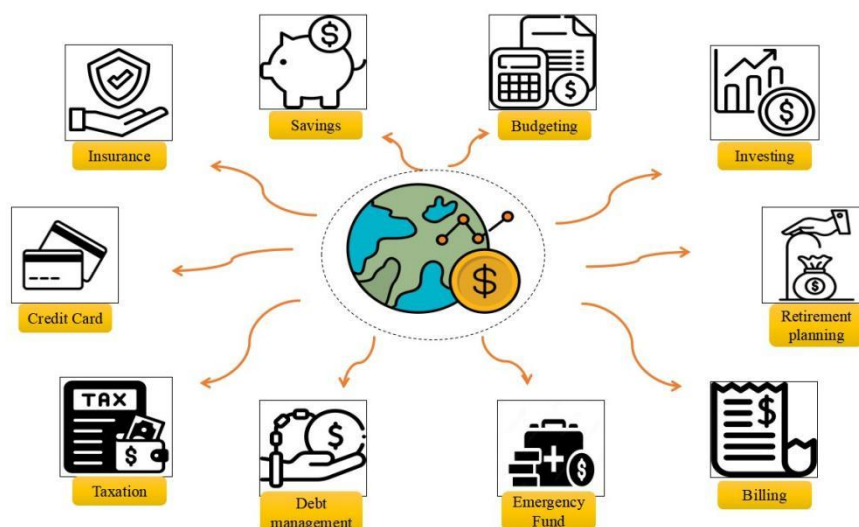


Figure 1. Various types of financial literacy which would benefit each individual.

### Retirement Stratagems

Faced with the impending challenge of an ageing population, some countries have implemented various retirement programs to address the growing financial needs of their elderly citizens. Ranging from government pensions to mandatory savings schemes, these programs demonstrate the diverse ways in which financial security in old age can be achieved. This adaptability of retirement programs should reassure us about their resilience in the face of demographic shifts.

For instance, in Japan, the two prominent institutions have been represented by the NPS and the EPI. While the NPS is a compulsory scheme covering every resident between the ages of 20 and 59, the EPI applies to employees in the public and private sectors. With Japan undergoing one of the most dramatic demographic changes among countries, these plans are now under more significant stress. This can be balanced by the fact that Japan raises the retirement age and gives tax incentives that encourage private savings, highlighting the multi-faceted approach towards retirement planning (Igarashi et al. 2021; Noland, 2000).

The New Zealand (NZ) Superannuation is a publicly offered pension scheme in NZ that provides residents aged 65 and above with a safety net. While NZS subsidizes 40% of the average New Zealander's income, no compulsory contribution retirement savings scheme exists. In order to fill the central gap in retirement income, the KiwiSaver program was established as a voluntary, work-based savings initiative that allows workers to contribute to retirement savings while being assisted by employer and government contributions. Universal pension combined with voluntary savings: This package indicates both the role of the public and private sectors in securing retirement futures (Norianrini et al. 2021).

The case of China differs, with rapid urbanization and a shrinking workforce putting immense pressure on the existing pension system. The Chinese government has responded by increasing coverage under basic protection insurance and encouraging the development of private pensions. Financial literacy programs have also been initiated to educate the population regarding the need for and benefits of personal savings and investments for retirement. Therefore, this strategy is in tandem with the 2020 study by Niu, which stresses the critical role of financial literacy in securing retirement in the fast-changing economic landscape of China (Niu et al. 2020; Giles et al. 2012).

Like many other countries, Malaysia shares its ageing population and inadequate retirement savings challenges (Jaafar et al. 2019). While EPF is the primary retirement savings vehicle, recent data has shown that most Malaysians need more savings to see them through their retirement years. Rising living costs and the economic impact of COVID-19 further exacerbate the situation (Kaye, 2021). Others have replied by placing a greater call on financial literacy education and EPF system improvement to ensure that the population undertakes more active retirement planning.

In other words, retirement programs worldwide suggest that individuals should assume a far more active role in shaping their financial futures. A government pension scheme lays down a core. However, the kaleidoscopic nature of these global changes raises the demand for personal retirement strategies much more at the level of the individual. Financial literacy thus comes to the fore as a sine qua non for both contentment and security in



retirement, which could guarantee that old age will not have the capacity to hurt (Selvadurai et al. 2018). Faced with the upcoming challenge of an ageing population, some countries have used different retirement programs to help the ever-increasing financial needs of their aged citizens. Running from government pensions to mandatory savings schemes, these programs have shown various ways by which old-age finance can be secured (Harahap et al., 2022).

In essence, what retirement programs worldwide suggest is that individuals should take on a more active role in shaping their financial futures. While a government pension scheme provides a foundation, the dynamic nature of global changes underscores the need for personal retirement strategies at the individual level (Basiglio & Oggero, 2020). Financial literacy emerges as a crucial factor for both satisfaction and security in retirement, empowering individuals to take control of their financial future and ensuring that old age does not bring financial hardship (Lusardi et al. 2019).

### **The EPF Ensemble**

The Employee Provident Fund (EPF) is a cornerstone of Malaysia's financial environment, notably for private sector employees (Kuhlmann & Nullmeier, 2022). The research findings emphasize the necessity for solid financial planning abilities early on and the importance of receiving competent financial guidance to augment EPF savings for a safe retirement. Despite being the primary provider of post-retirement money, the EPF confronts issues assuring retirees' long-term financial well-being (Shaira et al., 2023).

The most recent data on retirement savings in Malaysia reveals a concerning trend. As of 2023, about 84% of active Employees Provident Fund (EPF) members have less than RM 100,000 in their accounts by the time they retire, which is insufficient to cover expenses for an estimated 20 years after retirement (The Star. 2023). To address this, the EPF increased the minimum savings threshold to RM 240,000 by age 55, recognizing the need for more substantial retirement savings (Ja'afar & Daly, 2016). Despite this adjustment, many Malaysians still need help with inadequate savings, mainly due to rising living costs and the economic impact of the COVID-19 pandemic (Xun et al., 2022).

Furthermore, the situation is particularly alarming for those in the 40 to 54 age group. In 2022, 4.81 million members in this category were reported, but a significant number of them had insufficient savings to ensure financial security during retirement. This issue underscores the urgent need for improved financial literacy and better financial planning among Malaysians to ensure a comfortable retirement (New Straits Times, 2022). This change is designed to address the shortfall in retirement wealth, particularly for Malaysia's ageing population. The introduction of a minimum pension consumption model, involving regulated periodic withdrawals from the EPF, with a projected minimum pension rate of RM950 per month, has been well-received by the public, advocating for a shift from lump-sum retirement benefit payments (Kumaraguru et al. 2022; Foziah et al., 2019).

However, challenges persist, with the EPF and Malaysia's retirement system deemed inadequate compared to international standards (Jaafar et al., 2019). Suggestions for system change include transforming the EPF into a comprehensive pension fund, integrating minimum annuity options, and transitioning to a non-defined contribution scheme. Despite these proposed reforms, researchers stress the importance of Malaysians diversifying their

post-retirement financial resources. This is a crucial solution to the risks of relying solely on EPF savings, given factors such as inflation and the escalation of goods prices and services, which erode the purchasing power of the elderly population (Haron et al., 2019).

### **Predictable Intuition**

Subjective norms, as articulated by Ajzen in 1985, offer valuable insights into how individuals perceive the expectations of significant others regarding specific behaviors (Ajzen, 1985). This concept plays a crucial role in financial decision-making, as demonstrated by Rahman et al. (2021), empirical study, which highlights the intergenerational transmission of financial knowledge within families. Families with a history of investing and sound financial practices tend to pass these attributes on to the next generation, thereby fostering financial proficiency, particularly in complex areas such as investment decisions. These findings underscore the dynamic influence of subjective norms, which serve as reference points in an individual's decision-making journey (Hastings et al. 2013; Rahman et al., 2021).

The influence of subjective norms is not limited to family; it extends to other social circles, such as colleagues, friends, and financial experts. Alqasa et al. (2014) found a significant relationship between individuals' intentions to use financial services and the subjective norms and attitudes prevalent in their social environment. Similarly, Shah & Asghar (2023) demonstrated how social group preferences, including those of peers, family, and relatives, strongly predict investment intentions. This highlights the pervasive impact of subjective norms in the financial realm, illustrating that individuals are not isolated decision-makers but are intricately connected to a network of influences that shape their financial behaviors and attitudes.

For example, consider a young professional who observes that most of their peers are spending their disposable income on experiences, travel, or consumer goods rather than saving for retirement. The social pressure to conform can lead to the perception that saving for retirement is not a priority or is even socially undesirable. As a result, the individual may delay starting a retirement savings plan or contribute insufficient amounts. In some cultures, there is also a strong norm of relying on children for financial support in old age, which can further discourage personal retirement savings (She et al. 2021; Xie et al., 2023).

To address these challenges, it is essential to promote financial education and awareness, highlighting the long-term benefits of retirement planning (Selvadurai et al. 2018). Encouraging open conversations about financial goals and retirement savings can help individuals critically assess and challenge prevailing subjective norms, ultimately leading to more informed and future-oriented financial decisions. Understanding the interplay between subjective norms and financial behaviors, individuals can better navigate the pressures that influence their retirement planning strategies, leading to more secure financial futures (Fraczek & Matula, 2019; Yeo et al. 2023).

### **Futuristic Elegance**

Subjective norms, which represent the perceived social pressures individuals feel to conform to the expectations of others, are intricately connected to future orientation—a critical element of effective retirement planning (Mehraboun, 2024). Future orientation refers to an individual's ability to focus on future goals, make plans to achieve those goals, and delay

immediate gratification in favor of long-term benefits. The relationship between these two concepts plays a significant role in shaping how people approach their retirement planning strategies (Ghadwan et al., 2023).

Research has shown that individuals with a strong future orientation are generally more inclined to engage in retirement savings and long-term financial planning (Ghadwan et al. 2023). However, subjective norms can either reinforce or undermine this future-oriented behavior (Xu et al. 2022). For example, if the prevailing social norms within an individual's social circle or community emphasize the importance of saving for the future, the individual is more likely to adopt and maintain these behaviors. Conversely, if the social norm prioritizes immediate consumption and spending, it may weaken the individual's inclination to save, even if they are naturally future-oriented (Shah et al. 2023).

A key aspect of retirement planning involves the ability to delay gratification—sacrificing short-term pleasures for the security and benefits that come with long-term financial stability (Topa et al., 2017). Subjective norms heavily influence this ability. In societies or communities where saving and prudent financial behavior are valued and reinforced, individuals are more likely to develop the discipline needed to delay gratification (Hoeger et al. 2011). On the other hand, when social norms encourage spending and living for the moment, individuals may struggle to prioritize long-term savings, negatively impacting their retirement planning (Samuel et al. 2023).

Moreover, social comparison plays a significant role in how subjective norms affect retirement planning. Individuals often compare their financial situations with those of their peers, which can lead to pressure to conform to certain spending habits (Ugwu et al. 2023). If the norm within a peer group is to spend rather than save, individuals may feel compelled to follow suit, even at the expense of their future financial security (Yean et al. 2015; Ugwu et al. 2023). This social pressure can create a significant barrier to effective retirement planning, as it can lead individuals to prioritize short-term social conformity over long-term financial well-being. Understanding this dynamic allows financial planners and policymakers to design strategies that promote a culture of future-oriented thinking, thereby encouraging more effective retirement savings and planning. (Topa et al. 2017; Harahap et al. 2022)

## **Conclusion**

Options available in Malaysia for retirement planning include Amanah Saham Berhad, pension schemes, Unit Trust investments, and the very popular Employee Provident Fund. However, the effectiveness of such options is only partially dependent on availability; several sociocultural factors, including future-oriented mindsets, social norms prevalent at that time, and the level of financial literacy in the population, somewhat influence it.

The critical issue facing Malaysia is that despite all of these diversified tools for retirement planning, most people still need to prepare for retirement. This lack of preparedness is often due to too little financial education and future-oriented financial planning, which is influenced by short-term financial behaviour. For example, the majority of EPF members have far below the recommended threshold of savings, which draws attention to what is likely to be widespread ignorance and lack of concern for long-term financial planning.



One of the key challenges is to instill a culture of financial literacy that encourages responsible savings and investment behaviors from an early age. Overcoming sociocultural factors that promote immediate consumption over long-term savings is crucial. This is particularly significant in Malaysia, with its ageing population, where inadequate retirement savings could lead to increased financial dependency later in life. However, fostering financial literacy could lead to a more financially secure future for all.

From this paper, awareness of retirement options needs to be improved; instead, there is a distinct impetus in educational efforts to improve financial literacy at every level. This is with initiatives focusing on teaching a changed mindset from short-term gains of an economic nature to long-term financial security, hence ensuring better decisions that will secure the future. The imminent challenge for Malaysia is bridging the gap between the availability of retirement planning tools and their effective use. By addressing the issue of financial education and implementing policy reforms and societal changes, Malaysia can pave the way for a future where more people can retire comfortably and self-sufficiently. The focus should not just be on providing choices, but on ensuring that all Malaysians understand and effectively use these choices.

### Acknowledgments

This research was funded by Grant Putra Inisiatif Siswazah (GP-IPS), University Putra Malaysia. Grant number GS-IPS/2022/9728100.

### References

- Abdul Jakit, F. H., Abd. Ghani, J., Hamid, T. A., & Mazlan, N. S. (2023). An Analysis of Socio-Economic Determinants Affecting Retirement Adjustment and Life Satisfaction Among Public Retirees in The Klang Valley. *International Journal of Economics and Management*, 17(2), 177-195. <https://doi.org/10.4786/ijeam.17.2.03>
- Adiandari, A. M., & Fitriandari, M. (2023). Comparison of Financial Literacy in Different Countries. *International Journal of Scientific Research in Science and Technology*. <https://doi.org/10.32628/IJSRST229687>
- Ajzen, I. (1985). From Intentions to Actions: A Theory of Planned Behavior. SpringerLink Series in Social Psychology. [https://doi.org/10.1007/978-3-642-69746-3\\_2](https://doi.org/10.1007/978-3-642-69746-3_2).
- Alqasa, K. M., Mohd Isa F., Othman, S. N., & Saleh Zolait, A. H. (2014). The Impact os students' attitude and subjective norm on the behavioural intention to use services of banking system. *International Journal of Business Information Systems*, 15(1), 105-122.
- Alshebami, A. S., & Aldhyani, T. H. H. (2022). The interplay of social influence, financial literacy, and saving behaviour among saudi youth and the moderating effect of self control. *Journal of Sustainability*, 14(14), 8780. <https://doi.org/10.3390/su14148780>.
- Bai, R. (2023). Impact of financial literacy, mental bugeting and self control on financial wellbeing: Mediating impact of investment decision making. *Plos ONE*, 18(11), e0294466. <https://doi.org/10.1371/journal.pone.0294466>.
- Basiglio, S., & Oggero, N. (2020). The effects of Pension information on individuals' economic outcomes: A survery. *Journal Economies*, 8(3), 67. <https://doi.org/10.3390/economies8030067>
- Bloom, D. E. (2010). Implications of Population Ageing for Economic Growth on JSTOR. *Oxford Review of Economic Policy*. <https://doi.org/43664646>.

- Chen, M., Zhang, H., Liu, W., & Zhang, W. (2014). The Global Pattern of Urbanization and Economic Growth: Evidence from the Last Three Decades. *PLOS ONE*, 9(8). <https://doi.org/10.1371/journal.pone.0103799>.
- Cristea, M., Noja, G. G., Stefea, P., & Sala A. L. (2020) The Impact of Population Aging and Public Health Support on EU Labor Markets. *International Journal of Environmental Research and Public Health*, 17(4). <https://doi.org/10.3390/ijerph17041439>. EPF: 6.3 million members under 55 have less than RM 10,000 savings (2023). The Star
- Fiergbor, D. D. (2020). The Habit of Savings among College Students. Universal Wiser Publisher. <https://doi.org/10.37256/ges.11202069.38-43>.
- Fong, J. H., Koh, B. S. K., Mitchell, O. S., & Rohwedder, S. (2021). Financial literacy and financial decision-making at older ages. *Pacific-Basin Financial Journal*, 65, 101481. <https://doi.org/10.1016/j.pacfin.2020.101481>.
- Foziah, H., Afthanorhan, A., Ghazali, P. L., Wan Daud, W. M. N., Mahmud, M. S., & Omar, L. (2019). An Assessment of the Basic Savings of Retirees Conducted through a Mathematical Approach. *International Journal of Innovation, Creativity and Change*, 7(10). 140-150.
- Fraczek, B., & Matula, A. G. (2019). Financial education and financial knowledge and its usage among Asperger syndrome people. *Cypriot Journal of Education Sciences*, 14(4), 742-749.
- Giles, J., Wang, D., & Cai, W. (2012). Aging in Asia: Findings from new and emerging data initiatives. The National Academies.
- Harahap, S., Thoyib, A., Sumiati, S., & Djazuli, A. (2022). The impact of financial literacy on retirement planning with seral mediation of financial risk tolerance and saving behavior: Evidence of medium entrepreneurs in Indonesia. *Journals IJFS*, 10(3), 66. <https://doi.org/10.3390/ijfs10030066>.
- Haron, H., Mat Razali, N. N. S., & Mohamad, F. (2019). Factors influencing financial planning retirement amongst employees in The Private Sector in Est Coast Malaysia: Literature Review and Research Agenda. FGIC 2nd Conference on Govemance and Integrity, 1115-1129. <https://doi.org/18502/kss.v3i22.5115>.
- Hastings, J. S., Brigitte, C. M., & Skimmyhorn, W. L. (2013). Financial literacy, financial education and economic outcomes. *Annu Rev Econom*, 5, 347-373. <https://doi.org/10.1146/annurev-economics-082312-125807>.
- Hoerger, M., Quirk, S. W., & Weed, N. C. (201). Development and validation of the delaying gratification inventory. *Psychol Assess*, 23(3), 725-738. <https://doi.org/10.1037/a0023286>.
- Igarashi, M., Ohta, R., Kurita, Y., Nakata, A., Yamazaki, T., & Gomi, H. (2021). Exploring the competencies of Japanese Expert Nurse Practitioners: A Thematic Analysis. *Healthcare (Basel)*, 9(12), 1674. <https://doi.org/10.3390/healthcare9121674>
- Ja'afar, R., & Daly, K. J. (2016). Reviewing the financial soundness of the Malaysia's employees provident fund. *International Journal of Humanities and Management Science*, 4(1), 14-18.
- Jaafar, R., Daly, K. J., & Mishra, A. V. (2019). Challenges facing Malaysia pension scheme in an era of ageing population. *Finance Research Letters*, 30, 334-340. <https://doi.org/10.1016/j.fri.2018.10.017>.
- Karakurum-Ozdemir, K., Kokkizil, M., & Uysal, G. (2019). Financial Literacy in Developing Countries, *Social Indicators Research: An International and Interdisciplinary*.

- Journal for Quality-of-Life Measurement*. Springer, 143(1), 325-353.  
<https://doi.org/10.1007/s11205-018-1952-x>.
- Kaye, A. D., Okeagu, C. N., Pham, A. D., Silva, R. A., Hurley, J. J., Arron, B. I., Sarfraz, N., Ghali, G. E., Gamble, J. W., Urman, R. D., Liu, H., & Cornett, E. M. (2021). Economic impact of COVID-19 pandemic on healthcare facilities and systems: International perspectives. *Best Pract Res Clin Anaesthesiol*, 35(3), 293-306.  
<https://doi.org/10.1016/j.bpa.2020.11.009>
- Kenzia, M. J., & Borrero, Y. S. (2022). Financial Literacy among the Youth in Switzerland. *Journal of Financial Management*, 11, 323-341.  
<https://doi.org/10.4236/jfrm.2022.112017>.
- Kuhlmann, J., & Nullmeier, F. (2022). The formation of National Capital Stock and the Pension System in South Korea and Malaysia. *International Impacts on Social Policy*, 371-383.
- Kumaraguru, L., Geetha, C., & Mohidin, R. (2022). The Factors Influence Retirement Preparation Among Gen Y in Malaysia. *Advance international Journal of Banking, Accounting and Finance*, 4(10), 01-12. <https://doi.org/10.35631/AIJBAF.410001>.
- Lone, U. M., & Bhat, S. A. (2022). Impact of financial literacy on financial well-being: a mediational role of financial self-efficacy. *J Financ Serv Mark*, 1-16.  
<https://doi.org/10.1057/s41264-022-00183-8>.
- Lu, Z., Li, H., & Wu, J. (2024). Exploring the impact of financial literacy on predicting credit default among farmers: An analysis using a hybrid machine learning model. *Borsa Istanbul Review*, 24(2). <https://doi.org/10.1016/j.bir.2024.01.006>.
- Lusardo, A. (2019). Financial Literacy and the Need for Financial Education: Evidence and Implication. *Swiss Journal of Economics and Statistics*, 155(1), 1-8.  
<https://doi.org/10.1186/s41937-019-0027-5>.
- Massol, Y., & Molines, A. (2015). Determinants of risk tolerance and investment behaviour: A study of French and Swedish Business School student. *Umea School of Business and Economics*.
- Nor, N. N. F. & Ghazali, S. (2021). Malaysia towards an ageing country. *Malaysian Journal of Society and Space*, 17(3), 234-245.  
<https://doi.org/10.17576/geo-2021-170317>.
- Mehraboun, M. (2024). A multi-theoretical view on social media continuance intention: Combining theory of Planned behaviour, expectation confirmation model and consumption value. *Digital Business*, 4(1), 100070.  
<https://doi.org/10.1016/j.digbus.2023.100070>.
- Mohd Siti, N., Ishak, A. A., & Selvaratnam, D. P. (2019). Ageing Population's Impact on Economic Growth in Malaysia From 1981 to 2019: Evidence From an Autoregressive Distributed Lag Approach. *Frontiers in Public Health*.  
<https://doi.org/10.3389/fpubh.2021.731554>.
- Mondejar, M. E. (2021). Digitalization to Achieve Sustainable Development Goals: Steps towards a Smart Green Planet, *Science of the Total Environment*, 794.  
<https://doi.org/10.3389/fpsyg.2017.02338>
- Munisamy, A., Sahid, S., & Hussin, M. (2022). A Financial Literacy Model of Malaysian B40 Households: The Case of Financial Well-Being, Education Level and Socioeconomic Status. *MDPI Proceedings*, 82(1), 64.  
<https://doi.org/10.3390/proceedings2022082064>.

- Nagarajan, N. R., & Andrew S. (2023). Policy Initiatives to Address the Challenges of an Older Population in the Workforce. *Ageing International*, 48(1), 41-77, <https://doi.org/10.1007/s12126-021-09442-w>.
- Nguyen, T. A., & Rozsa, Z. (2019). Financial literacy and financial advice seeking for retirement investment choice. *Journal of Competitiveness*, 11(1), 70-83. <https://doi.org/10.7441/joc.2019.01.05>.
- Nguyen, T. A., Rozsa, Z., Belas, J., & Belasova, L. (2017). The effects of perceived and actual financial knowledge on regular personal savings: Case of Vietnam. *Journal of international studies*, 10(2), 278-291. <https://doi.org/10.14254/2071-8330.2017/10>.
- Niu, G., Zhou, Y., & Gan, H. (2020). Financial literacy and retirement preparation in China. *Pacific-Basin Finance Journal*, 59, 101262. <https://doi.org/10.1016/j.pacfin.2020.101262>.
- Noland, M. (2000). Japan and the International economic institutions. Peterson Institute for International Economics.
- Noviarini, J., Coleman, A., Roberts, H., & Whiting, R. H. (2021). Financial literacy, debt, risk tolerance and retirement preparedness: Evidence from New Zealand. *Pacific-Basin Finance Journal*, 68, 101598. <https://doi.org/10.1016/j.pacfin.2021.101598>.
- Peng, T. N., Cheok, C. K., & Rasiah, R. (2015). Revisiting Malaysia's Population-Development Nexus. Faculty of Economics and Administration, UKM.
- Rahman, M., Isa, C. R., Masud, M. M. (2021). The role of financial behaviour, financial literacy, and financial stress in explaining the financial well-being of B40 group in Malaysia. *Futur Bus J*, 7(52), <https://doi.org/10.1186/s43093-021-00099-0>.
- Samuel, L. J., Wright, R., Taylor, J., Lavigne, L. C. R., & Szanton, S. L. (2023). Social norms about handling financial challenges in relation to health-protective capacity among low-income older adults. *Oxford journals the gerontologist*, 63(4), 783-794. <https://doi.org/10.1093/geront/gnac061>.
- Selvadurai, V., Kenayathulla, H. B., & Siraj, S. (2018). Financial Literacy Education and Retirement Planning in Malaysia. *Malaysian Online Journal of Education Management*, 6(2), 41-66. <https://doi.org/10.22452/mojem.vol6no2.3>
- Shah, S. S., & Asghar, Z. (2023). Dynamics of social influence on consumption choice: A social network representation. *Heliyon*, 9(6), e17146. <https://doi.org/10.1016/j.heliyon.2023.e17146>.
- Shaira Ramil, N. I., & Mohamad Shariff, N. S. (2023). A Study on Retirement Preparedness and Confidence among Private Sector Employees in Malaysia. *Malaysian Journal of Science, Health & Technology*, 9(2). <https://doi.org/10.33102/mjosht.v9i2.328>.
- She, L., Ma, L., & Fomani, F. K. (2021). The consideration of future consequences scale among Malaysian young adults: A Psychometric Evaluation. *Front Psychol*, 12, 770609. <https://doi.org/10.3389/fpsyg.2021.770609>.
- Tao, H., Sun, X., Liu, X., Tian, J., & Zhang, D. (2022). The Impact of Consumer Purchase Behavior Changes on the Business Model Design of Consumer Services Companies Over the Course of COVID-19. *Frontiers in Psychology*, 13, 818845, <https://doi.org/10.3389/fpsyg.2022.818845>.
- Topa, G., Lunceford, G., & Boyatzis, R. E. (2017). Financial Planning for Retirement: A Psychosocial Perspective. *Frontiers in Psychology*, 8. <https://doi.org/10.3389/fpsyg.2017.02338>

- Wan-Fei, K., Chan, Y. M., Nasaruddin, N. H., Alias, S., Tan, L., & Ganapathy, S. S. (2023). Malaysian burden of disease: years of life lost due to premature deaths. *BMC Public Health*, 13(1383). <https://doi.org/10.1186/s12889-023-16309-z>
- Xie, X., Osinska, M., & Szczepaniak, M. (2023). Do Young generations save for retirement? Ensuring financial security of Gen Z and Gen Y. *Journal of Policy Modeling*, 45(3), 644-668. <https://doi.org/10.1016/j.polmod.2023.05.003>.
- Xu, Y., Du, J., Shafique Khan, M. A., Jin, S., Altaf, M., Anwar, F., & Sharif, I. (2022). Effects of Subjective Norms and environmental mechanism of green purchase behaviour: An extended model of theory of Planned Behavior. *Front. Environ. Sci*, 10. <https://doi.org/10.3389/fenvs.2022.779629>.
- Xun, N. Y., Xiang, P. Y., & Zher, S. M. (2022). The financial satisfaction of personal retirement planning among Malaysian youth EPF contributors during COVID-19 Pandemic. Universiti Tunku Abdul Rahman.
- Yean, T. F., Johari, J., & Mohd Sukery, A. F. (2015). The Influence of Attitude, Subjective Norms, and Perceived Behavioural Control on Intention to Return to Work: A Case of Socso's Insured Employees. *Kajian Malaysian*, 33(1), 141-154.
- Yeo, K. H. K., Lim, W. M., & Yii, K. J. (2023). Financial planning behaviour: a systematic literature review and new theory development. *Journal of Financial Services Marketing*, 1-23
- Zhou, J., Z., & Ye, X.(2023). Aging Population and Digital Inclusive Finance, a Natural Experiment from China. *PLOS ONE*, 18(11). <https://doi.org/10.1371/journal.pone.0287292>.