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# Examining the link between financial literacy and retirement planning: Assessing the Role of Financial Knowledge in Secure Retirement

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**Abstract**

Retirement planning, especially financial planning, is an important personal financial behaviour. Individuals are required to focus on and make many independent decisions regarding retirement savings plans, pension systems, investment products, digital financial services and future income security. We examine the relationship between financial literacy and retirement planning and the mediation effect of financial literacy on secure retirement behaviour. Based on past research on financial literacy and financial awareness, saving behaviour, financial attitude, digital financial literacy and retirement preparedness, the paper develops and tests three hypotheses. The paper uses a quantitative research method and a structured questionnaire. The synthetic sample consisted of 300 working adults. A 5-point Likert-type scale was used to measure financial literacy, digital financial literacy, financial attitude, and retirement planning behaviour (1 = strongly disagree, 5 = strongly agree). Descriptive statistics, frequency distributions, correlation analysis, and simple regression-based decision tables were used to analyse the data. Results showed a positive statistically important relationship between financial literacy and retirement plan, and digital literacy and financial attitude were positive predictors of retirement planning behaviour. High digital financial literacy was associated with more regular retirement saving, understanding of pension products, assessment of financial risks, use of digital financial tools, seeking financial advice, and taking action to plan how to prepare for their future retirement. The study concluded that financial literacy was a major factor influencing retirement plan acceptance; it recommended that employers, public policy, financial institutions, and education providers promote financial literacy for employees.

**Keywords**: financial literacy, financial knowledge, retirement planning, digital financial literacy, retirement preparedness, financial attitude, financial well-being, secure retirement.

## 1. Introduction

Retirement planning is a major problem of modern societies, due to the trend toward individuals' assuming personal responsibility for their own financial well-being in old age. In many countries, retirement protection systems have been affected by demographic ageing, increasing life expectancy with uncertain conditions on the labour market, inflation, pension policy adjustments, and the development of individual retirement saving and investment products. This means that in addition to knowing one's pension rights, retirement planning involves being financially literate and being disciplined in savings, risk-aware, having a knowledge of investment products to a certain degree, and being able to think and plan for future financial circumstances. Financial literacy is essential if people are to be secure in their retirement.

Financial literacy is the ability to understand and use personal finance skills, including budgeting, saving, interest rates, inflation, pensions, insurance, investing, and risk diversification. In retirement planning, financial literacy can help an individual estimate future income needs, make informed decisions about pension options, compare financial products, and avoid the pitfalls of poor financial choices. In this regard, research has shown that individuals with higher financial literacy levels are more likely to plan and save for retirement than those with lower levels of financial literacy (Niu et al., 2020; Safari, 2021; Sarpong-Kumankoma, 2023; Tan & Singaravelloo, 2020) since retirement planning is complex, long-term, and uncertain.

In other research, financial literacy has also included financial confidence, digital financial literacy, financial attitude, financial advice, lifestyle, occupation, and social interaction. A meta-analysis by Chen and Chen (2023) found that financial literacy confidence (distinct from financial knowledge) is also associated with retirement planning. However, financial literacy is not the only determinant of retirement planning. According to Mustafa et al. (2023), financial attitudes, financial literacy and health literacy affect sustainable retirement planning. Similarly, Fang (2022) found that financial advice and social interaction matter as well. This indicates that retirement planning is affected by financial knowledge, financial attitudes, financial behaviour and access to information and support.

The emergence of a variety of financial digital products in recent decades (e.g. digital banks, mobile investment apps, online pension schemes and financial calculators) can also change the pathway of saving for retirement with potentially greater access to information but also a need for digital financial literacy. Digital financial literacy has also been associated with retirement planning, as digitally literate consumers are better able to compare financial products and track their savings and investments (Khurana, 2026; Mittal, 2025; Yadav et al., 2025). Tang (2026) states that individuals need not only financial literacy but also financial awareness when saving for retirement, which stresses the role of financial awareness in retirement savings (financial planning) decisions.

This study used a simple analytic approach to determine the relationship between financial literacy and retirement planning. The study uses a combination of 300 respondents as a sample to discuss and analyse financial literacy, digital financial literacy and financial attitude in preparing for retirement. The study was written as a student paper, and makes use of descriptive and inferential statistics, as well as tables. This is not intended to describe the population from which the synthetic data were sampled, but only to illustrate how a study of this kind could be written and interpreted.

The research problem is that many people do not realise early saving is necessary, do not understand how savings compound, do not know how to contribute to pensions, overlook inflation and investment risk, and do not consider how their decisions impact the long-term future. These shortcomings can leave individuals under-prepared for retirement, such as having to rely on family or experiencing financial strain. International studies also found income, education, sector of employment, occupation, gender, attitudes towards money, access to financial advice, and financial literacy to influence retirement preparedness (Adee, 2024; Naruetharadhol, 2021; Vieira, 2024; Wewala & Ediriweera, 2021; Zainal Abidin et al., 2023). Thus, financial literacy and retirement planning is important for individuals and policymakers to consider.

The objectives of this study are: to examine the level of financial literacy among the respondents, to examine the relationship between financial literacy and retirement planning, to examine the relationship between digital financial literacy and retirement planning behaviour and to examine whether financial attitude can contribute to retirement preparedness. On the basis of these objectives, this study develops three hypotheses. The first hypothesis is that financial literacy has a meaningful positive impact on retirement planning. The second hypothesis is that digital financial literacy has an important impact on retirement planning behaviour of individuals. The third hypothesis is that financial attitude has a meaningful impact.

The introduction chapter covers the research background, research problem, research aim and objectives, and research hypotheses. The literature review chapter covers the existing literature on financial literacy, retirement readiness, digital financial literacy, financial attitude, and retirement preparedness. The methodology chapter outlines the study design, sample size, instrument, Likert scale, data analysis, and ethical considerations. The analysis and results chapter contains demographic statistics, descriptive statistics, hypothesis testing tables, and a decision table. The discussion interprets the results in light of previous research, and the conclusion summarises the results, implications, limitations, and recommendations.

## 2. Literature Review

Financial literacy has been examined as an important predictor of financial behaviour. It is particularly relevant to retirement planning as it involves complex computations of future savings, pensions, inflation, investment returns, tax rates, investment risks and future consumption requirements. People low in financial literacy may not understand the value of early savings and the amounts needed to retire, while people high in financial literacy have better planning skills, are more disciplined savers, better risk assessors, better budgeters, have higher credit knowledge and make better financial product decisions.

Niu et al. (2020) found a positive relationship between financial literacy and retirement preparation among individuals in China, implying that financial literacy increases an individual's retirement preparation capabilities. Tan and Singaravelloo (2020) found financial literacy to be the most important factor influencing the retirement planning of government officers in Malaysia. Safari (2021) found that financial literacy is important for individual retirement planning. Thus, a number of studies conclude that financial literacy is relevant in a number of national and occupational contexts.

Sarpong-Kumankoma (2023) studied financial literacy and retirement planning in Ghana, and found financial literacy to have a positive effect on retirement planning in Ghana, stressing the importance of financial literacy to retirement planning beyond high-income countries. Wewala and Ediriweera (2021) undertook a study comparing the financial literacy of Sri Lankan public and private sector employees in making retirement planning decisions. The authors concluded that financial literacy plays an important role in both sectors, but the retirement planning behaviour of employee varies based on their working sector.

Likewise, financial literacy influences retirement preparedness through confidence and awareness. Chen and Chen (2023) discussed the importance of financial literacy confidence, as people who are confident in their financial knowledge may be more willing to engage in retirement planning. Confidence must be substantive, as an overly confident person may take risks that have adverse financial effects. Tang's study in 2026 on financial awareness and retirement savings found that knowledge of financial issues may affect saving behaviour. These studies underscore the importance of knowledge and awareness in retirement planning.

The role of financial education has also been studied: Ghafoori et al. (2021) investigate the impact of a large-scale financial education intervention on retirement saving behaviour and portfolio allocation. Their work demonstrated the impact of financial education on retirement choices, and OECD (2022) highlighted financial education in old age in the broader context of economic and social change. They further suggest that retirement plans can be improved through education programs, in-house training, and public financial literacy campaigns.

Financial attitude, defined as one's attitudes, beliefs and feelings towards managing money, saving, spending, debt and future planning, was associated with sustainable financial retirement planning alongside financial literacy and health literacy, according to Mustafa et al. (2023). Low future saving or high consumption preference today could also indicate lack of interest in effective financial retirement planning even with financial literacy. Following Adee (2024), mediators of retirement saving and well-being also showed that retirement outcomes are determined by more than just knowledge.

Various factors can influence retirement readiness and accumulation, including pwsg factors such as lifestyle and consumption behaviour. Martini et al. (2024) studied the impact of financial literacy and lifestyle. This research is important because lifestyles affect savings ability, with those prone to excessive consumption unable to save income for a long-term goal, retirement, even when they understand the importance of saving for retirement. Building on Mittal (2025), financial literacy plays a meaningful role in retirement planning; contemporary retirement planning is particularly eased through changing consumption patterns, increased access to digital devices, and the socio-economic changes within social dynamics driven by global economic uncertainty.

Because financial services are mainly delivered digitally, digital financial literacy is important. Khurana (2026) examines the associations between digital financial literacy and retirement planning behaviour among millennials in India. Younger generations are increasingly using mobile banking, investment apps, online retirement accounts, and mobile financial calculators. Yadav et al. (2025) also studied the relationship between digital financial literacy and retirement planning, considering saving behaviour as a mediating factor. These studies suggest that digital financial literacy can improve retirement planning by accelerating savings behaviour, directly or indirectly.

Financial advice and social interaction also contribute to financial decision making. According to Fang (2022), financial decisions can be based on advice given by professionals or social interactions that are integrated into the process. Financial advice can help in retirement planning by helping individuals understand financial products related to pensions and investments. Effectiveness may depend on the financial literacy of those seeking advice. Mustafa et al. (2023) studied the role of financial advisors in retirement planning, finding that financial advice moderates the relationship between financial literacy and attitude.

The effect of occupation/employment on retirement may be related to income, pensions, job security, and other characteristics. A study on self-employment, financial literacy and retirement planning by Rostamkalaei (2022) found self-employment made retirement planning more difficult because self-employed workers had less structured pension participation than those working for a regular organization. Vieira (2024) said that occupational characteristics and financial preparedness for retirement may impact retirement behaviour. Naruetharadhol (2021) considered career status, retirement readiness, and the age of workers, finding that retirement readiness may vary by career stage and by the age of the worker.

Ageing, gender and household characteristics may also affect retirement planning. For instance, Zainal Abidin et al. (2023) studied financial literacy and retirement planning behaviour of working single women in the private sector. They suggest that retirement planning research pay special attention to gender, employment, and family structure because women are particularly vulnerable to retirement challenges due to interruptions in their careers, lower wages, caregiving responsibilities, and their longer lifespans. Financial literacy matters especially for those who are more likely to face retirement challenges.

Internationally, financial literacy and retirement planning behaviour also vary.

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Shimizutani and Yamada (2020) used a comparison of the financial literacy of the middle aged and elderly in Japan and in the United States. These findings support the notion that financial literacy may depend on the context of a country such as its education system, its pension system, and certain characteristics of its financial market. Mancebón and Ximénez-de-Embún (2026) present similar results on financial literacy and retirement planning based on Spanish data, supporting the country-based focus. Evidence of retirement preparedness in Brunei Darussalam was found in a 2025 study by Md Hasnol Alwee Pg Hj Md Salleh and Baha.

More recent studies have studied specific sample populations; for example, Ajok (2025) studied public university employees in Uganda, their financial literacy and retirement preparedness as affected by their attitude towards retirement. Voleti (2024) studied the perceived financial readiness to retire among technical education teachers. Similar studies identify retirement planning increasingly approaching occupational and institutional groups, as different workers have different situations, risks, and expectations for retirement.

According to a broad bibliometric analysis of retirement planning and financial literacy research by Gallego-Losada et al. (2022), retirement planning research has become an academic pursuit across finance, economics, behavioural science, public policy and social development in recent years. This is important, because at the same time retirement saving is very personal, it is embedded in financial systems, welfare policy, labour markets and demographics.

The aforementioned literature suggests that financial literacy affects retirement planning; likewise, some other factors exist such as digital financial literacy, financial confidence, financial attitude, saving behaviour in planning for retirement, occupation, age, gender, lifestyle, social interaction, financial advice, national pension system, etc. Hence, this research hypothesises financial literacy, digital financial literacy and financial attitude are positively correlated with retirement planning of working adults.

## 3. Methodology

The research design adopted for this study is an analytical quantitative research design because the purpose of this study is to measure the relationship between financial literacy and retirement planning. An analytical quantitative research design enables the researcher to compute other descriptive statistics like frequencies, means, percentages; correlation and regression analysis can be used to test research hypotheses. Following the methodology adopted in many preceding financial literacy and retirement planning studies (e.g., Chen & Chen, 2023; Mustafa et al., 2023; Niu et al., 2020; Sarpong-Kumankoma, 2023) a questionnaire was designed by the researchers and administered to participants. The data were used to assess financial literacy, attitudes, behaviours, and retirement outcomes.

The study's population was working adults expected to make financial decisions about their retirement. Three hundred randomly selected respondents from the population were analysed in the present paper to represent the population. For basic descriptive and inferential statistics, a sample size of 300 is adequate, because it allows the researcher to perform categorical analyses of respondents based on demographics, as well as cross-tabulation between the variables for the entire sample and the sub-groups of respondents (gender, age, level of education and sector of employment). Outlined findings are synthetic and should not be interpreted as actual results from a field survey.

The main data collection instrument was a self-administered structured questionnaire, which was composed of five sections on sociodemographic variables, including gender, age, level of education and working sector. Financial literacy was assessed in part two, including savings, investment, interest rate, inflation, pension, and financial risks. Digital financial literacy was assessed in part three. This included the ability to use digital banking services, to find and use financial information, to use mobile investment apps, and to use pension calculators. The fourth section included questions about saving, foresight and a positive attitude towards budgeting and saving. The fifth section was on retirement planning behaviour including regular saving, pension contribution, pre-retirement investing behaviour, retirement goal setting and seeking financial advice.

The answers to the questionnaire were given a five-point Likert scale of: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree. A five-point Likert scale is used as it gives a good range of levels of agreement and disagreement, the mean of responses can be calculated, and it is easy to assign the level of response to low, moderate or high scores by the researcher. Low levels of perception were indicated by scores of between 1.00 and 2.33, moderate levels by scores of between 2.34 and 3.66, and high levels by scores of between 3.67 and 5.00.

The study measured four variables. The first hypothesis posited financial literacy as the independent variable. Retirement planning was the dependent variable in the first hypothesis and digital financial literacy was the independent variable in the second hypothesis between digital financial literacy and retirement planning behaviour. The independent variable for the third hypothesis was financial attitude and the dependent variable was retirement preparedness. Retirement preparedness was measured through statements about retirement readiness, adequacy of retirement saving, confidence regarding retirement income, and ability to meet future financial obligations.

The study proposed three hypotheses.

H1: Financial literacy is positively correlated with retirement planning.

H2: Digital financial literacy is positively related to retirement planning attitude.

H3: Financial attitude strongly affects preparedness for retirement.

Data were analysed in four stages, starting with the analysis of demographic data of the respondents. Second, frequency, percentage, mean, and standard deviation were used to analyse the Likert scale responses. Third, a correlation analysis was conducted to determine the relationship between the variables. Fourth, regression-style decision tables were used to accept or reject the hypotheses, with the importance level set at $p < 0.05$.

The study was conducted under basic ethical principles. No personally identifiable information was collected as the data is synthetically generated. Thus, should this study be conducted, ethical approval, informed consent, confidentiality, voluntary participation, and safe storage of all data would be required. Respondents would also have to be informed that participation is voluntary and that their response to the questionnaire would be solely for academic use.

## 4. Analysis and Results

This section presents the results of the synthetic survey data. The analysis includes demographic information, Likert-scale results, descriptive statistics, hypothesis testing, and decision tables. The total sample size is 300 respondents.

**Table 1**

**Demographic Profile of Respondents, n = 300**

| **Variable** | **Category** | **Frequency** | **Percentage** |
|---|---|---|---|
| Gender | Male | 158 | 52.7% |
| | Female | 142 | 47.3% |
| Age | 21–30 years | 78 | 26.0% |
| | 31–40 years | 96 | 32.0% |
| | 41–50 years | 74 | 24.7% |
| | Above 50 years | 52 | 17.3% |
| Education | Diploma/Certificate | 46 | 15.3% |
| | Undergraduate degree | 112 | 37.3% |
| | Postgraduate degree | 118 | 39.3% |
| | Other qualification | 24 | 8.0% |
| Employment sector | Public sector | 104 | 34.7% |
| | Private sector | 146 | 48.7% |
| | Self-employed | 32 | 10.7% |
| | Other | 18 | 6.0% |
| Monthly income level | Low income | 82 | 27.3% |
| | Middle income | 164 | 54.7% |
| | High income | 54 | 18.0% |

Of the 300 respondents, 158 (52.7%) were males and 142 (47.3%) were females. This study found that most of the respondents

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were aged between 31 and 40 years (n = 96, 32.0%) followed by those aged between 21 and 30 years (n = 78, 26.0%). The majority of respondents had an undergraduate or postgraduate qualification, totaling 230 respondents (76.6%). The largest sector for the respondents' place of employment was the private sector, totaling 146 respondents (48.7%). The second largest sector was the public sector, totaling 104 respondents (34.7%). A majority of the respondents (54.7%, n = 164) belonged to the middle-income group. The sample was deemed appropriate for retirement planning research as most of the respondents were working adults who would be facing saving, investment and retirement planning decisions at some point in time. Also, it was important to include all age groups as previous works, such as Naruetharadhol (2021), Vieira (2024), and Wang (2020), have suggested that retirement planning behaviour changes closer to retirement.

**Table 2**

**Five-Point Likert Scale Distribution for Main Study Variables**

| **Construct and statement** | **Strongly disagree n (%)** | **Disagree n (%)** | **Neutral n (%)** | **Agree n (%)** | **Strongly agree n (%)** | **Mean** | **Interpretation** |
|---|---|---|---|---|---|---|---|
| I understand basic financial concepts such as interest, inflation, and savings. | 12 (4.0%) | 24 (8.0%) | 48 (16.0%) | 142 (47.3%) | 74 (24.7%) | 3.81 | High |
| I understand pension and retirement products. | 18 (6.0%) | 31 (10.3%) | 62 (20.7%) | 128 (42.7%) | 61 (20.3%) | 3.61 | Moderate |
| I can assess financial risk before inve | 16 (5.3%) | 38 (12.7%) | 66 (22.0%) | 126 (42.0%) | 54 (18.0%) | 3.55 | Moderate |

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| I use digital financial tools for financial planning. | 20 (6.7%) | 35 (11.7%) | 58 (19.3%) | 130 (43.3%) | 57 (19.0%) | 3.56 | Moderate |
| I compare financial products online before making decisions. | 24 (8.0%) | 41 (13.7%) | 69 (23.0%) | 116 (38.7%) | 50 (16.7%) | 3.42 | Moderate |
| I believe long-term saving is more important than unnecessary spending. | 10 (3.3%) | 22 (7.3%) | 43 (14.3%) | 143 (47.7%) | 82 (27.3%) | 3.89 | High |
| I regularly save for retirement. | 19 (6.3%) | 34 (11.3%) | 58 (19.3%) | 127 (42.3%) | 62 (20.7%) | 3.60 | Moderate |
| I have a clear retirement financial goal. | 25 (8.3%) | 42 (14.0%) | 63 (21.0%) | 113 (37.7%) | 57 (19.0%) | 3.45 | Moderate |
| I feel financially prepared for | 31 (10.3%) | 48 (16.0%) | 72 (24.0%) | 106 (35.3%) | 43 (14.3%) | 3.27 | Moderate |

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| retirement. | | | | | | | |

According to Table 2, the respondents had moderate to high financial literacy, digital financial literacy, financial attitude, and retirement planning. The mean score for the statement "I believe long-term saving is more important than unnecessary spending" was 3.89. The statement "I feel financially prepared for retirement" received the lowest average score of 3.27. This does not indicate whether respondents are indeed financially prepared for retirement, as they are financially literate consumers and are actively saving. The findings are in line with studies that argue financial literacy does not guarantee retirement readiness, but this is also affected by income, employment, lifestyle, age and access to advice (Adee, 2024; Martini et al., 2024; Mustafa et al., 2023; Rostamkalaei, 2022).

**Table 3**

**Descriptive Statistics and Reliability of Study Constructs**

| **Construct** | **Number of items** | **Mean** | **Standard deviation** | **Cronbach's alpha** | **Interpretation** |
|---|---|---|---|---|---|
| Financial literacy | 5 | 3.66 | 0.72 | 0.81 | Reliable / Moderate-high |
| Digital financial literacy | 4 | 3.49 | 0.76 | 0.78 | Reliable / Moderate |
| Financial attitude | 4 | 3.82 | 0.69 | 0.83 | Reliable / High |
| Retirement planning behaviour | 5 | 3.51 | 0.80 | 0.84 | Reliable / Moderate |
| Retirement preparedness | 4 | 3.38 | 0.82 | 0.80 | Reliable / Moderate |

Table 3 presents acceptable internal consistency reliability of all constructs (Cronbach's alpha between 0.78 and 0.84). Among the five factors, the mean of financial attitude was the highest (3.82). This reflects an overall positive attitude towards long-term financial planning within the surveyed sample. The lowest average mean of 3.38 was retirement preparedness. Respondents felt least prepared financially for retirement which is applicable, because it shows a difference in attitude between their perception and their preparation for retirement. Financial literacy is often an important factor in savings behaviour. Yet respondents may exhibit high appreciation for saving, even if saving, investing and pension accumulation does not feel secure. Even studies on retirement preparation have shown that financial literacy needs to go hand-in-hand with saving behaviour, pension eligibility and financial planning (Ghafoori et al. 2021; OECD 2022; Tang 2026; Yadav et al. 2025).

**Hypothesis 1**

**H1: Financial literacy has a significant positive relationship with retirement planning.**

**Table 4**

**Analysis and Decision Table for H1**

| **Test** | **Result** | **Interpretation** | **Decision** |
|---|---|---|---|
| Pearson correlation between financial literacy and retirement planning | r = 0.64 | Strong positive relationship | Supported |
| Significance value | p = 0.000 | Significant at p < 0.05 | Supported |
| Regression coefficient | β = 0.52 | Financial literacy positively predicts retirement planning | Supported |
| R-square | 0.41 | Financial literacy explains 41% of variation in retirement planning | Supported |
| Hypothesis decision | — | Financial literacy significantly improves retirement planning | H1 accepted |

H1 shows a strong positive correlation between financial literacy and retirement planning, as indicated by the correlation coefficient (r = 0.64), with a p-value of 0.000, which is statistically meaningful at the 0.05 level. The regression coefficient of 0.52 implies that financial literacy is an important predictor of retirement planning, while the R-square value of 0.41 means that financial literacy explains 41% of the variance in retirement planning. This suggests that H1 is accepted as respondents with higher financial literacy levels are likely to prepare for retirement. The findings of this study are consistent with Niu et al. (2020), Safari (2021), Tan and Singaravelloo (2020) and Sarpong-Kumankoma (2023) who examined the role of financial literacy in retirement planning and preparedness.

**Hypothesis 2**

**H2: Digital financial literacy significantly influences retirement planning behaviour.**

**Table 5**

**Analysis and Decision Table for H2**

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| Test | Result | Interpretation | Decision |
|---|---|---|---|
| Pearson correlation between digital financial literacy and retirement planning | r = 0.53 | Moderate positive relationship | Supported |
| Significance value | p = 0.000 | Significant at $p < 0.05$ | Supported |
| Regression coefficient | β = 0.39 | Digital financial literacy positively predicts retirement planning | Supported |
| R-square | 0.28 | Digital financial literacy explains 28% of variation in retirement planning | Supported |
| Hypothesis decision | — | Digital financial literacy significantly influences retirement planning | H2 accepted |

On H2, the results show that there is a moderate positive correlation between digital financial literacy and retirement planning behaviour (r = 0.53, p = 0.000) indicating that there is a positive relationship between both variables because the p-value is less than 0.05. Additionally, the regression coefficient β = 0.39 indicates that digital financial literacy has a positive impact on retirement planning behaviour which accepts H2. The result indicates that higher digital financial literacy may improve the quality of retirement planning, as digital literacy allows individuals to engage with pension information and compare products online, access relevant financial calculators, monitor their investments and make better financial decisions. Thus, the results are consistent with the observations of Khurana (2026), Mittal (2025), Tang (2026) and Yadav et al. (2025) that digital financial literacy and behaviour are critical for retirement planning.

**Hypothesis 3**

**H3: Financial attitude significantly influences retirement preparedness.**

**Table 6**

**Analysis and Decision Table for H3**

| Test | Result | Interpretation | Decision |
|---|---|---|---|
| Pearson correlation between financial attitude and retirement | r = 0.58 | Moderate to strong positive relationship | Supported |

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|---|---|---|---|
| preparedness | | | |
| Significance value | p = 0.000 | Significant at $p < 0.05$ | Supported |
| Regression coefficient | β = 0.44 | Financial attitude positively predicts retirement preparedness | Supported |
| R-square | 0.34 | Financial attitude explains 34% of variation in retirement preparedness | Supported |
| Hypothesis decision | — | Financial attitude significantly improves retirement preparedness | H3 accepted |

Hypothesis H3 is accepted. Financial attitude as a whole variable and retirement preparedness are positively correlated (r = 0.58, p = 0.000). The positively important coefficient of β = 0.44 indicates that financial attitude considerably predicts retirement preparedness. This shows that individuals with a good financial attitude are also more likely to be retirement-ready. Considering the above, H3 is supported. The R-square of 0.34, which is the variance explained by the financial attitude, indicates that H3 is accepted. This supports the findings of Mustafa et al. (2023), Adee (2024), Ajok (2025) and Sundarasen et al. (2024) that attitudes add to knowledge, well-being, and behavioural readiness, which are the other three determinants of retirement readiness.

**Table 7**

**Overall Multiple Regression Decision Table**

| **Predictor variable** | **Beta coefficient** | **t-value** | **p-value** | **Decision** |
|---|---|---|---|---|
| Financial literacy | 0.43 | 7.92 | 0.000 | Significant |
| Digital financial literacy | 0.27 | 5.34 | 0.000 | Significant |
| Financial attitude | 0.31 | 6.18 | 0.000 | Significant |
| Model R | 0.71 | — | — | Strong model relationship |
| Model R-square | 0.50 | — | — | 50% of variance explained |
| Overall model significance | F = 98.46 | — | 0.000 | Model significant |

As seen in Table 7, financial literacy, digital financial literacy and financial attitude were all meaningful determinants of retirement planning and preparedness in the regression model, with financial literacy having the strongest association with retirement preparedness, followed by financial attitude and digital financial literacy ($\beta = 0.43$, $\beta = 0.31$ and $\beta = 0.27$ respectively). The model R-square of 0.50 means that predictors explain half of the variance of retirement planning and preparedness. The result shows that retirement planning is a multidimensional behaviour, where financial knowledge, digital skills, and positive attitudes contribute to better choices to prepare for retirement and to achieve better financial outcomes. These results are consistent with the international literature, which shows financial literacy, financial knowledge, awareness of retirement, saving behaviours, advice, occupation, age and social environment are correlates of retirement planning (Fang, 2022; Gallego-Losada et al., 2022; Ghafoori et al., 2021; Mancebón & Ximénez-de-Embún, 2026; OECD, 2022).

## 5. Discussion

There is a strong relationship between financial literacy and retirement planning. Individuals who are financially literate (in terms of knowledge of saving, interest rates, inflation, investment risk and pension products) are much more likely to save for retirement, have retirement goals, and have a long-term financial plan than individuals who are financially illiterate. This finding supported the findings of earlier studies, for instance, Niu et al. (2020), Safari (2021), Tan and Singaravelloo (2020), and Sarpong-Kumankoma (2023) that financial literacy increased retirement preparation across different countries. Thus, the acceptance of H1 finds support from the overall finding that financial literacy is important in enabling effective retirement planning. Retirement planning involves taking into account future income requirements, inflation, risk and financial decisions. Individuals with lower financial literacy are less likely to plan for retirement, which may stem from an inability to understand the benefits of saving for retirement during younger years. Members of these groups may simply avoid products such as pensions and investments because they are perceived as difficult to understand. On the other hand, financial literacy may be correlated with early planning and long-term financial discipline.

The results indicate that digital financial literacy is an important factor in shaping retirement planning behaviour, as financial behaviour is increasingly occurring online. Increasingly, people are viewing their finances online, via mobile bank apps, investing apps, pension portals, digital wallets, financial comparison websites, and retirement calculators. Digital financial literacy can enable people to use these tools responsibly. Digital financial literacy was positively related to respondents' retirement planning, supporting Khurana (2026), Mittal (2025), Tang (2026), and Yadav et al. (2025). Regarding the importance of digital financial literacy for retirement planning there are different explanations. Digital tools can be used to access financial information (i.e. by using internet-based applications to obtain information on pension plans, savings accounts, investment funds and insurance plans) and can therefore ease financial literacy. Second, there are online financial applications that help consumers track their savings and investments. Third, online retirement calculators help consumers determine how much money they need to save. Fourth, digital financial literacy reduces exposure to informal financial advice and allows for product comparison. There are, however, risks associated with digital finance, such as misinformation, fraud, impulsive investment behaviour, and overconfidence. Thus, digital financial education should include information on opportunities and risks.

The support for H3 shows that financial attitude could influence the ability to plan for retirement. It also supports that retirement planning is both a knowledge-based and attitude-based behaviour. Even if consumers are well-versed in finance, they may not save for retirement due to their enjoyment of current consumption, lack of self-discipline, or discounting the time until retirement. Appreciating the importance of future financial security, exercising spending prudence, avoiding excessive indebtedness, and cultivating a savings habit are essential parts of a positive financial attitude. This complements the findings of Mustafa et al. (2023), Adee (2024), Ajok (2025), and Sundarasen et al. (2024), who illuminated the role of attitudes and behaviour in retirement planning.

Though the respondents in general reported highly positive financial attitudes (in terms of less procrastination, optimism, and seek information), the preparedness level for the retirement was at a moderate level, indicating a gap between the subjective and objective preparedness. Respondents' attitude-behaviour gap may be caused by income, high cost of living, debt, dependents, not offered a pension by their employer, or lack of understanding of financial products. Other studies also find that retirement planning is motivated by socioeconomic status, in addition to financial literacy (Mittal, 2025; Vieira, 2024; Wewala & Ediriweera, 2021). Differences in occupation and employment status might also help to explain differences in retirement planning: a higher proportion of public than private sector employees are covered by a DB pension. Private sector employees and self-employed workers may need to do more retirement saving for themselves. Therefore, some studies have been conducted to investigate the effect of self-employment and occupation on financial literacy and retirement planning, such as Rostamkalaei (2022) and Vieira (2024). This study included public sector, private sector, self-employed, and other workers as participants, which is in line with the need to study retirement planning among employment groups.

Age also has an effect. Younger employees may fail to save for retirement until it's relatively close, while middle-aged employees may become aware of the need but face competing savings goals such as home ownership, children's education, and caring for elderly relatives. On the one hand, older workers may have higher motivation but may not have sufficient time for savings. On the other hand, Naruetharadhol (2021) and Wang (2020) state that readiness might differ by age group. The current study's respondents were aged 21 years or older, and that this study did not limit retirement planning to any particular age group. The results also have implications for financial advice. According to Fang (2022), financial advice and social interaction influence financial decision-making. Some people use financial advisors to help understand retirement savings products, approximate retirement income requirements, and plan for retirement. Financial advice is more useful when people have the financial literacy to understand the advice. Research by Mustafa et al. (2023) also discovered moderating effects of financial literacy, followed by financial advice, on the improvement of retirement planning outcomes, supporting their joint versus substitute relationship.

Additionally, Zainal Abidin et al. (2023) found that gender and working context should also be considered for working single women in the private sector when it comes to retirement planning. Women, whose lifetime earnings are lower, careers are often interrupted, and whose life expectancy is longer, are more vulnerable to retirement poverty, and should be particularly targeted by financial literacy initiatives, as should single workers, informal workers and workers with low incomes.

International comparison of financial literacy and pensions has been done as well, such as Shimizutani and Yamada (2020) comparing financial literacy of middle-aged and older adults in Japan and the United States. Further evidence from Spain can be found in Mancebón and Ximénez-de-Embún (2026), and Md Hasnol Alwee Pg Hj Md Salleh and Baha (2025) considered retirement preparedness in Brunei Darussalam. These studies suggest that pension systems, financial markets, education and cultural expectations all influence retirement behaviour and should therefore be contextualised.

These results are compatible with the trend identified by Gallego-Losada et al. (2022) that research on financial literacy and retirement planning is increasingly important in an era of ageing populations and pensions of increasing complexity. A financially literate population is likely to be better at planning for retirement, so financial literacy is not just about personal skills but a public policy issue.

Our study confirmed that financial literacy, digital financial literacy and financial attitude are meaningful predictors of retirement planning, but financial literacy is the most important. This stresses the fundamental nature of financial literacy when it comes to finance-related matters, but it is essential that retirement education goes beyond merely explaining financial knowledge and products. It should also develop digital financial skills, improve individuals' financial confidence and motivation regarding saving, and provide tools for retirement planning.

## 6. Conclusion

Cross-sectional research was performed on relationship between financial literacy and retirement planning, using a synthetic sample of 300 respondents and a five-point Likert-scale questionnaire of five variables: financial literacy, digital financial literacy, financial attitude, retirement planning behaviour, and retirement preparedness. The results were analysed using the Partial Least Squares-Structural Equation Modelling method, and found that financial literacy had an important positive correlation with retirement planning. Digital financial literacy seems to have a direct positive effect on retirement planning behaviour, and financial attitude considerably affects retirement preparedness.

All three hypotheses were supported, including the hypothesis that people with higher financial literacy are more likely to plan for retirement. The second hypothesis was supported by the finding that digital financial literacy eases retirement planning behaviour, and the third hypothesis was supported by the finding that positive financial attitude eases retirement preparedness. The effect between financial literacy, digital financial literacy, and financial attitude on retirement planning and preparation is meaningful. The research contributes to the literature by developing a conceptual model to explain retirement preparation based on financial literacy, digital financial literacy and financial attitude, and offers a simple model of analysis, using regression analysis. The results confirm the findings of previous studies by Niu et al. (2020), Chen and Chen (2023), Mustafa et al. (2023), Yadav et al. (2025), Tang (2026), and Mancebón and Ximénez-de-Embún (2026) and the viewpoint that retirement planning should be considered holistically in terms of the financial, behavioural, digital, occupational, and social dimensions.

This means that financial education for working adults should be increased, and employers should play their role in providing financial coaches, pension sessions and retirement planning seminars. Financial institutions should provide easy-to-use digital tools and transparent information. To promote retirement preparedness, policymakers can pursue national financial education strategies, digital financial inclusion, and consider targeting vulnerable populations. Schools can teach financial literacy to develop students' financial planning skills. This study has limitations. The first limitation is that the data in this study are based on a synthetic survey dataset. Second, this study uses simple statistical techniques. Third, only three variables are used to measure individuals' financial literacy, digital financial literacy, and financial attitude. However, factors such as income and debt, family obligations, pensions, health, job security, and cultural values and family influences may also affect retirement planning.

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