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Original Article

## Mediating effect of Education Level on the Relationship Between Financial Literacy and Financial Behaviour of Employees in Higher Education Institutions

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**Keywords:**

*Financial Literacy,  
Financial Behaviour,  
Education Level,  
Mediation Analysis,  
Higher Education  
Institutions.*

This study explored the interplay between financial literacy, education level, and financial behaviour among employees in Higher Education Institutions. Drawing on a sample of employees from various departments within these institutions, the research investigates whether education level mediates the relationship between financial literacy and financial behaviour. Data were collected through a survey and analysed using SMARTPLS for mediation. The findings suggest that financial literacy has a statistically significant positive association with financial behaviour, financial literacy has a statistically significant positive association with Education level but the relationship between education level and financial behaviour is not statistically significant. Additionally, the mediating effect of education level between financial literacy and financial behaviour was not statistically significant. These results have implications for financial literacy programs and policies targeting employees in higher education institutions with the major focus pointing towards building of financial literacy levels regardless of the employees' education level if the financial behaviour is to be positively influenced.

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**INTRODUCTION**

The financial behaviour of individuals may be a key factor in defining how an individual lives and contributes to the economic and productive activities of the areas where they are domiciled. Some of the factors that may affect the financial behaviour of individuals include financial literacy levels and the level of education. Financial literacy, the ability to understand and effectively apply various financial concepts, is essential for making informed financial decisions (Grohmann & Menkhoff, 2015; Grohmann, 2018). Studies have indicated that individuals with higher levels of financial literacy tend to engage in more responsible financial behaviours, such as saving for retirement, managing debt, and investing wisely (Lusardi & Mitchell, 2014). However, the extent to which education level mediates the relationship between financial literacy and financial behaviour remains unclear, particularly among employees in higher education institutions.

Employees in higher education institutions face unique financial challenges, including navigating complex retirement plans, managing personal loan obligations, and coping with fluctuating incomes that are aligned to the changing tasks that they undertake such as supervision and consultancy or advisory services. Therefore, understanding the factors that influence their financial behaviour is crucial for promoting financial well-being among this population. This study aims to address this gap by examining the mediating role of education level on the relationship between financial literacy and financial behaviour among employees in higher education institutions.

**LITERATURE REVIEW****Financial Literacy**

Financial literacy has been widely studied in the context of personal finance and has been shown to have a significant impact on various financial

outcomes. Individuals with higher levels of financial literacy are more likely to engage in behaviours such as budgeting, saving, and investing, which contribute to their long-term financial well-being (Hastings et al., 2013). OECD (2021) presents one of the most comprehensive definitions of financial literacy as the knowledge and understanding of financial concepts and risks, as well as the skills and attitudes to apply such knowledge and understanding in order to make effective decisions across a range of financial contexts, to improve the financial well-being of individuals and society, and to enable participation in economic life. The foregoing is in line with Khawar and Sarwar (2021), assertion that financial literacy is more than just financial knowledge, it includes utilization of rational and practical abilities, attitudes and or enthusiasm. This seems to be the same line propagated by Lusardi and Mitchell (2011), who argue that to be financially literate, one should be able to process economic information and make informed financial decisions. The different angles from which financial literacy is looked at by different scholars is neither unique nor only applicable to the concept. Different scholars have looked at financial literacy in different ways but there are common areas of interest among most of the ways that the concept is defined.

OECD (2013), offer a classic definition that financial literacy is a combination of awareness, knowledge, skills, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing. Meanwhile, Huston (2010), argues that there are two parts to financial literacy; understanding in the form of knowledge and use in the form of application of the knowledge. An analysis of the ways in which financial literacy is defined exposes the fact that there are two dimensions to the concept. These include, the abstract conceptualization of the term in the form of

knowledge and understanding and the practical application of the knowledge that one can generally refer to the behaviour reflected in the form of action taken as a result of the knowledge possessed. A number of scholars have endeavoured to link the knowledge and application components in the way they conceive financial literacy. It is in line with this that Mukokoma et al., (2018), defined financial literacy as a set of knowledge, skills, attitude, behaviour and financial systems that allow individuals or entities to make informed and effective decisions about financial planning, wealth accumulation, savings, pensions and debt among others. For purposes of this study, financial literacy was conceived as the level of knowledge and skills about money matters an individual possesses and the extent to which the person applies these to take financial decisions about savings, investments, debt management and general wealth creation.

### **Financial Behaviour**

Financial behaviour is the application component of money management knowledge and skills. The way an individual, household or firm implements knowledge about money management for the current and future wellbeing of those involved or their stakeholders reflects financial behaviour. From different scholars, including Hilgert and Mogarth (2013), financial behaviour has been looked at from the point of decision-making or action towards the different financial literacy components of savings, investment, budgeting, debt and to some extent retirement planning. Xiao (2008) for example defines financial behaviour as any human behaviour related to money management with examples being cash, credit and savings behaviour. In the line, Perry and Morris (2005) defined financial behaviour as a person's propensity to budget, save, and control expenditure. Meanwhile, Hasibuan et al., (2018) defined financial behaviour as how good a person manages cash, debt, savings and expenses. They further argue that exhibiting responsible individual financial behaviour is reflected in how a person treats, manages and uses their personal financial resources. Despite the focus of the above

authors being on a person, one can argue that the same can be transposed to a household and or organisation.

According to Hilgert et al., (2003), financial behaviour is in the form of better financial decisions in terms of managing cash, credit, savings and investments. Away from looking at financial behaviour in terms of the actions around savings, debt, investment and expenditure, Saurabh and Nandan (2018) define financial behaviour as the handling of one's income and financial situation. The authors further indicate that financial behaviour means the ability of individuals to manage their finances to be successful in life. Similarly, Mukokoma et al., (2018) indicated that financial behaviour is the economic conduct of an individual on monetary issues related to financial planning, wealth accumulation, debt and pension management. Pursuing the same school of thought that generalizes financial behaviour, Dinga et al., (2011) used a clear description to indicate financial behaviour as a composite function of economic behaviour, currency as a monetary factor, together with goods and non-autonomous financial flows. Interestingly, Nofsinger (2001), swaps the words and instead defines behavioural finance as how people actually behave in a financial setting. He adds that behavioural finance is a study of how psychology affects financial decisions, corporations, and the financial markets.

For purposes of this study, financial behaviour is conceptualized as the application of money management knowledge and skills in ensuring the current and future financial wellbeing of individuals or stakeholders in a household/organisation.

### **Financial literacy and Financial behaviour**

The connection between financial literacy and financial behaviour has been a popular subject of research with scholars studying this from different angles and contexts. Some scholars have focused on the general financial literacy as a concept while others have disaggregated the concept into specific components such as knowledge or skills

and compared the same with actionable financial behaviour such as management of cash (Carswell, 2009), management of debt (Liebermann & Flint-Goor, 1996), investment decisions or expenditure. Morgan and Trinh (2019), explored the determinants of financial literacy and its impact on financial behaviour, with results indicating that higher financial literacy levels lead to better financial behaviour through improved financial decision-making. Similarly, Hasler et al., (2018), examined financial fragility through linking financial literacy and ability to cope with economic shocks, and observed that financial literacy levels enhanced coping ability and as such impacted on overall financial behaviour.

In a study by Robb and Woodyard (2011), where the focus was on financial knowledge and behaviour, the results indicated that personal knowledge presented a significant impact on financial behaviour. However, the results also indicated that financial knowledge was not the most dominant factor in influencing behaviour, instead income was found to present the most significant impact on financial behaviour in line with the findings of Perry and Morris (2005). Similar arguments are fronted by Rahman et al., (2021), who indicated that financial literacy contributes to financial well-being by enhancing an individual's ability to make informed financial decisions. The foregoing is similar to the findings of Mireku et al., (2023), whose results indicate that with higher financial literacy, students are more likely to have sound judgement on financial matters, take better financial decisions and engage in prudent financial management practices. The same findings were found to hold by Purwidiyanti et al., (2022), although at a low level of testing, they found out that financial experience does not affect financial behaviour among Small Medium Enterprises.

At the individual decision-making level regarding the different financial literacy decisions, scholars have also studied the link between financial literacy and these decisions. Lusardi and Michell (2021), in their paper 'Financial Literacy and the need for Financial Education,' identify the need for comprehensive financial education to improve

financial behaviour in the context of retirement planning. In another study by Clark et al., (2017), about retirement planning, results indicated that higher financial literacy leads to better retirement preparedness. In a study that focused on gender differences in financial literacy, Bucher-Koenen, et al., (2021), assert that financial literacy significantly influences investment behaviour. This conclusion is not distant from that reached earlier by Van Rooij, et al., (2011) who also provided evidence that individuals with higher literacy levels were more likely to invest in stocks. In another study that focused on the interplay between financial literacy, use of financial advice and financial behaviour, Stolper and Walter (2019), discovered that financial literacy improves household saving behaviour through the enhancement of the appetite for financial advice. In a conference keynote address Lusardi (2019), justified the need for financial education to enhance financial literacy by highlighting how financial literacy affects saving and investment behaviour, debt management, and overall financial planning, leading to greater wealth accumulation and better financial decision-making.

Basing on the available literature, the dominant view emphasizes the importance of financial literacy in improving financial outcomes and behaviour (Widyastuti et al., 2020; Song et al., 2023). It is from this angle that the first hypothesis was formulated as follows:

*H<sub>1</sub>: Financial literacy has a significant positive association with financial behaviour among employees in higher education institutions.*

### **Financial literacy, Education level and Financial behaviour**

The rational expectation is that education level will positively influence the financial behaviour of individuals or decision-makers. This assertion may require testing because education level may not necessarily imply financial literacy that scholars have almost in all cases indicated to have a positive relationship with financial behaviour. A



number of scholars have delved into studies that relate education from different angles to financial behaviour and in some cases financial literacy. Generally, education level has overtime been identified as a significant predictor of financial behaviour. Several studies have found that individuals with higher levels of education tend to engage in more responsible financial behaviours, such as saving for retirement and avoiding high-interest debt (Hilgert et al., 2003). In a study by Behrman et al., (2012), financial literacy was found to be positively associated with education level, individuals with higher levels of education typically exhibit greater financial literacy and hence wealth accumulation.

A global survey on literacy around the world by Klapper et al., (2015), reported on the clear correlation between education attainment level and financial behaviour in taking decisions regarding savings and debt management. In a study about what drives demand for financial services in the emerging markets, Cole et al., (2011) argued that financial education significantly increases the likelihood of using financial products. This particular study focused on the role of education and financial literacy in influencing the demand for financial services (financial behaviour) in emerging markets. According to Hastings et al., (2013), available evidence indicates a relationship between education level and financial literacy and by implication financial behaviour but the causality in these relationships is inherently difficult to pin down. A systematic review and bibliometric analysis by Goyal and Kumar (2020) also emphasized the role of education in enhancing financial literacy and subsequently influencing financial behaviour.

In line with the above literature, Kadoyo and Khan (2020), in their study of financial literacy in Japan, also analysed the influence of education on financial knowledge, behaviour and attitude and their results indicated that Education among other variables such as use of financial information are positively correlated with financial behaviour. A number of other studies (Yakoboski et al., 2020,

Hasler et al., 2018) have all indicated a level of correlation between education and financial behaviour through its effect on financial knowledge. Even if available literature indicates that education is correlated with financial behaviour, the mechanisms through which it influences financial behaviour are not fully understood. One potential explanation is that education level serves as a proxy for financial literacy, with individuals with higher levels of education possessing greater knowledge and understanding of financial concepts (Lusardi & Mitchell, 2014). Focusing specifically on financial education, Fernandes et al., (2014) in their study related financial literacy, financial education and financial behaviour and the findings indicated that financial education explained only 0.1% of the change in financial behaviour.

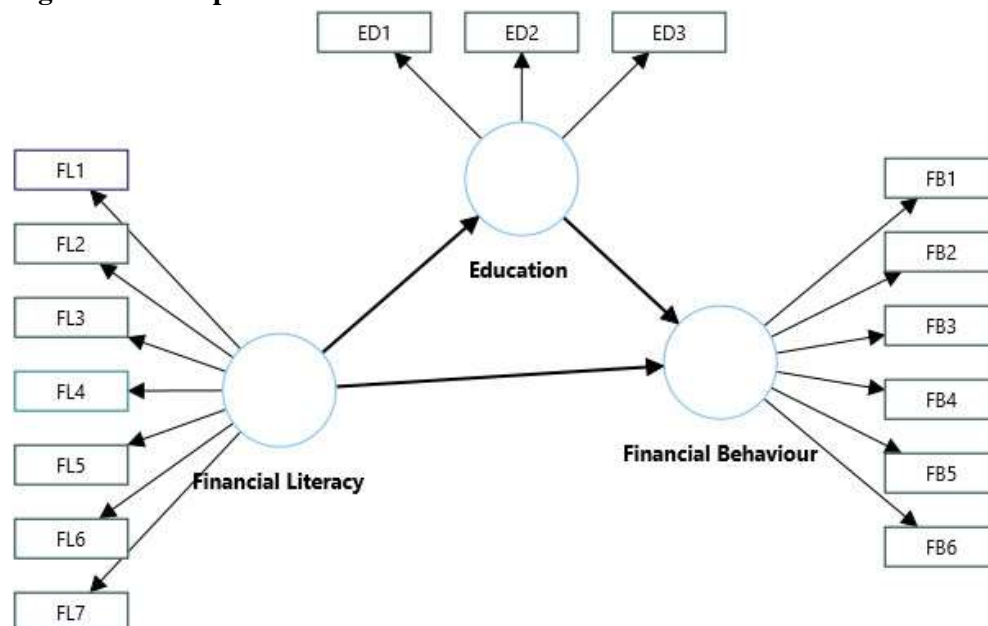
Despite the growing body of research on financial literacy and financial behaviour, few studies have examined the mediating role of education level in this relationship, particularly among employees in higher education institutions. Given the unique financial challenges faced by this population, understanding the interplay between financial literacy, education level, and financial behaviour is essential for developing targeted interventions and policies to promote financial well-being. It is on the above basis that the following hypotheses are crafted:

*H<sub>2</sub>: Financial literacy has a significant positive association with Education level among employees in higher education institutions.*

*H<sub>3</sub>: Education level has a significant positive association with financial behaviour among employees in higher education institutions.*

*H<sub>4</sub>: The relationship between financial literacy and financial behaviour is mediated by Education level among employees in higher education institutions.*

The conceptual model is hence reflected as per the image below

**Figure 1: Conceptual model**

**Source:** Generated by research using SMARTPLS 4

## METHODOLOGY

### Research Design

In this study, a positivist paradigm was adopted since quantitative data was the focus of what was being sought in order to unravel the mediating role of education level on the relationship between financial literacy and financial behaviour of employees in higher education institutions. A cross sectional correlation survey design was followed to collect data using self-administered questionnaires shared both virtually and physically to employees of higher education institutions. This design was found appropriate since it allows for a snapshot of the study variables at a relatively low cost and in a timely manner (Levin, 2006; Creswell & Creswell, 2018). It also allows for examination of relationships between the variables of interest (Setia, 2016; Friis & Sellers, 2009).

### Population, Sample size and sampling procedure

The target population for this study was 12,659 employees working with higher education

institutions based on the most recent state of Higher Education and Training in Uganda by the National Council for Higher Education (NCHE, 2022). From the above population, a representative sample of 388 employees was selected based on Slovin's formula<sup>1</sup> for sample size determination at a 95% confidence level and margin of error of 0.05 (Yamane, 1967; Israel, 2013; Sugiyono, 2016). In order to raise the required number of respondents, convenience sampling was combined with quota sampling, where a large number of instruments were shared with the potential respondents and from the instruments received back, a total of 388 were used after data cleaning.

### Data collection Instrument and measurement of variables

A self-administered questionnaire was shared with the potential respondents both as a google form and as physical copies of selected potential respondents. Most of the instruments received back were virtual instruments through the google form with just a few physical instruments being received back.

<sup>1</sup>  $n = N \div (1 + Ne)$  where  $n$  = Number of samples,  $N$  = Total population and  $e$  = Error tolerance.

In order to measure the variables of interest, data on participants' levels of financial literacy, was collected on a modified Financial Literacy Assessment Scale following Lusardi and Mitchell (2011). Education level was measured through three key indicators including highest level of Academic qualification, Financial education certification and number of years of schooling within the bio data section of the instrument. Financial behaviour was measured using self-report items assessing behaviours such as saving, investing, planning for the future and managing debt.

### Data Analysis

Mediation analysis was conducted using structural equation modelling (SEM) using SMARTPLS 4 to test the proposed mediation model. Bootstrapping was used to estimate the significance of the indirect effects. The results

from this analysis are presented in the section that follows.

## RESULTS

The results are presented in this section starting with the descriptive statistics from the data set followed by the correlation test and later on the mediation test results. A total of 400 instruments were shared out both as google doc link (350) and hard copies (50). Of these 343 responses were received back from the google doc link and 49 hard copy instruments were also received back. All the responses from the google doc link were fully filled up and made it to the final sample of responses used while from the hard copy documents, 45 instruments were added to raise the targeted sample size of 388 respondents. Below is a table showing the descriptive demographic information about the respondents

**Table 1: Descriptive statistics**

| Factor                  | Category                   | Frequency  | Percentage |
|-------------------------|----------------------------|------------|------------|
| Sex                     | Male                       | 221        | 57         |
|                         | Female                     | 167        | 43         |
|                         | <b>Total</b>               | <b>388</b> | <b>100</b> |
| Highest Education Level | High School or below       | 5          | 1.3        |
|                         | Ordinary Diploma           | 16         | 4.1        |
|                         | Bachelor's Degree          | 143        | 36.9       |
|                         | Post graduate Diploma      | 64         | 16.5       |
|                         | Professional Qualification | 1          | 0.3        |
|                         | Master's Degree            | 128        | 33.0       |
|                         | PhD                        | 31         | 8.0        |
|                         | <b>Total</b>               | <b>388</b> | <b>100</b> |
| Employment Status       | Casual worker              | 28         | 7.2        |
|                         | Contract employee          | 221        | 57.0       |
|                         | Permanent and pensionable  | 77         | 19.8       |
|                         | Others                     | 62         | 16.0       |
|                         | <b>Total</b>               | <b>388</b> | <b>100</b> |

Preliminary analyses examined the correlations between financial literacy, education level, and financial behaviour. The main analysis tested the proposed mediation model, including paths from financial literacy to financial behaviour ( $H_1$ ), from financial literacy to education level ( $H_2$ ), from Education level to financial behaviour ( $H_3$ ) and the mediation effect of education level on financial literacy and financial behaviour ( $H_4$ ).

The significance of the indirect effect was assessed using bootstrap methods.

### Measurement Model Assessment

#### Reliability and Validity Assessment

#### lity and Validity Assessment

Preliminary assessment of the reliability and viability of the measurement model through factor loadings, Cronbach's Alpha coefficients,

Composite reliability and Average variance extracted was found adequate for structural analysis. All factor loadings except for FL<sub>7</sub> were above the acceptable threshold of 0.7 (Hair, 2006; Hair et al., 2022; Ringle et al., 2018; Sallis et al., 2021). In addition to the above, the Average Variance Extracted (AVE) and the composite reliability for all constructs were above the thresholds of 0.7 as indicated in table 2, showing convergent validity and reliability are established. The measurement model is also indicated in figure 1.

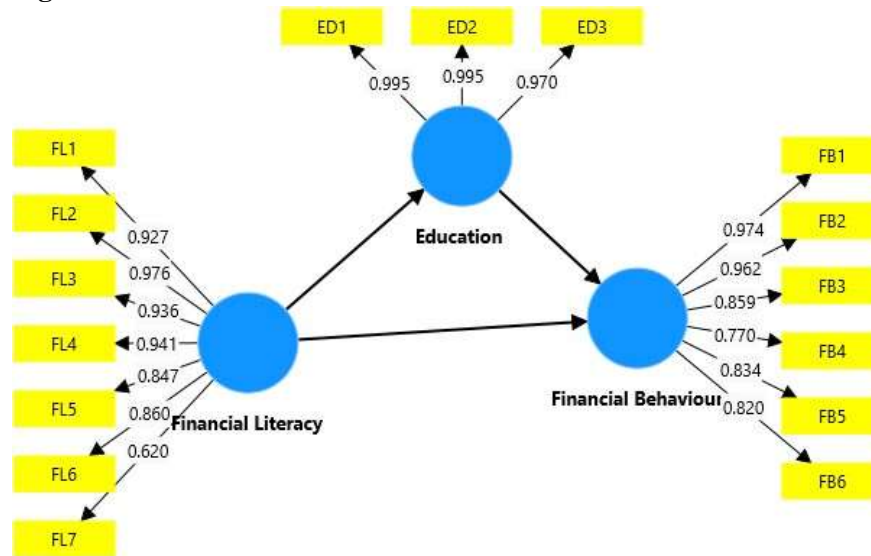
To examine discriminant validity, Fornell and Larcker (1981) and Heterotrait Monotrait (HTMT) criteria (Dirgiamto, 2023; Henseler et al., 2015) were used and tables 3 and 4 output results indicate that the square roots of AVE for each construct is higher than its correlation with other constructs (Fornell & Larcker, 1981) and the recommended requirements for discriminant validity were met by the HTMT indices that are below the threshold of 0.85 (Henseler et al., 2015). This means that discriminant validity was also established and that the structural model could then be assessed.

**Table 2: Reliability statistics**

| Scale               | Loadings           | Cronbach's Alpha ( $\alpha$ ) | Composite Reliability (rho_a) | Composite Reliability (rho_c) | Average Variance Extracted (AVE) |
|---------------------|--------------------|-------------------------------|-------------------------------|-------------------------------|----------------------------------|
| Education           |                    | 0.986                         | 0.999                         | 0.991                         | 0.973                            |
| ED <sub>1</sub>     | 0.995              |                               |                               |                               |                                  |
| ED <sub>2</sub>     | 0.995              |                               |                               |                               |                                  |
| ED <sub>3</sub>     | 0.970              |                               |                               |                               |                                  |
| Financial Literacy  |                    | 0.948                         | 0.963                         | 0.959                         | 0.762                            |
| FL <sub>1</sub>     | 0.927              |                               |                               |                               |                                  |
| FL <sub>2</sub>     | 0.976              |                               |                               |                               |                                  |
| FL <sub>3</sub>     | 0.936              |                               |                               |                               |                                  |
| FL <sub>4</sub>     | 0.941              |                               |                               |                               |                                  |
| FL <sub>5</sub>     | 0.847              |                               |                               |                               |                                  |
| FL <sub>6</sub>     | 0.860              |                               |                               |                               |                                  |
| FL <sub>7</sub>     | 0.620 <sup>2</sup> |                               |                               |                               |                                  |
| Financial Behaviour |                    | 0.937                         | 0.958                         | 0.950                         | 0.774                            |
| FB <sub>1</sub>     | 0.974              |                               |                               |                               |                                  |
| FB <sub>2</sub>     | 0.962              |                               |                               |                               |                                  |
| FB <sub>3</sub>     | 0.859              |                               |                               |                               |                                  |
| FB <sub>4</sub>     | 0.770              |                               |                               |                               |                                  |
| FB <sub>5</sub>     | 0.834              |                               |                               |                               |                                  |
| FB <sub>6</sub>     | 0.820              |                               |                               |                               |                                  |

<sup>2</sup> Despite the factor loading for FL<sub>7</sub> being less than 0.708 the minimum recommended factor loading that generates a contribution that would be in excess of 50%, it was not deleted in the assessment because it had no effect on the reliability as indicated by AVE index without its deletion.



**Figure 2: Measurement model**

The Partial Least Squares Structural Equation Model (PLS-SEM) output is indicated in figure 2 above showing the Latent variables (financial literacy, Education and financial behaviour) and the indicators or manifest variables for each with their loadings.

**Table 3: Discriminant validity: Fornell and Larcker Criterion**

|                     | Financial Literacy | Education | Financial Behaviour |
|---------------------|--------------------|-----------|---------------------|
| Financial Literacy  | 0.873              |           |                     |
| Education           | 0.119              | 0.987     |                     |
| Financial Behaviour | 0.223              | 0.261     | 0.88                |

**Table 4: Discriminant validity: Heterotrait-Monotrait Ratio of Correlation (HTMT)**

|                     | Financial Literacy | Education | Financial Behaviour |
|---------------------|--------------------|-----------|---------------------|
| Financial Literacy  |                    |           |                     |
| Education           | 0.113              |           |                     |
| Financial Behaviour | 0.224              | 0.272     |                     |

### Structural Model Assessment

This assessment was undertaken using bootstrap t-statistics to generate path coefficients with 5,000

replicates under a bias-corrected bootstrap at a significance of 0.05. The results of this assessment are indicated in table 5 below

**Table 5: Direct relationship Path Coefficients and Confidence Interval bias Corrected**

|          | Sample mean (M) | SD    | t-value | P values | Bias  | 2.5%   | 97.5% |
|----------|-----------------|-------|---------|----------|-------|--------|-------|
| FL-> ED  | 0.225           | 0.050 | 4.457   | 0.000    | 0.002 | 0.118  | 0.315 |
| ED -> FB | 0.065           | 0.050 | 1.289   | 0.198    | 0.001 | -0.040 | 0.156 |
| FL -> FB | 0.250           | 0.048 | 5.106   | 0.000    | 0.004 | 0.142  | 0.334 |

FL: Financial Literacy; ED: Education level and FB: Financial Behaviour

From the table above, the p values for the paths Financial Literacy and Education level (FL-> ED) as financial Literacy and Financial behaviour (FL -> FB) are below the threshold of 0.05 which indicates that financial literacy has a significant positive relationship with both education level and

Financial behaviour. This is supported by the confidence interval bias corrected for the two paths where the range does not involve a zero figure between the 2.5% and 97.5% intervals. However, the path for Education level and Financial Behaviour (ED → FB) is greater than 0.05 meaning that the relationship between education level on financial behaviour is not statistically significant. This is also supported by the confidence interval bias in which the range between the 2.5% and 97.5% includes a zero in

between since it changes from -0.040 to +0.156. The above results indicate that hypotheses one and two ( $H_1$  and  $H_2$ ) are supported while hypothesis three ( $H_3$ ) is not supported. The explanatory power of the model was assessed using  $R^2$  criteria (Shmueli & Koppius, 2011) and the model fit tested using Standardised Root Square Residual (SRMR) (Hu & Bentler 1999; Henseler et al., 2016). The results of these tests are reflected in table 6 below.

**Table 6: Model fit and R2 of the structural model**

|                     | <b>R-square</b> | <b>R-square adjusted</b> |
|---------------------|-----------------|--------------------------|
| Education           | 0.050           | 0.047                    |
| Financial Behaviour | 0.072           | 0.067                    |
| <b>Model fit</b>    | <b>Value</b>    |                          |
| SRMR                | 0.064           |                          |

From the above table, Financial literacy has a weak explanatory power of the level of education indicated  $r^2$  of 0.050 as well as a low explanatory power of financial behaviour as indicated by  $r^2$  of 0.072. This means that financial literacy explained 5% of the change in education level and the combined effect of financial literacy and education level explained a 7.2% variation in financial behaviour. On the model fit, the SRMR generated was 0.064 which is below the acceptable cut-off of 0.08 (Hu & Bentler 1999; Steiger, 2007), suggesting a model fit.

### Mediation Analysis

The mediation results indicated in table 7 show that the total effect and direct effect were significant in the mediation model, however the indirect effect was not statistically significant as indicated by both the p-value and the t-value. Additionally, the variance accounted for was 0.0566 or 5.66% which is within the range of 0 to 20%, signifying that there is no mediation of education level between financial literacy and financial behaviour (Hair et al., 2022). This implies the hypothesis four ( $H_4$ ) is not supported.

**Table 7: Mediation analysis**

| <b>Type of effect</b> | <b>Effect</b> | <b>Path Coefficient</b> | <b>p-value</b> | <b>t-value</b> | <b>Remark</b>                   |
|-----------------------|---------------|-------------------------|----------------|----------------|---------------------------------|
| Total effect          | FL→FB         | 0.265                   | 0.000          | 5.590          | Significant total effect        |
| Indirect effect       | FL→ED→FB      | 0.015                   | 0.230          | 1.201          | Indirect effect not significant |
| Direct effect         | FL→FB         | 0.250                   | 0.000          | 5.106          | Significant direct effect       |
| VAF                   | IE/TE         | 5.66%                   |                |                |                                 |

Conclusion: There is no Mediation of Education level between Financial literacy and financial behaviour FL: Financial Literacy; ED: Education level and FB: Financial Behaviour

From the table above;

The total effect of financial literacy (FL) on financial behaviour (FB) is significant with a path coefficient of 0.265. The p-value of 0.000 indicates that this effect is statistically significant, and the t-value of 5.590 confirms the strong effect.

The indirect effect of financial literacy on financial behaviour through education (ED) is not statistically significant, as indicated by the p-value of 0.230 (which is greater than 0.05). The path coefficient of 0.015 suggests a very small effect, and the t-value of 1.201 supports the lack of significance.

The direct effect of financial literacy on financial behaviour remains significant with a path coefficient of 0.250, a p-value of 0.000, and a t-value of 5.106. This indicates that financial literacy directly influences financial behaviour independently of education.

The VAF value of 5.66% indicates the proportion of the total effect that is mediated through education, this proportion is not statistically significant. Therefore, since this value is less than 20%, it suggests that there is no mediation effect of education between financial literacy and financial behaviour.

## DISCUSSION

This study sought to examine the interrelationship between financial literacy, education level and financial behaviour of employees in higher education institutions with a major focus on the mediation effect of education level using Structure Equation Modelling (SEM).

In agreement with a number of earlier studies (Morgan & Trinh, 2019; Hasler et al., 2018; Rahman et al., 2021; Song et al., 2023; Mireku et al., 2023), findings indicated that there is a significant positive relationship between financial literacy and financial behaviour. The finds corroborate with conclusions by Lusardi and Messy (2023), who argued that financial literacy matters and helps individuals make savvy financial decisions with less reliance on framing, with better understanding of financial information provided, greater understanding of insurance dynamics and improved comfort while using basic financial instruments. This also collaborate with the findings by Abdallah et al. (2024), who argue that higher digital financial literacy significantly improves financial behaviour, particularly in terms of financial knowledge, awareness, and decision-making. These findings also rhyme with Kasim et al. (2024), who indicated that financial literacy significantly enhances scam awareness and financial behaviour among retirees. In conformance with the findings, another study by Mohta & Shunmugasundaram, (2024), concluded that higher financial literacy reduces the

likelihood of engaging in risky investments even among individuals with high risk tolerance levels.

In terms of financial literacy and education level, the results indicated a significant positive association between financial literacy and education level. This agrees with previous studies (Behrman et al., 2012; Hastings et al., 2013; Goyal & Kumar, 2020) that found a similar association between the variables. This also collaborate with findings from a number of recent studies about financial literacy and education. Lusardi and Streeter (2023), emphasize the importance of education in the interest of building financial literacy in their pursuit of promoting Education and financial literacy in the United states. Keiser and Lusardi (2024) in their paper financial literacy and financial education emphasize the interplay between financial literacy and financial education.

On the mediation effect of education level between financial literacy and financial behaviour as well as relating education level and financial behaviour, the results indicate a lack of mediation effect as well as a non-significant association between education level and financial behaviour. Results from earlier studies present mixed conclusions around this, with a number of studies not directly linking education as a mediating variable but as an independent variable on its own. On its own Education has a significant effect on financial behaviour according to the Xiao and Porto (2017). The difference between the findings could be due to a number of factors that may include the study populations and geographical location of the study participants. Another study by Garret et al. (2014) on adoption of mobile payment technology by consumers reported findings that collaborate with these study findings. In the financial behaviour measured by use of mobile phones for payment, there were no significant statistical differences between respondent with different education levels.

Limitations of a study are common in all studies carried out worldwide and this study is no exception. The major limitations of this study can

be categorised into three; Data related, design related and scope related limitations.

The data related limitations are as a result of the sample limitation and use of self-reported data. The focus on only employees within higher education institutions may limit generalisability of the findings to other types of organisations. While the self-reported data could be prone to biases such as social desirability bias, where respondents may overestimate their financial literacy or report financial behaviours they believe are more socially acceptable. To minimise the effect of this limitation, a number of indicators were used while measuring the same variable and averages used for analysis.

In terms of design related limitations, even if SMARTPLS is effective for mediation analysis, it has limitations in handling small sample sizes or more complex models. It may also overlook nuanced relationships between variables due to its focus on direct and indirect effects. In order to address effect of this limitation, a reasonably large sample size was used in the study based on the target population.

In terms of the scope related limitations, the study does not explore in detail the type or quality of education that employees received. Different educational backgrounds, such as specialized versus general education, could impact the relationship between education level and financial behaviour differently. Additionally, the study examined the mediating role of education level, it did not explore other potential mediators or moderators, such as personality traits, financial experiences, or cultural factors, which could provide additional insights into the relationship between financial literacy and financial behaviour. In order to address the effect of this particular limitation, the focus of the study is clearly explained to enable the readers apply the results appropriately.

Even with the above limitations, the results of this study contribute to the understanding of how financial literacy relates with financial behaviour among employees in higher education institutions.

Specifically, the findings shed light on the mediating role of education level in the relationship between financial literacy and financial behaviour among the respondents.

## **PRACTICAL IMPLICATIONS OF THE STUDY**

The study's findings provide actionable insights for improving financial behaviour among employees in higher education institutions through targeted interventions. The significant positive relationship between financial literacy and financial behaviour underscores the need for robust financial literacy programmes. By enhancing employees' financial understanding, institutions can facilitate better financial decision-making, reduce reliance on external financial advice, and increase comfort with financial instruments.

The positive association between education level and financial literacy suggests that higher education institutions should integrate financial education into their curricula. This integration can elevate staff's financial literacy, fostering a more financially savvy community within educational environments.

However, the study also revealed that education level does not mediate the relationship between financial literacy and financial behaviour. This indicates that while higher education enhances financial literacy, it does not directly translate into better financial behaviour when considered as an intermediary. Therefore, institutions should focus on direct financial literacy interventions rather than relying solely on educational attainment to improve financial behaviours.

Overall, these findings call for a comprehensive approach that combines direct financial literacy programs with educational initiatives to effectively enhance financial behaviours. By implementing such strategies, higher education institutions can better equip their employees to manage their finances, ultimately leading to improved financial well-being and reduced financial stress.

## CONCLUSION

This study sheds light on the intricate relationships between financial literacy, education level, and financial behaviour among employees in higher education institutions. It confirms the significant positive impact of financial literacy on financial behaviour, aligning with the existing body of previous studies. The findings underscore the importance of enhancing financial literacy to empower individuals to make informed financial decisions, reduce susceptibility to financial scams, and improve overall financial well-being.

Furthermore, the study highlights the positive association between education level and financial literacy, suggesting that higher educational attainment contributes to better financial knowledge. However, the lack of a significant mediation effect of education level between financial literacy and financial behaviour suggests that while education enhances financial literacy, it does not automatically translate into improved financial behaviour.

These insights emphasize the need for targeted financial literacy programs within higher education institutions. By directly addressing financial literacy through specialized interventions and integrating financial education into curricula, institutions can better equip their employees to manage their finances effectively. This comprehensive approach promises to foster a financially literate and resilient community, capable of navigating the complexities of personal finance with confidence and competence.

In conclusion, the study advocates for a dual strategy that combines direct financial literacy interventions with educational initiatives, thereby promoting a holistic enhancement of financial behaviours among individuals in higher education settings.

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