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Examining Debt and Financial Literacy Through a Cultural Lens: Educators' Sustainable Household Practices in Marawi

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ABSTRACT

Objective: This study aims to examine the financial literacy, debt literacy, and financial management practices of higher education institution educators in a culturally unique context. Methodology: A descriptive and correlational research was employed and a survey was administered to educators to explore levels of financial knowledge, financial behavior, financial attitude, debt literacy, financial management practices, and demographic factors. Findings: Educators generally showed a solid grasp of financial concepts, though weaknesses emerged in compound interest and inflation. Marital status, business education, and non-household head status were associated with higher financial knowledge. Financial behaviors were generally, yet engagement with financial products and investment was limited. Muslim respondents scored lower in both financial and debt literacy, reflecting socio-cultural and religious influences discouraging interest. Only 9% of respondents answered the debt literacy item correctly. Theoretical and/or Methodological Contributions: This study demonstrates how socio-cultural and demographic variables differ in household financial management practices. Research Implications: Findings highlight the need for targeted financial education for women, larger households, and Muslim educators, and call for culturally sensitive financial literacy programs within higher education institutions.

Keywords: Financial Knowledge; Financial Behavior; Financial Attitude; Debt Literacy; Household Financial Management Practices

JEL: G50, G51, G53, I31, Z12, J15

INTRODUCTION

Financial literacy is indeed a global priority. It enables informed decisions, fosters inclusion, and narrows down inequality (OECD, 2023; Lusardi, 2022). Financial literacy is particularly urgent in emerging economies where households are vulnerable to financial shocks. In the Philippine context, there is an observed financial vulnerability among teachers as empirical studies have found out rising indebtedness and chronic financial stress (Casingal & Ancho, 2021; Ubiña, 2025). Teachers are also often caught in a "debt trap" due to reliance on informal borrowing and weak understanding of debt terms (Ferrer, 2017). Financial challenges undermine not only personal well-being but also teaching effectiveness.

Consequences of low financial literacy includes poor credit management, low savings, weak investment engagement. These negatively influences teachers' professional engagement and job satisfaction (Temonio, 2025). With the fact that teachers' financial knowledge shapes pedagogical practices and student outcomes (Louis et al., 2024), hence, it can be argued that enhancing teachers' financial capability is both a professional development and educational quality issue.

Extensive research exists on financial literacy, yet two notable gaps remain. First, most studies focus on basic and secondary school teachers, while higher education institution (HEI) faculty—who are expected to be thought leaders and role models for sustainable financial practices—remain underexplored (Casingal & Ancho, 2021). Second, while financial literacy and debt literacy are often studied independently, their interaction with household financial management practices has rarely been investigated, particularly in cultural and religiously distinct contexts. Recent contributions underscore the need to integrate socio-cultural and religious dimensions into financial capability research, especially where Islamic finance principles—such as the prohibition of riba (interest) and the emphasis on ethical financial conduct—strongly shape financial behaviors (Fadillah & Lubis, 2024; McGregor et al., 2024).

Mindanao State University (MSU) in Marawi offers a distinct context through which these gaps can be examined. Located in a post-conflict city with a predominantly Muslim population, MSU brings together a culturally diverse academic community whose financial behaviors are shaped by intertwined economic, social, and religious norms. Studying the financial literacy, debt literacy, and household financial management practices of its educators yields both empirical and theoretical contributions: empirically, it provides rare evidence from a culturally distinct and underexplored context; theoretically, it advances established financial literacy models (World Bank, 2015; Lusardi & Tufano, 2009; Hilgert et al., 2003) by explicitly embedding socio-cultural and religious dimensions as core determinants.

In this light, this study pursues three main objectives. First, this study assesses the financial literacy, debt literacy, and household financial management practices of HEI educators in MSU-Marawi. Secondly, this study examines the linkages among financial knowledge, attitudes, and behaviors, and how these translate into household-level financial outcomes. Finally, this study tests the moderating influence of demographic factors such as household size, income, and religious affiliation. As such, the study contributes by extending global financial literacy frameworks to an Islamic and post-conflict context. Most importantly, this study offers policy-relevant insights for the development of culturally aligned financial education programs for Filipino educators.

CONCEPTUAL AND THEORETICAL FRAMEWORK

This present research is underpinned by three pivotal frameworks: 1) Financial Literacy, adapted from the World Bank Group's Financial Capability study (2015); 2) Debt Literacy, which draws upon the foundational work of Lusardi and Tufano (2009); and 3) Household Financial Management Practices and Financial Education Opportunities, informed by the comprehensive analysis conducted by Hilgert, Hogarth, and Beverly (2003).

In this study, Debt Literacy and Financial Literacy function as independent variables, while demographic profiles are treated as moderating variables, ultimately influencing the dependent variable, Household Financial Management Practices. Conceptually, financial literacy encompasses individuals' capacity to analyze, understand, and utilize economic information to make informed decisions related to wealth accumulation, pensions, debt management, and comprehensive financial planning, a definition supported by Lusardi and Mitchell (2013). The research contributions of Lusardi and Mitchell culminated in the establishment of what they termed "The Big Three" framework for measuring financial literacy in 2011, focusing on knowledge of basic financial concepts, understanding of interest rates, and comprehension of risk diversification. Moreover, Debt Literacy is also based on Lusardi and Tufano's (2009) model, which emphasizes understanding compounding interest, borrowing costs, and debt management choices. Household Financial Management Practices is grounded from the study of Hilgert et al. (2003), highlighting the connection between financial knowledge and household-level behaviors in budgeting, saving, credit, and investment.

While these frameworks provide strong foundations, they remain largely economically oriented and culturally neutral. They do not fully capture how religious norms, socio-cultural contexts, and institutional influences shape financial behaviors in non-Western, faith-driven environments such as Marawi. This study extends existing models by explicitly integrating Islamic finance principles, socio-cultural capital theory and institutional theory into the framework.

Islamic finance has been labelled as 'prohibition-driven' finance as it forbids interest and speculation-based transactions (Kaya, 2023). Hence, Islamic finance operates within an ethical framework grounded in Islamic law (Shariah), emphasizing social justice, equity, and the welfare of society. It prohibits exploitative practices such as interest (riba), excessive uncertainty (gharar), and gambling (maysir), promoting fairness and ethical conduct in financial transactions (Baloch & Chimenya, 2023). The prohibition of riba (interest) directly influences debt literacy by limiting exposure to conventional interest-bearing products. Likewise, emphasis on risk-sharing and profit-loss arrangements affects household investment and borrowing behaviors. Zakat and ethical financial obligations shape attitudes toward savings, wealth redistribution, and community-based financial practices. Together, these principles help explain why Muslim educators may show lower scores in conventional debt literacy but higher engagement in alternative, Sharia-compliant practices.

In addition, this study is also grounded by the Socio-Cultural Capital Theory of Bourdieu (1986). In this vein, financial literacy outcomes are mediated not only by individual knowledge but also by cultural capital like values, norms, traditions and also by social capital such as community networks and cooperative systems. In Marawi, financial decision-making is often embedded in collective household structures, extended kinship ties, and community-based savings systems. Furthermore, this study is also guided by Institutional theory. The latter further suggests that educators' behaviors are shaped by normative pressures in the form of religious teachings, professional expectations and also molded by cultural-cognitive frames such as perceptions of debt and risk. With these perspectives, the study advances the theoretical conversation beyond traditional Western-centric models, positioning culture and religion as active moderators rather than passive background variables. Figure 1 shows the interplay of these variables.

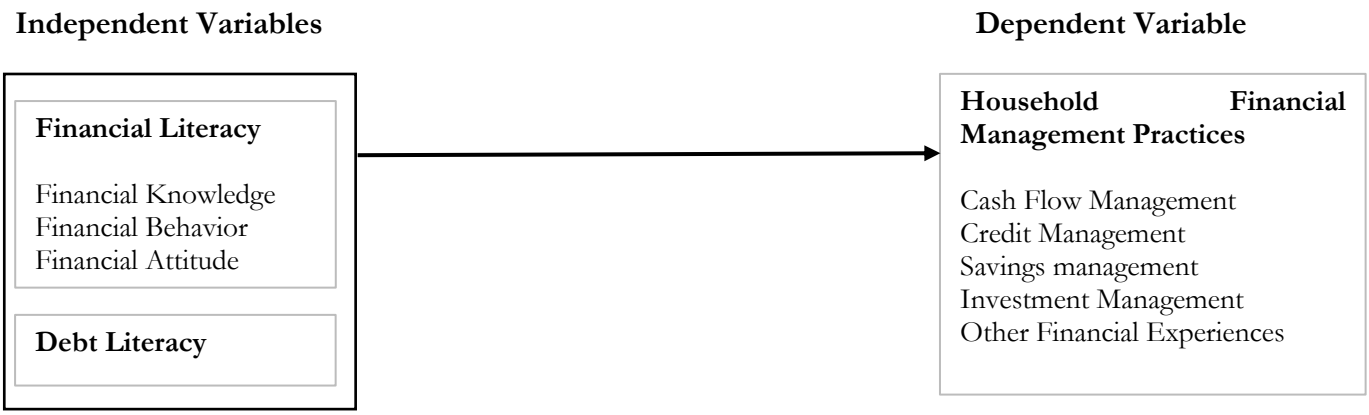

FIGURE 1. Conceptual Framework of the Study

LITERATURE REVIEW

FINANCIAL LITERACY, DEBT LITERACY, AND SUSTAINABILITY

Financial literacy has long been linked to sustainability and resilience. The United Nations Sustainable Development Goals (SDGs) highlight literacy as critical for reducing poverty, improving financial well-being, and promoting inclusive economic growth. The OECD-GFLEC-INFE symposium reaffirmed that poor financial literacy can impose significant systemic risks, whereas effective financial education strengthens resilience against economic shocks and enhances participation in the financial system (OECD-GFLEC, 2018).

Classical definitions portray financial literacy as the ability to manage financial resources responsibly for lifelong well-being, echoing sustainability principles (Warner & Agnello, 2012). However, contemporary research underscores broader implications. A financially literate population not only improves household outcomes—through better debt management, savings, and retirement planning (Lusardi & Mitchell, 2011; Deng et al., 2013)—but also generates positive societal and macroeconomic spillovers.

Recent empirical work confirms this convergence of financial literacy and sustainability. Financial literacy is positively associated with environmental sustainability across countries, suggesting that financially capable individuals also make more sustainable ecological choices (Salahodjaev and Sadikov, 2025). Studies also highlight how Islamic financial literacy shapes sustainable investment behavior and provides alternatives to interest-based debt, which is critical in Muslim-majority settings (Fadillah & Lubis, 2024; McGregor et al., 2024). In addition, bibliometric analyses identify financial literacy as a driver of sustainable financial inclusion, mediated by digital finance and ESG priorities (Nguyen et al., 2025). Furthermore, recent findings show that literacy in sustainable finance directly influences investors' willingness to engage in socially responsible and climate-conscious investment products (Rahman & Amin, 2025). Together, these insights establish financial and debt literacy as critical enablers of sustainability at both the household and societal levels. In the case of Filipino educators, strengthening financial literacy within a Quadruple Helix framework not only addresses personal indebtedness but also contributes to broader development goals by equipping educators to serve as role models and multipliers of sustainable financial practices.

METHODOLOGY

RESEARCH DESIGN

The descriptive, inferential and correlational method of research was used in this study. This type of research helps understands the nature of the variables being studied. It examines how changes in one variable are associated with changes in another. Correlational study assesses relationships between variables studied.

RESEARCH LOCALE AND CONTEXT

The research locale is in Mindanao State University- Marawi City Philippines. The university has a critical role as the melting pot of culturally diverse faculty and students. After the Marawi siege, it has revitalized its role as a peace-building advocate and intensified its programs to a more holistic approach to well-being, in its efforts to alleviate poverty and end extremism in the region. Its diverse faculty composition, coupled with the strong influence of Islamic and socio-cultural norms, provides a unique context for studying financial behaviors.

SAMPLING AND RESPONDENTS

Sample size was computed using Cochran's Formula based on the population of tertiary educators in MSU-Marawi. For this study, 259 was deemed as the appropriate sample size. The sampling design used was Stratified Random Sampling. Sample size of 259 was proportionately divided among the different colleges.

RESEARCH INSTRUMENT

The researcher administered a survey to systematically collect data from faculty members regarding their levels of financial literacy, debt literacy, financial education opportunities, and household financial management practices. To assess these variables, the following measurement tools were utilized: 1) Financial Literacy, composed of financial knowledge, financial behavior and financial attitude, was adopted from the World Bank Group's Financial Capability study (2015); 2) Debt Literacy, adopted from Lusardi and Tufano (2009); and 3) Household Financial Management Practices and Financial Education Opportunities, as adapted from Hilgert, Hogarth, and Beverly (2003). These tools provided a structured approach to evaluating the participants' financial knowledge, skills, and behaviors. The survey consists of five parts. The first part of the survey captures respondents' profiles and consent. The second part measures faculty members' financial literacy which consists of two sections: financial knowledge and numeracy skills, and 2) financial behavior and attitudes. Respondents were requested to fill in the blank with the answer that comes to mind and also to check corresponding answers in some questions. Moreover, respondents were requested to rate their extent of behavior and attitude on a Likert Scale of 1 to 10, 1 being the lowest and 10 as the highest. The third part gauges the debt literacy of respondents by checking on boxes of corresponding choices. The fourth part explores the educators' extent of household financial management practices. Respondents were further requested to mark check their chosen responses. The fifth part asks on the extent of financial education opportunities. This part also asks specific recommendations from faculty members on ways to improve financial literacy, debt literacy, financial education opportunities and household financial management practices. The research instrument undergone expert panel evaluation. The financial literacy, debt literacy, and household financial management instruments were adopted from established studies (World Bank, 2015; Lusardi & Tufano, 2009; Hilgert et al., 2003).

DATA COLLECTION PROCEDURE

Prior to implementation, the study obtained ethical clearance (REC 2024-01) from the MSU Research Ethics Committee. Thereafter, the researcher sought permission from the University Vice Chancellor for Academic Affairs and university deans and heads in order to conduct both face-to-face and online surveys. Respondents were given free choice whether to opt for physical questionnaire or thru online, whichever mode is more convenient to respondents. The researcher then distributed both physically and online the survey questionnaires to the target respondents along with the informed letter of consent. Face-to-face surveys obtained informed consent from participants before administering research questionnaires. On the other hand, online surveys utilized Google Forms, provided pre-survey information, and obtained consent through an "I agree" checkbox. The study acknowledged potential participant discomfort related to financial topics and ensured confidentiality. Anonymity was strictly upheld, and a small incentive was offered as appreciation. Data collected through both methods was systematically organized for subsequent analysis. Data were retrieved physically for those who opt for physical survey and google forms were used to collect data for those online mode.

DATA ANALYSIS

The data were then subjected to descriptive statistical analysis in SPSS and Partial Least Squares- Structural Equation Modeling (PLS-SEM) via SmartPLS-SEM. Structural Equation Modeling (SEM) is a valuable approach for testing and enhancing theoretical models, allowing for the testing of models as a whole and providing insight into the causal relationships among variables in complex hypotheses that are linked to the models through statistical dependencies. It is grounded on testing a theoretical model connecting variables that is developed by the researcher before carrying out the research, using data collected during the study. The PLS-SEM technique was selected for the reasons of model complexity, exploratory theory building, data characteristics and prediction-oriented approach. Firstly, the conceptual model includes multiple latent constructs, several endogenous variables, and moderating effects (demographics and cultural-religious context), which are effectively handled by PLS-SEM compared to covariance-based SEM (CB-SEM). Secondly, since financial and debt literacy among Filipino HEI educators—especially in a post-conflict Islamic context—remains under-researched, PLS-SEM is well-suited for developing and extending theoretical frameworks. Thirdly, PLS-SEM is robust to non-normal data distributions and works well with medium sample sizes. Finally, unlike CB-SEM, which emphasizes model fit, PLS-SEM emphasizes prediction and variance explanation, aligning with the study's goal of explaining educators' financial behaviors. The structural model was tested using bootstrapping (5,000 subsamples).

Construct measurement was specified according to the theoretical relationship between constructs and their indicators (Jarvis et al., 2003; Hair et al., 2021). Specifically, financial attitude was modeled as a reflective construct because the attitude is an underlying latent disposition that manifests in the observed Likert items (farsightedness, saving orientation, achievement orientation). Reflective specification is appropriate where indicators are expected to be correlated and interchangeable. Cronbach's Alpha (0.832) exceeds the 0.70 threshold (Nunnally & Bernstein, 1994), indicating strong internal consistency. For composite reliability rho_a (0.874) & rho_c (0.870), both values are above 0.70, confirming construct reliability (Hair et al., 2019). Average Variance Extracted (AVE = 0.423) falls below the recommended cutoff of 0.50 (Fornell & Larcker, 1981), suggesting that FA explains less than 50% of variance in its indicators. However, since CR > 0.70, the convergent validity of FA is still considered acceptable despite low AVE, as long as discriminant validity is established (Hair et al., 2021).

Financial Knowledge (7- quiz items) was modeled as formative. Each quiz item (simple division/interest concepts/inflation/insurance/diversification) captures a distinct facet of knowledge; omitting any item changes the content domain of financial knowledge. Therefore, the items form the construct and are not required to be highly intercorrelated. This choice follows formative-index construction principles (Diamantopoulos & Winklhofer, 2001) and recent redefinitions of financial literacy as multidimensional/formative. Financial Behavior (budgeting, overspending, borrowing, monitoring, planning, choosing products, etc.) was modeled as formative for analogous reasons: the construct is best understood as an aggregate of distinct practices that together define behavior; indicators are causal and potentially lowly correlated. This follows common practice in financial capability research where behavioral indices are specified formatively. Debt literacy quiz, like that of Financial Knowledge was modeled as formative. Each quiz item (interest compounding on loan repayment time, credit payoff, and time value of money) captures a distinct facet and likewise omitting any item changes the content domain of debt literacy. Domain-specific practice constructs (Cash Flow Management, Credit Management, Savings Management, and Investment Management) were modeled as formative indicators as the items are not interchangeable, each item reflects a unique dimension, hence dropping items changes the conceptual domain. Table 1 shows the collinearity assessment of formative constructs.

Table 1. Collinearity Assessment of Formative Indicators

Construct	Indicator	VIF	Decision
Financial Behavior	B1–B20	1.21–3.917	Acceptable
Financial Knowledge	FKQ1–FKQ7	1.05–1.25	Acceptable
Debt Literacy	DL1–DL3	1.12–1.18	Acceptable
Cash Flow Mgt.	HMCF1–HMCF5	1.08–1.65	Acceptable
Credit Mgt.	HMCM1–HMCM4	2.06–2.83	Acceptable
Invest. Mgt.	HMIM1–HMIM8	1.10–1.64	Acceptable
Savings Mgt.	HMSM1–HMSM6	1.29–1.54	Acceptable

RESULTS AND DISCUSSION

FINANCIAL LITERACY: FINANCIAL KNOWLEDGE

The survey results on Financial Knowledge, as depicted in Figure 1, indicate that, on average, higher education institution (HEI) educators correctly answered 5.6 out of 7 financial literacy-related questions. Notably, 41% of the respondents were able to answer between 3 and 5 of the questions correctly, highlighting varying levels of financial knowledge among the faculty members.

Thirty-five percent answered 6 questions correctly and approximately twenty-three percent of the respondents - managed to provide correct responses to all 7 questions. The respondents appear to have a sound grasp of any of the basic concepts being tested. Moreover, results reveal that the question on compound interest had the lowest correct responses, followed by inflation impacts on prices. A fundamental misunderstanding of the concept of compound interest can have significant long-term consequences, particularly in relation to savings and wealth accumulation. Misconceptions about how compound interest works can lead individuals to make suboptimal financial decisions, potentially hindering their ability to maximize returns on savings and investments over time, which is crucial for building sustained wealth.

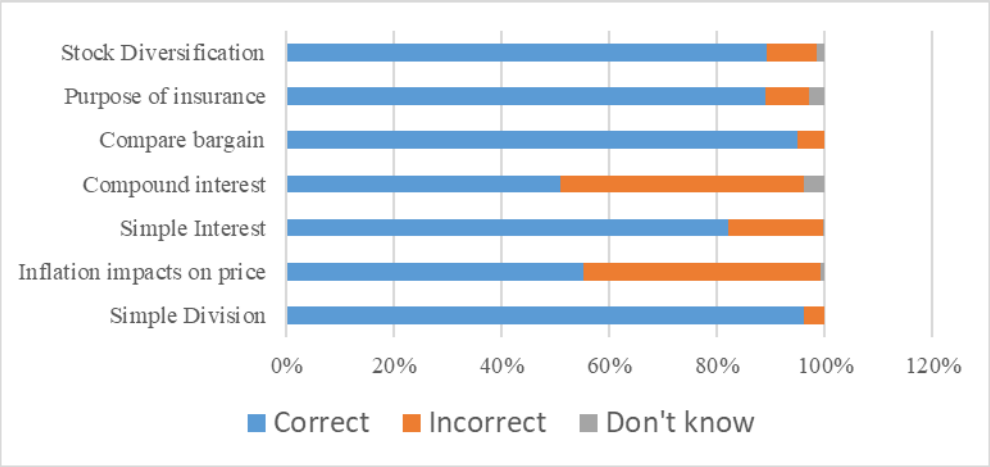

FIGURE 2. Financial Literacy Quiz Score

In this study, there are noteworthy findings on Financial Knowledge as per demographic profile. Married people had higher Financial Knowledge scores than their counterpart respondents. In addition, the empirical results show that respondents who have undertaken business and allied courses as part of their education has slightly higher scores than those respondents who have no business courses. This study also shows that, generally, respondents who have higher educational level also had better scores. Moreover, results of this study show that non-household heads and co-bread winners had slightly higher financial knowledge scores than primary breadwinners or household head.

Though there are mean differences, however, further statistical analysis as shown in Table 2 indicate that financial knowledge does not significantly differ across gender, educational background, breadwinner status, level of education, type of employment, marital status, level of education, or type of employment. However, there is a significant difference in financial knowledge based on religious affiliation. As such, this study further reveal that Muslim respondents had slightly lower Financial Knowledge scores using Lusardi and Mitchell's Financial Literacy Quiz. Indeed, there has been a growing interest in understanding the relationship between financial knowledge and religious affiliation, as researchers seek to uncover the potential factors that contribute to disparities in financial literacy and decision-making. Research has shown that financial literacy can be influenced by various socio-cultural factors, including religious beliefs and practices, which can shape individuals' financial behaviors and knowledge Nawi et al. (2022). The emphasis on community and ethical financial practices inherent in Islamic finance may provide a framework for improving financial literacy among Muslim teachers (Muslichah & Sanusi, 2019).

TABLE 2. Statistical Differences in terms of Financial Knowledge

Grouping Variable	Statistical Tool	U statistic	χ^2	df	p value	Comparison
Gender	Mann-Whitney U	6393	-	-	0.334	No statistical difference
Educational Background	Mann-Whitney U	4221	-	-	0.242	No statistical difference
Marital Status	Mann-Whitney U	7258	-	-	0.214	No statistical difference
Religious Affiliation	Mann-Whitney U	5321	-	-	<0.001**	With statistical difference
Level of Education	Kruskal-Wallis	-	2.68	2	0.262	No statistical difference
Type of Employment	Kruskal-Wallis	-	2.63	2	0.269	No statistical difference
Bread Winner	Kruskal-Wallis	-	0.563	2	0.755	No statistical difference

Note: Significant at p= 0.05 level. Islam (Mean= 5.4405; SD=1.10363) < Non-Islam (Mean= 5.9011; SD=1.07554)

FINANCIAL LITERACY: FINANCIAL BEHAVIOR

In this study, seven key components were used to measure behaviors related to fi-nancial management: budgeting, avoiding overspending, living within one's means, monitoring expenses, planning for unexpected expenses, making provisions for old age, and selecting financial products.

TABLE 3. Overall Financial Behavior Results

Statement Indicators	Mean	SD
Budgeting		
FB1 I plan how to use my money.	8.2201	1.73032
FB2 I adhere to my spending plan.	7.1737	1.87516
Not Overspending		
FB3 I have money left over after buying essentials	7.3822	2.10864
FB4 I refrain from spending it on non-essentials.	6.7761	2.30185
Living within Means		
FB5 I run short of money after buying essentials.	4.9846	2.47620
FB6 I run short every time there's a medical emergency.	6.1042	2.50595
FB7 I run short every time there's unexpected necessary expenses for children's school needs.	5.4903	2.61386
FB8 I run short because of impulsive and unplanned shopping.	5.3282	2.54807
FB9 My level of borrowing is	3.7375	2.42096
FB10 I borrow to buy food.	1.9807	1.79891
FB11 I borrow to repay other debt.	2.5637	2.27021
Monitoring expenses		
FB12 I am able to track expenses.	6.9961	2.54342
Planning for unexpected expenses		
FB13 I could cover an unexpected expense equivalent to a month's income.	5.5830	2.64206

FB14 I worry about unexpected expenses.	6.5290	2.58089
Planning for old age		
FB15 I have strategies in place that allow me to cover for my expenses in old age.	6.2703	2.27991
Choosing products		
FB16 I have financial products like shares, coop deposits, bank savings, insurance, etc.	5.5097	3.07574
FB17 I search for alternatives before choosing a financial product.	6.6448	2.52991
FB18 I check terms and conditions before deciding on a financial product.	7.0309	2.54247
FB19 I get information before selecting financial products.	7.4093	2.37772
FB20 I search until I find the best products for my needs.	7.6718	2.31368

Adopted from: World Bank Group's Financial Capability study (2015)

The highest-scoring financial behavior was related to budgeting, indicating that respondents generally plan how to allocate their money and strive to adhere to their financial plans. Conversely, the lowest-scoring financial behavior was related to the ownership of financial products, such as stocks, cooperative deposits, bank savings, insurance, and other investment options. This suggests that while respondents are adept at managing their day-to-day finances, they may be less engaged in or aware of opportunities for long-term financial growth and protection. Table 3 presents the financial behavior results of the respondents.

TABLE 4. Statistical Differences in terms of Financial Behavior

Grouping Variable	Statistical Tool	U statistic	χ^2	df	p value	Comparison
Gender	Mann-Whitney U	6591	-	-	0.572	No statistical difference
Educational Background	Mann-Whitney U	4582	-	-	0.744	No statistical difference
Marital Status	Mann-Whitney U	6806	-	-	0.049**	With statistical difference
Religious Affiliation	Mann-Whitney U	6846	-	-	0.700	No statistical difference
Level of Education	Kruskal-Wallis	-	3.43	2	0.180	No statistical difference
Type of Employment	Kruskal-Wallis	-	1.36	2	0.507	No statistical difference
Bread Winner	Kruskal-Wallis	-	0.639	2	0.727	No statistical difference

Note: Significant at p= 0.05 level. Married (Mean = 6.7507; SD=1.14151) > Non-Married (Mean= 6.6329; SD=1.27403)

Statistical analysis in Table 4 indicates that financial behavior does not significantly differ across gender, educational background, levels of education, types of employment, breadwinner status or religious affiliation. However, there is a significant difference in financial behavior based on marital status wherein married respondents have better financial behavior as compared to their single or separated peers. This difference can be attributed to several factors, including the increased financial responsibility that often accompanies marriage. The work of Lutfi et al. (2022) supports the same notion that marital status is a determinant of financial literacy and behavior. Such finding resonates also with the research results of Hakim et al. (2021) in highlighting that financial attitudes significantly affect financial behavior, with distinct differences observed based on marital status. Their study found that both married and unmarried individuals exhibit varying financial behaviors, suggesting that marital status plays a crucial role in shaping financial attitudes and, consequently, behaviors. On a similar lens, Lee's (2023) OLS regression analysis demonstrated that married individuals, regardless of gender, applied healthier financial behaviors compared to their single counterparts.

FINANCIAL LITERACY: FINANCIAL ATTITUDE

In addition, this study examined three components of financial capability that pertain to the underlying attitudes and motivations influencing individuals' financial behaviors. The three components are: people's farsightedness, their attitudes toward savings, and their achievement orientation. Farsightedness refers to the ability to plan for the future, while attitudes toward savings reflect how individuals prioritize saving over spending. Achievement orientation relates to the drive for financial success and the motivation to reach specific financial goals. These psychological and behavioral factors play a crucial role in shaping individuals' financial decision-making and overall financial well-being. Table 5 shows that the highest scored financial attitude pertains to working hard to the best.

TABLE 5. Overall Financial Attitude Results

	Mean	SD
Farsightedness		
FA1 I live for today.	5.8417	2.86824
FA2 The future will take care of itself.	4.8803	2.72747
FA3 I only focus on the short term.	4.0193	2.42636
Attitude towards Saving		
FA4 I try to save for the future.	7.8687	1.99955
FA5 I try to save for emergencies.	7.8571	2.02093
FA6 I try to save even if a small amount.	7.9073	2.11837
FA7 I am very disciplined when it comes to managing money.	6.7992	2.16702
Achievement Orientation	Mean	SD
FA8 I have many aspirations.	8.3475	1.83709
FA9 I always look out for opportunities for improving their situation.	7.7568	2.00935
FA10 I always work hard to be among the best at what I do.	8.5135	1.57094

Adopted from: World Bank Group's Financial Capability study (2015)

Further statistical analysis in Table 6 indicates that financial attitude does not significantly differ across gender, marital status, religious affiliation, levels of education, types of employment, or breadwinner status. All p-values are greater than 0.05, suggesting no significant differences in financial attitude based on these demographic variables.

TABLE 6. Statistical Differences in terms of Financial Attitude

Grouping Variable	Statistical Tool	U statistic	χ^2	df	p value	Comparison
Gender	Mann-Whitney U	6523	-	-	0.491	No statistical difference
Educational Background	Mann-Whitney U	3684	-	-	0.021**	With statistical difference
Marital Status	Mann-Whitney U	7471	-	-	0.408	No statistical difference
Religious Affiliation	Mann-Whitney U	7054	-	-	0.997	No statistical difference
Level of Education	Kruskal-Wallis	-	0.261	2	0.878	No statistical difference
Type of Employment	Kruskal-Wallis	-	0.101	2	0.951	No statistical difference
Bread Winner	Kruskal-Wallis	-	2.78	2	0.249	No statistical difference

Note: Significant at p= 0.05 level. With business education background (Mean = 7.5114; SD=1.10184) > Without business education background (Mean= 7.2940; SD= 1.39763)

However as can be seen in Table 6, for educational background, the Mann-Whitney U test yielded a U statistic value of 3684, with a p-value of 0.021. This result suggests that there is a statistically significant difference in

financial attitude between different educational backgrounds. This study reveals that those respondents who have taken up business and allied courses as part of their educational background have better financial attitude than those who have no basic background in business and finance. This result is consistent with recent studies indicating that individuals with formal education in business-related fields tend to exhibit more favorable financial attitudes compared to those without such backgrounds. This is also resonated in a study by Catacutan (2024) highlighting that teachers' financial literacy is significantly influenced by their educational background, with those from business-related fields demonstrating higher levels of financial knowledge and better financial attitudes (Catacutan, 2024).

DEBT LITERACY

This study adopted the Debt Literacy instrument from Lusardi and Tufano (2009). The first query asked respondents about interest compounding, and was stated as follows: "Suppose you owe Php 1,000 on your credit card and the interest rate you are charged is 20% per year compounded annually. If you didn't pay anything off, at this interest rate, how many years would it take for the amount you owe to double?". According to Lusardi & Tufano (2009), if one would ignore interest compounding, borrowing at 20% would lead to double in amount after five years. If the respondent knew about interest on interest or compounded interest would likely to select a number less than 5 years (Lusardi & Tufano, 2009). If the respondent knew of the "rule of 72" heuristic, it would be about 3.6 years (Lusardi & Tufano, 2009). In addition, Lusardi & Tufano (2009) guided that answers above five years would reflect misunderstanding of the concept of accrued interest and a selection of more than ten years implicate a major misunderstanding. Results in Table 7 show that 43 percent of the respondents got the correct answer which is less than 5 years. A sizeable 9 percent answered "do not know" which implicated the lowest level of debt literacy

TABLE 7. Debt Literacy Quiz Results

Quiz Item	Description	Correct Answer	% Correct	% Incorrect Response	% "Do Not Know" / Prefer Not
1	Loan repayment time	Less than 5 years	42.9	39.7	17.4
2	Credit card debt payoff	Never	18.2	54.1	27.7
3	Time value of money	They are the same	42.4	41	16.6

Debt literacy questions adopted from Lusardi and Tufano (2009)

The second question asks respondents to compute how many years it would take to pay off credit card debt without making payments on the outstanding debt. Given that one is only paying the interest, the principal obligation will never be reduced and thus continues to demand more interest. As shown in Table 6, only roughly 18 percent of the respondents got the correct answer which is never, you will continue to be in debt. A huge portion of 27 percent thought that it will take five to ten years to eliminate such debt. Almost 15 percent thought that it will take ten to fifteen years and almost 28 percent simply do not know the answer or preferred not to answer.

Finally, the third query aims to determine whether respondents understand the concept of the time value of money and how adept they are in comparing payment options. Forty-two percent got the correct answer which is the same. As shown in Table 8 below, this study reveals that there is widespread debt illiteracy among the respondents. There are only around 9 percent of the respondents who managed to answer correctly all the three questions. A concerning 39 percent did not have any correct response at all indicating a low level of debt literacy. More debt literacy programs could be tailored to fit the needs of Muslim educators.

TABLE 8. Overall Debt Literacy Quiz Score

Score	Frequency	Percent
0	100	38.6
1	74	28.6
2	62	23.9
3	23	8.9
Total	259	100.0

Furthermore, the statistical analysis in Table 9 indicates that debt literacy does not significantly differ across levels of education, types of employment, gender, educational background (though it is close to significant), marital status or breadwinner status. However, this study indicates a statistically significant difference in debt literacy based on religious affiliation, U=5292, p<0.001. Apparently, results revealed that Non-Muslim respondents have slightly higher debt literacy scores as compared to Muslim respondents and such difference has been proven to have a statistical difference. One possible implication for this difference is that some religious traditions place a strong emphasis on financial responsibility and debt avoidance. This result is resounded in the study of Wijaya (2024) highlighting the impact of religiosity on financial management behavior among Indonesian Muslims. Wijaya (2024) suggests that higher levels of Islamic religiosity may correlate with lower financial literacy, particularly in areas that conflict with Islamic financial principles, such as interest-based debt. Indeed, previous studies have already suggested that religious beliefs and practices can shape individuals' financial attitudes and behaviors (Didenko et al., 2023).

TABLE 9. Statistical Differences in terms of Debt Literacy

Grouping Variable	Variable of Interest	Statistical Tool	p	
Gender	DEBT_LITERACY	Mann-Whitney U	0.462	No statistical difference
Educational Background	DEBT_LITERACY	Mann-Whitney U	0.093	No statistical difference
Marital Status	DEBT_LITERACY	Mann-Whitney U	0.216	No statistical difference
Religious Affiliation	DEBT_LITERACY	Mann-Whitney U	<0.001**	With statistical difference
Level of Education	DEBT_LITERACY	Kruskal-Wallis	0.268	No statistical difference
Type of Employment	DEBT_LITERACY	Kruskal-Wallis	0.130	No statistical difference
Bread Winner	DEBT_LITERACY	Kruskal-Wallis	0.740	No statistical difference

Note: Significant at p= 0.05 level.

Also this study further supports the notion of Białowolski et al. (2020) in emphasizing that debt knowledge and skills are influenced by various demographic factors, including cultural background. Their findings indicate that cultural attitudes towards debt can significantly affect individuals' debt literacy levels (Białowolski et al, 2020). This aligns with the observation that non-Muslim teachers may have different cultural perspectives on debt and interest, which could contribute to their higher literacy scores. Additionally, religious communities may provide financial education or counseling resources that contribute to improved debt literacy (Garg & Singh, 2018). Another implication is that there could be more open discussion among non-Muslim groups on interest-bearing financial products as compared to Muslim groups as the discussion of Riba per se may be considered taboo because it is haram or unlawful.

HOUSEHOLD FINANCIAL MANAGEMENT PRACTICES

This study explored the household financial management practices including cash flow management, credit management, savings management, investment management and other financial experiences. Results in Table 10 show that household financial management practices of the respondents. As revealed in the investigation of cash flow management practices in Table 10, results show that around 17 percent of the respondents were unbanked. Study results also reveal that approximately 91 percent of the respondents reported paying bills on time. This is indeed one of the most basic cash flow practice is to pay bills on time. This current study shows that only 48% of the respondents reported keeping records or tracking expenses This result is the same with that of Thalib (2023) conducting an ethnomethodological study on household accounting practices within Islamic communities revealing that many individuals do not maintain proper financial records (Thalib, 2023). Likewise, the research conducted by Gustiningsih (2021) also supported the notion that many households rely on mental accounting rather than formal recordkeeping which can lead to inaccurately understanding their financial situation. This reliance on informal methods further underlines the need for structured financial management practices within these communities.

Secondly, this study sheds significant insights into credit management practices among respondents in a predominantly Islamic context. Data analysis shows that roughly 63% of respondents do not possess a credit card, in alignment with Islamic teachings that discourage interest-bearing debt, which is contrastingly a fundamental principle of conventional credit cards (Gelbard et al., 2014; Mokhtar et al., 2014). This non-prominence of credit

card ownership can again be attributed to the Islamic prohibition of riba (interest), leading many households to seek alternative financial products that comply with Sharia law (Sheikh, 2021; Mokhtar et al., 2014).

For savings management practices, this study reveals both strengths and weaknesses. Notably, 85% of respondents reported to have a savings account, which is indicative of financial engagement and recognition of the significance of saving (Nguyen, 2023). However, the fact that only 56% preserve an emergency fund elicits worry about financial preparedness for unexpected expenses, which is necessary for long-term financial stability (Kolekang et al., 2019). Additionally, the finding that 32% of respondents failed to save any portion of their monthly paycheck, along with 64% who do not invest money from their earnings, raises a significant gap in conscious financial planning and investment behavior, respectively (Nguyen, 2023). Despite these challenges, it is optimistic that 63% of respondents are saving for long-term goals, like education fund or home purchases, which suggests foresight and planning among the respondents (Nguyen, 2023). As such, these findings highlight the need for improved financial literacy and education to improve on building emergency funds and exploring varied savings options.

TABLE 10. Financial Management Practices

	Percentage of Respondents Reporting (n= 259)
Cash Flow Management Practices	
1. We have a savings or checking account.	83.1
2. We pay all bills on time.	91
3. We have financial recordkeeping system or track expenses.	47.5
4. We reconcile bank accounts every month.	44.4
5. We use a spending plan or budget.	58.30
Credit Management Practices	
1. We have a credit card.	36.7
2. We pay credit balances in full each month.	36.7
3. We review credit reports.	39.8
4. We compare offers before applying for a credit card.	46
Savings Management Practices	
1. We have savings account.	85.3
2. We have emergency fund.	56.4
3. We save money out of each paycheck.	68.3
4. We invest money out of each paycheck.	35.9
5. We save for long-term goals such as education, car, or home.	62.9
6. We have certificates of deposit.	29.7
Investment Management Practices	
1. We have money spread over different types of investments.	25.5
2. We have retirement plan account.	36.7
3. We have an investment account (ex. PAG-IBIG MP2 etc).	62.9
4. We have mutual funds.	28.96
5. We have SSS aside from GSIS account.	46.7
6. We have calculated our financial net worth in past two years.	29.3
7. We have investment in the stock market.	12.4
8. We have bonds.	9.7
Other Financial Experiences	
1. We have our own home so we do not pay rents.	73
2. We have our own transportation vehicle.	71
3. We plan and set goals for financial future.	71.4

4. We refinanced mortgage (or loan) for home improvements.	29
5. We read about money management.	51.7

Statement indicators adapted from Hilgert, Hogarth, and Beverly (2003). If households reported fewer than 25 percent of the practices, they were classified as "low"; households reporting between 25 percent and 70 per-cent of the practices were classified as "medium"; and those reporting more than 70 percent of the practices were classified as "high."

Apparently, the findings of this study also reveal a concerning trend in investment behavior among respondents, pointing a significant lack of diversification with several investment vehicles. Only 25% of respondents reported to have money spread across different types of investments. This could indicate a limited perspective about portfolio diversification, which is essential for reducing risk and thereby increasing potential returns (Shaheen et al., 2022). Interestingly, a notable 63% of respondents reported to have an investment account in the PAG-IBIG MP2 program, which reflects a preference for government-backed savings options but may also be indicative of reluctance in exploring more dynamic investment opportunities (Sorita, 2023). Another observation also is that even Muslim respondents were attracted to invest in MP2 implicating limited awareness on available financial products. The data further divulges that only 12% of respondents invest in the stock market which underscores a significant gap in engagement with traditional investment avenues that could potentially offer higher returns (Shaheen et al., 2022).

Lastly, for other financial experiences, the results indicate a relatively stable financial situation among respondents. Seventy-three percent (73%) reported to have their own homes, which eliminates the burden of rent payments thereby suggesting a degree of financial security (Mountain et al, 2020). Furthermore, the finding that only 52% of respondents engage in reading about money management suggests a potential gap in financial literacy, which is deemed vital to make informed decisions about investments and financial planning (Sarpong - Kumankoma et al., 2023; Son & Park, 2018). While the high rates of home and vehicle ownership indicate a solid foundation, there is still a clear need for improved financial literacy and proactive financial behaviors to ensure long-term financial well-being (Sarpong - Kumankoma et al., 2023; Son & Park, 2018).

RELATIONSHIP BETWEEN HOUSEHOLD FINANCIAL MANAGEMENT PRACTICES AND FINANCIAL KNOWLEDGE, ATTITUDES, BEHAVIORS, AND DEBT LITERACY

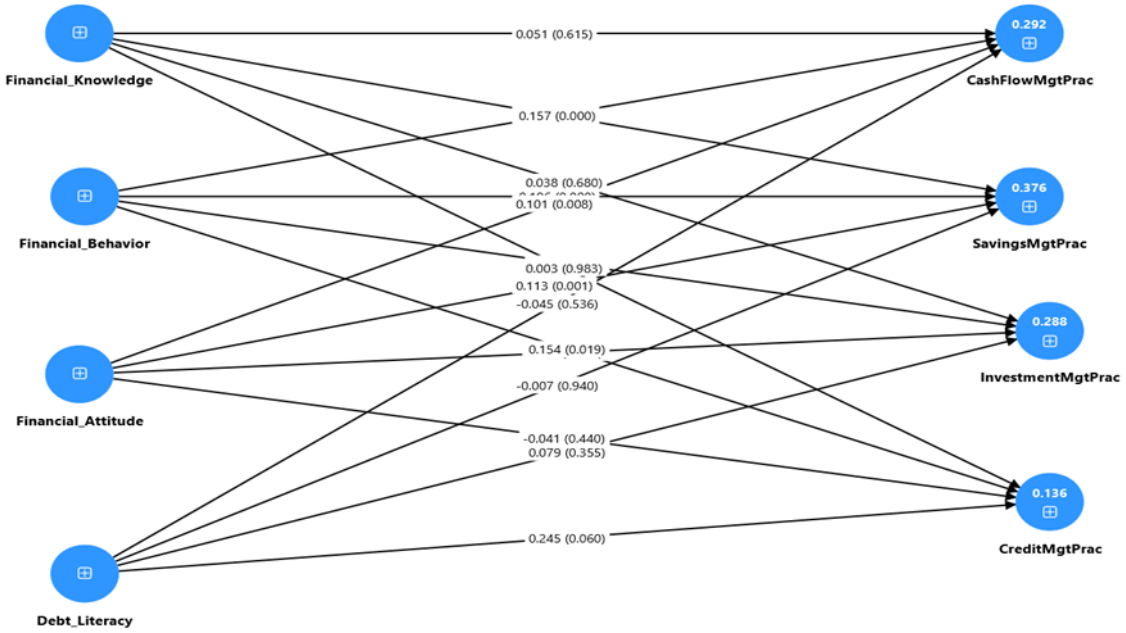

FIGURE 3. SEM Model of Household Financial Management, Knowledge, Attitudes, Behaviors, and Debt Literacy

This study further explored the relationships between financial knowledge, financial behavior, financial attitude and debt literacy towards household financial management practices as shown in Figure 3.

TABLE 11. Path coefficients and Significance

Path	β (O)	t-value	p-value	Sig.
DL → CF	-0.045	0.619	0.536	n.s.
DL → CR	0.245	1.884	0.060	†
DL → IM	0.079	0.925	0.355	n.s.
DL → SM	-0.007	0.075	0.940	n.s.
FA → CF	0.101	2.647	0.008	**
FA → CR	-0.041	0.773	0.440	n.s.
FA → IM	0.069	2.129	0.033	*
FA → SM	0.113	3.375	0.001	**
FB → CF	0.157	4.345	0.000	***
FB → CR	0.154	2.341	0.019	*
FB → IM	0.189	5.850	0.000	***
FB → SM	0.196	6.382	0.000	***
FK → CF	0.051	0.503	0.615	n.s.
FK → CR	0.003	0.021	0.983	n.s.
FK → IM	0.038	0.413	0.680	n.s.
FK → SM	0.113	1.238	0.216	n.s.

Note. DL = Debt Literacy; FA = Financial Attitude; FB = Financial Behavior; FK = Financial Knowledge.
CF = Cash Flow Management; CR = Credit Responsibility; IM = Investment Management; SM = Saving Management.
Significance codes: † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$; n.s. = not significant.

This study shows no significant effect on cash flow, investment, or savings management, but demonstrates a marginal positive association with credit management ($\beta = 0.245$, $p < .10$). This suggests that while debt literacy does not directly improve everyday financial behaviors, it can modestly enhance responsible credit management. This finding is consistent with prior research indicating that debt literacy mainly influences credit-related decisions rather than broader financial practices.

As summed in Table 12, results of this study also found that financial attitude exerts a positive influence on cash flow ($\beta = 0.101$, $p < .01$), investment management ($\beta = 0.069$, $p < .05$), and saving management ($\beta = 0.113$, $p < .01$). However, its effect on credit responsibility is not significant. This indicates that favorable financial attitudes foster proactive behaviors in managing liquidity, investments, and savings, but do not necessarily translate into improved credit management. This finding is similar with the study of Shim et al (2012) in highlighting the psychological benefits of saving and the importance of future-oriented financial attitude. In a similar manner, their study indicates that individuals who are farsighted in their financial planning are more likely to engage in effective savings management (Shim et al, 2012). The present findings also resonate with the study of Mishra (2018) emphasizing that individuals who have strong achievement orientation are more likely to adapt proactive financial practices, including saving. Their findings are in consonance with this study results suggesting that individuals who are better at setting and achieving financial goals, apparently possess effective savings management. The mechanism underpinning this link could be that future-oriented attitudes create psychological commitment to long-term goals. Individuals with strong achievement orientation or optimism toward financial planning are more motivated to defer gratification, which in turn drives systematic saving and investment. Attitudes therefore function as motivational levers that convert intentions into financial action.

TABLE 12. Summary of Structural Model Results

Predictor	Cash Flow (CF)	Credit (CR)	Invest. Mgmt. (IM)	Saving Mgmt. (SM)
Debt Literacy (DL)	–0.045 (n.s.)	0.245 (†)	0.079 (n.s.)	–0.007 (n.s.)
Financial Attitude (FA)	0.101**	–0.041 (n.s.)	0.069*	0.113**
Financial Behavior (FB)	0.157***	0.154*	0.189***	0.196***
Financial Knowledge (FK)	0.051 (n.s.)	0.003 (n.s.)	0.038 (n.s.)	0.113 (n.s.)

Note. Values are standardized path coefficients (β). † $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

Thirdly, financial behavior emerges as the strongest and most consistent predictor, significantly affecting all four dimensions: cash flow, credit responsibility, investment management, and saving management ($\beta = 0.154$–0.196, $p < .05$ to $p < .001$). This underscores the centrality of behavioral practices in driving effective financial management, aligning with behavioral finance theory that emphasizes the primacy of actions over knowledge or attitudes. This result aligned with that of Jali et al (2023) and Nadhiroh (2023) indicating that teachers who exhibit better financial behavior are more likely to engage in effective financial management practices, such as budgeting. The mechanism here lies in behavioral routines: individuals who practice budgeting and expenditure monitoring develop a structured framework that reduces uncertainty, prevents overspending, and facilitates allocation toward investment. Thus, good financial behavior acts as a discipline-enforcing mechanism that strengthens household financial practices.

Lastly, financial knowledge shows no significant effect on any financial management dimension. This suggests that knowledge alone may be insufficient to influence behavior unless complemented by favorable attitudes and habits. This finding resonates with the "knowledge–action gap" documented in the financial literacy literature. The results collectively imply that "what people do" (behavior) and "how they think" (attitudes) are stronger drivers of financial management outcomes than "what they know" (knowledge). In addition, it is noteworthy also that debt literacy only has limited influence. These findings suggest that financial education initiatives should integrate behavioral training and attitudinal shifts rather than focusing solely on cognitive knowledge.

CONCLUSIONS

In conclusion, this paper contributes to the growing body of literature on financial literacy by highlighting the complex relationships between household dynamics and financial literacy components among HEI educators. Though survey results indicate that while HEI educators have a solid understanding of financial concepts, with an average score of 5.6 out of 7, there are still gaps in areas like compound interest and inflation. Demographic factors such as marital status, business education, and non-household head status were linked to higher financial knowledge, but no significant differences were found across gender, marital status, educational background, or breadwinner status. Muslim respondents also scored lower in financial knowledge, suggesting socio-cultural influences. Financial behaviors were generally positive, especially in budgeting, but respondents showed limited engagement with financial products and investment options. The study revealed widespread debt illiteracy, with only 9% answering debt-related questions correctly. Muslim respondents had slightly lower debt literacy scores, likely due to religious influences against interest-bearing debt. Educational background, particularly business education, was associated with better financial management. Married respondents and those in regular positions also exhibited stronger credit management practices. The findings advocate for the intervention efforts to provide comprehensive financial education programs tailored to address the specific needs of diverse demographic groups, particularly women, Muslim educators and larger households to address gaps in financial and debt literacy.

Results of this study shows evidence on the relationships between household financial management practices and financial literacy components and debt literacy. Financial Knowledge shows no significant effects on any financial management outcomes. This result challenges the assumption that knowledge alone guarantees better financial outcomes. Similar findings were reported by Kaiser et al (2020) and Riitsalu et al (2024) who argue that knowledge is often "dormant" unless coupled with motivation and behavioral application. This reinforces the knowledge–action gap, where individuals may know the right choices but fail to act accordingly. On the other hand, financial attitude significantly predicts cash flow ($\beta = 0.101$, $p < .01$), investment management ($\beta = 0.069$, $p < .05$), and saving management ($\beta = 0.113$, $p < .01$). This supports the argument that positive financial attitudes foster proactive and disciplined financial management. For example, Potrich et al. (2016) and Al-Tamimi & Kalli (2009) found that financial attitudes play a crucial mediating role between financial knowledge and behavior, influencing how individuals allocate resources and plan long-term savings. Moreover, financial behavior emerges as the strongest and most consistent predictor, influencing all four domains—cash flow, credit responsibility,

investment management, and saving management (β = 0.154–0.196, $p < .05$ to $p < .001$). This aligns with behavioral finance theory, which emphasizes that actions outweigh knowledge in shaping financial outcomes. Prominent works, such as Nanda & Banerjee (2021) confirm that financial behaviors such as budgeting, tracking expenses, and saving discipline are the most robust predictors of financial well-being. Debt Literacy shows no significant effect on cash flow, investment, or savings management, but has a marginal positive association with credit responsibility (β = 0.245, $p < .10$). This suggests debt literacy is more relevant to credit-related decisions than to broader financial practices. Empirical studies (e.g., Amagir et al., 2020; Babiarz & Robb, 2014) support this view, noting that debt-specific knowledge tends to improve loan repayment behavior and borrowing practices, while having little impact on savings or investment.

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