INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY: APPLIED BUSINESS AND EDUCATION RESEARCH
2025, Vol. 6, No. 7, 3515 – 3532
http://dx.doi.org/10.11594/ijmaber.06.07.23

Research Article

Assessing Financial Literacy among Members of Agricultural Cooperatives in Cateel, Davao Oriental: A Quantitative Approach

Dem Francis S. Antenorio*, Cecille D. Lintogonan, Mary Lovely Suzzeth P. Mendez

Davao Oriental State University – Cateel Extension Campus, Cateel, Davao Oriental 8205, Philippines

Article history:
Submission 15 April 2025
Revised 14 July 2025
Accepted 23 July 2025

**Corresponding author:*
E-mail:
demfrancisantenorio25@gmail.com

ABSTRACT

This study explored the level of financial literacy among 68 cooperative members in Cateel, Davao Oriental. It aimed to examine the respondents' profiles in terms of age, gender, educational background, and income level, and to assess financial literacy across four dimensions: financial knowledge, behavior, awareness, and attitudes. Using weighted mean and ANOVA for data analysis, the study identified significant differences in financial literacy based on demographic factors. Results showed that most respondents were young and had varied educational backgrounds. Financial behavior significantly differed by age ($p < 0.05$), while educational attainment had a significant impact on financial knowledge, behavior, and attitude ($p < 0.05$), and a near-significant effect on overall financial literacy. Gender differences were significant in financial behavior, attitude, and overall financial literacy. However, no significant differences were found based on income level or prior financial literacy training. These findings underscore the importance of designing targeted financial education interventions that address age-, gender-, and education-related disparities to improve financial literacy among cooperative members.

Keywords: *Financial literacy, Cooperative, Financial knowledge, Financial behavior, Financial awareness, Financial attitudes*

Background

In developing countries like Kenya, financial literacy remains a critical need. The Department for International Development (DFID) revealed 2008 that only 50 percent of the adult population knew to use basic financial products and services, indicating that the remaining 50 percent were financially illiterate (Mugo, 2016). Additionally, Cahyaningrum (2017) discusses the challenges cooperatives face in conducting banking business activities, which suggests that regulatory or legal barriers

How to cite:
Antenorio, D. F. S., Lintogonan, C. D., & Mendez, M. L. S. P. (2025). Assessing Financial Literacy among Members of Agricultural Cooperatives in Cateel, Davao Oriental: A Quantitative Approach. *International Journal of Multidisciplinary: Applied Business and Education Research*. *6*(7), 3515 – 3532. doi: 10.11594/ijmaber.06.07.23

may hinder their ability to provide financial services and education. Financial literacy encompasses the knowledge, skills, and behaviors needed to make informed financial decisions and achieve financial well-being (Lusardi & Mitchell, 2013). Consequently, entrepreneurial financial literacy is crucial for entrepreneurs to effectively manage financial resources throughout their business ventures and navigate the financial landscape (Wise, 2013).In this regard, financial literacy plays a crucial role in driving a strategic transformation, encompassing two aspects: first, a shift from the supply side by fostering the integration of sustainable financial practices, and second, a transition from the demand side by encouraging consumers to adopt more sustainable behaviors, as emphasized by Krechovská (2015). In the literature, several studies have investigated the determinants of financial behavior. Along with demographic control factors, such as age, gender, and marital status, the findings of several studies show that financial literacy and financial self-control have a significant role in explaining an individual's financial performance and behavior. People with a sound financial understanding are more likely to adopt wise financial practices that enhance their quality of life (Sabri, 2014). Financial responsibility, such as the amount and quality of savings, informed expenditure decisions, and informed investment decisions, are positively correlated with education and financial knowledge, Gray et al., (2021). Moreover, having high self-control regarding money and spending could help individuals make financial decisions, Rey-ares et al., (2021). Cooperatives played a vital role in fostering economic growth and development, particularly in empowering individuals and communities by providing them with a platform for collective economic activities. Furthermore, there needed to be more local research examining the level of financial literacy of cooperative members, specifically the Cateel Farmer's and Fisherfolk Producers Cooperative, Bitangon Lumad Naturalist Service Cooperative, Taytayan Irrigators Marketing Co. Hence, the objective of this study was to address this research gap by conducting a quantitative analysis of financial literacy among cooperative members in Cateel, Philippines. The study collected and analyzed data from cooperative members to assess their financial knowledge, attitudes, awareness, and behaviors.

Statement of the Problem

The study aimed to determine the level of financial literacy among members of cooperatives in Cateel to provide focus and direction for the research. Specifically, it sought to answer the following:

1. What is the profile of the respondents in terms of:
   1.1 Age;
   1.2 Educational Attainment;
   1.3 Gender;
   1.4 Income Level; and
   1.5 Financial Literacy Training?
2. What is the level of financial literacy among Cooperative members in terms of:
   2.1 Financial knowledge;
   2.2 Financial Behavior;
   2.3 Financial Awareness;
   2.4 Financial Attitudes?
3. Is there any significant difference in the level of financial literacy of cooperatives in Cateel when respondents are grouped according to profile?

Methods

Research Design

The research employed a quantitative research design. In keeping with the objective of descriptive research, the study sought to derive solutions from the research problem at hand. This quantitative study focused on gathering numerical data and generalizing it across groups of cooperative members. It also carried out quantitative information on important variables such as financial literacy, financial knowledge, financial behavior, financial awareness, and financial attitude.

Research Instruments

The research instrument used in gathering the data was adapted from the study by Mugo (2016) titled "Effect of Financial Literacy on Investment Decisions among Savings and Credit Co-Operative Societies Members." The questionnaire was structured into five sections. The initial section of the questionnaire pertained to the demographic characteristics of the participants, encompassing seven questions. The next section of the questionnaire pertained to the cooperative member's financial knowledge and comprised seven questions. The third section of the questionnaire pertained to the financial behavior and comprised nine questions while th fourth section consisted of two questions about financial awareness, and the last section, which concerned financial attitudes, comprised eight questions.

Research Respondents

The researchers used a random sampling technique to ensure the study employed a fair selection of respondents who met the specified criteria. This approach involved selecting 68 cooperative members from Cateel Farmer's and Fisherfolk Producers Cooperative, Bitangon Lumad Naturalist Service Cooperative, and Taytayan Irrigators Marketing Cooperative. These members were involved in the financial operations and decision-making processes of the cooperatives in Cateel.

Research Locale. The study was conducted in the municipality of Cateel to examine the correlation between financial literacy and cooperative membership. It focused on the dynamics of financial literacy within this specific geographic area.

Data Gathering Procedure

The following steps were followed by the researchers in gathering the data:

Secure ethical clearance. Researchers obtained ethical clearance from REO for the data-gathering procedure. This entailed ensuring informed consent, maintaining anonymity, preserving confidentiality, and securing data against breaches.

Seeking permission to conduct the study. Prior to commencing data collection, the researchers contacted the pertinent authorities of cooperatives in Cateel Farmer’s and Fisherfolk Producers Cooperative, Bitangon Lumad Naturalist Service Cooperative, and Taytayan Irrigators Marketing Cooperative to obtain permission to carry out the study within their cooperative environments.

Administration and distribution of the questionnaire. After obtaining the necessary approvals, the researchers secured the requisite authorizations and consents to investigate within the Cateel vicinity. The study was conducted in May 2024. Respondents needed to sign the informed consent form during this process to ensure their voluntary and informed participation in the research.

Retrieval of the questionnaires. Afterward, the questionnaires were retrieved, and the data gathered was collected.

Data Encoding. After the questionnaires were collected, the data was tallied using Microsoft Excel to ensure that the information was accurately recorded and could be quickly processed, analyzed, and stored.

Data Analysis

Respondents' responses to every item of the corresponding questionnaires were tallied and recorded accordingly. This involves assigning numeric values to responses to facilitate statistical calculations and comparisons. The collected data includes background information, financial behavior, financial awareness, financial attitudes, and financial knowledge.

Mean. This statistical tool was used to determine the level of the four factors of financial literacy of Cateel's cooperative members. This answered the statement of problem number.

Mode/Percentage. This measure was used to determine the profile of cooperative members. This tool answered the statement of problem number 1.

ANOVA. This was used to determine whether there was a significant difference in the level of financial performance when analyzed according to age, gender, and educational background and to answer problem number 3. The following scale was used to interpret the independent variable: factors affecting the respondents' financial literacy.

Table 1. Interpretation of financial literacy level

Interval	Response	Description
1.00 – 1.80	Very High	This indicates a very strong level of financial literacy
1.81 – 2.60	High	This indicates a strong level of financial literacy
2.61 – 3.40	Moderate	This indicates an average level of financial literacy
3.41 – 4.20	Low	This indicates a weak level of financial literacy
4.21 – 5.00	Very Low	This indicates a very weak level of financial literacy

Table 2. Profile of respondents

Factor	Category	Frequency	Percent
Age	30 years old and below	11	16.18
	31 to 40 years old	17	25.00
	41 to 50 years old	32	47.06
	51 to 60 years old	7	10.29
	61 years old and above	1	1.47
Monthly Income	Php 20,000 and below	66	97.06
	Php 20,001 to Php 50,000	2	2.94
Sex	Male	37	54.41
	Female	31	45.59
Educational Attainment	Elementary	41	60.30
	High School	17	25.00
	Bachelor's Degree	9	13.20
	Post Graduate	1	1.50
Financial Literacy Training	Never	15	22.06
	Sometimes	47	69.12
	Often	6	8.82
	Always	0	0.00
Total		**68**	**100.00**

Result and Discussion

In Cateel, most cooperative members fall within the 41 to 50 age range (47.06%), suggesting a demographic that could benefit from targeted financial literacy programs. The literature suggests that targeted financial literacy programs focusing on the 41 to 50 age range could bring significant benefits, as this demographic typically demonstrates a solid understanding of cooperative literacy, especially regarding financing mechanisms and sharia deposit principles (Pratiwi, 2020). Members within this age group often occupy pivotal roles within cooperatives, managing and making critical financial decisions that impact the entire organization

The study shows that most respondents earn less than Php 20,000 monthly (97.06%), which correlates with lower financial literacy levels. Studies have consistently shown a correlation between lower income and lower financial literacy levels in the Philippines. Scheresberg (2013) found that young adults, particularly those from lower-income backgrounds, often need more basic financial knowledge.

The study shows a nearly equal distribution of male (54.41%) and female (45.59%) respondents. Research on gender differences in cooperation has found that men and women tend to cooperate similarly, with little evidence of within-study differences (Spadaro, 2022).

In Cateel, 60.30% of cooperative members have only completed elementary school, while 25.00% have a high school education. Gimenes (2016) and Danjuma (2020) both found that older members with higher education levels are more resistant to change and less participative, while Catur (2018) and Carbonel (2019) highlighted the need for cooperative knowledge and the role of cooperatives in community development.

According to the study results, 22.06% of members never engage in financial literacy training, while 69.12% engage sometimes, 8.82% often, and 0% consistently. Grashuis (2019) highlights the positive impact of cooperative membership on various indicators of member performance but also notes challenges such as uneven benefit distribution and increased heterogeneity in member attitudes.

Table 3. Level of financial literacy in terms of financial knowledge

No.	Description	Mean	Std. Deviation	Interpretation
1	Confident in understanding basic financial concepts, such as interest rates, inflation, and investment returns.	2.24	0.85	High
2	Feeling well-equipped to make informed financial decisions for cooperative.	1.81	0.93	High
3	Believe that diversifying a cooperative's investments can help manage risk.	1.90	0.95	High
4	Familiar with the relationship between bond prices and interest rates.	2.32	0.85	High
5	Regularly review and update the cooperative's financial goals and strategies.	1.69	0.78	Very High
6	Likely to seek financial advice or guidance when making significant financial decisions for a cooperative.	1.81	0.72	High
7	Think it is important for cooperative members to have a solid understanding of financial literacy.	1.59	0.78	Very High
	Average	**1.91**	**0.41**	**High**

Table 3 provides the statistical results on the financial literacy levels of the respondents, explicitly highlighting their financial knowledge. An overall average mean score of 1.91, with a standard deviation of 0.41, indicates a high level of financial literacy among the participants. Regularly reviewing and updating the cooperative's financial goals and strategies, rated very high with a mean importance score of 1.69 and a standard deviation of 0.78, along with the belief that cooperative members need to have a solid understanding of financial literacy, rated with a mean score of 1.59 (SD=0.78), underscores the critical role of financial literacy in cooperative success. A strong understanding of financial literacy is crucial as it directly impacts the financial performance of cooperatives (Ermawati, 2019). This knowledge is vital for members involved in borrowing, enabling them to make informed and prudent decisions (Perez, 2020). Despite recognized benefits, there remains much to explore in financial literacy, including its diverse dimensions and the impact of financial education (Deepak, 2015). Nonetheless, a profound understanding of financial literacy is essential for cooperative members, leading to better financial decisions and improved economic security (Deepak, 2015).

On the other hand, confidence in understanding basic financial concepts, such as interest rates, inflation, and investment returns, and feeling well-equipped to make informed financial decisions for cooperatives rank high among the financial knowledge attributes. Believing that diversifying a cooperative's investments can help manage risk, being familiar with the relationship between bond prices and interest rates, and likely seeking financial advice or guidance when making significant financial decisions for a cooperative have the lowest mean in terms of actual financial knowledge.

Research has consistently shown that financial knowledge is key to making informed financial decisions (Gentile, 2016). However, this knowledge is often lacking, particularly among the young (Lusardi, 2019). This is concerning, given the increasing complexity of financial products and the need for individuals to take charge of their financial security (Rooij, 2017). Seeking financial advice is a common response to this lack of knowledge and is positively related to financial knowledge (Gentile, 2016). Therefore, while confidence in understanding basic financial concepts is important, it is crucial to recognize the necessity for ongoing education and professional guidance in making sound financial decisions. This underscores the significance of self-awareness in financial literacy and the proactive seeking of expert advice to navigate the complexities of financial management effectively.

Table 4. Level of financial literacy in terms of financial behavior

No.	Description	Mean	Std. Deviation	Interpretation
1	Have a personal budget.	2.04	0.80	High
2	Household income each month is regular and reliable.	1.82	0.79	High
3	Currently owe money to a friend or a family member as a loan.	2.19	0.95	High
4	Currently owe money on credit card. Investment period gives highest interest return.	1.91	1.19	High
5	Maintaining adequate financial records	2.07	0.80	High
6	Spending less than income regularly	1.65	0.77	Very High
7	Avoid borrowing to balance personal budget	1.81	0.85	High
8	Striving to save even in difficult circumstances	1.79	0.78	Very High
9	Confidence in financial decision-making	1.63	0.81	Very High
	Average	**1.88**	**0.41**	**High**

Table 4 demonstrates that respondents exhibit a very high financial literacy through their behaviors, such as spending less than income regularly, striving to save even under challenging circumstances, and having confidence in financial decision-making. They receive very high scores, indicating particularly strong positive financial behaviors. Greenberg (2018) emphasizes the importance of financial well-being, which is influenced by saving habits, debt management, and situational factors. Asaad (2015) highlights the role of financial confidence in shaping financial behavior, noting that overconfident individuals are more likely to engage in risky financial behaviors. Additionally, Nye (2013) underscores the significance of financial literacy by linking it to forward-looking financial decisions, advocating that a thorough understanding of financial principles can lead to better preparation for future financial needs. Ramalho (2019) reinforces this perspective by emphasizing the necessity of a holistic approach to financial education that integrates technical knowledge and behavioral aspects to address the full spectrum of financial decision-making.

Meanwhile, having a personal budget, regular and reliable household income each month, currently owing money to a friend or family member as a loan, currently owing money on a credit card, understanding that a more extended investment period gives the highest interest return, maintaining adequate financial records, and avoiding borrowing to balance a personal budget received high scores. This collection of financial behaviors illustrates a proactive approach to managing one's finances. A range of financial behaviors, including cash flow management, saving, and investing, are influenced by financial knowledge and learning experiences (Hogarth, 2013). This correlation suggests that increasing financial knowledge and practical experiences can significantly improve financial behaviors. Social learning opportunities, such as practicing budgeting and saving, have been shown to contribute positively to financial behaviors, resulting in higher scores in these areas (Gutter, 2020). Moreover, financial literacy is negatively associated with high-cost borrowing behaviors (Chatterjee, 2013), indicating that better financial understanding can reduce the likelihood of engaging in costly borrowing practices.

Table 5. Level of financial literacy in terms of financial awareness

No.	Description	Mean	Std. Deviation	Interpretation
1	The need for financial education	2.07	0.82	High
2	Financial Education introduced in school curriculum	1.53	0.70	Very High
	Average	**1.80**	**0.62**	**High**

Table 5 demonstrate that respondents have very high scores for introducing financial education in schools, highlighting a strong consensus on the importance of early financial literacy education. The importance of financial literacy education within cooperatives is highlighted by Ermawati (2019), who demonstrated that good financial literacy, combined with compelling financial management, significantly enhances financial performance. This insight is particularly pertinent for financial cooperatives, which are crucial components of many nations' financial systems (Mckillop, 2020). However, as Sharifi (2013) pointed out, cooperatives' unique characteristics, such as their member-owned structure and democratic decision-making processes, require a tailored approach to financial analysis. Furthermore, the role of financial awareness in promoting financial inclusion—especially within self-help groups—cannot be overlooked (Roy, 2017). Early financial literacy education is necessary to foster improved financial performance and broader financial inclusion, particularly within cooperative contexts. Ensuring that cooperative members and managers receive targeted financial education can help them navigate their specific financial landscapes more effectively, ultimately contributing to the stability and growth of the cooperative sector.

The data from Table 5 shows that respondents have a high level of financial awareness, particularly recognizing the need for financial education and its integration into school curriculums. Financial awareness in cooperatives underscores the significant role of financial literacy and education. Németh (2022) found that teachers, who are pivotal in developing students' financial awareness, generally possess high levels of financial literacy and recognize the necessity of incorporating financial education into school curricula. Despite this recognition, Kannangara (2023) identified a concerning gap in the secondary school curriculum in Sri Lanka, where financial concepts are not given sufficient emphasis, even though they are critically important.

Meanwhile, Perez (2020) highlighted how cooperative education can positively influence children's attitudes toward financial literacy, underscoring cooperatives' potential to foster financial awareness from a young age. Perez (2020) explored the financial literacy and borrowing practices among members of a school-based multi-purpose cooperative,

revealing the pressing need for specialized financial education programs within cooperative frameworks. Overall, it illustrates the multifaceted importance of financial literacy education and the pivotal role that cooperatives and schools can play in promoting financial awareness and better financial practices.

Table 6. Level of financial literacy in terms of financial attitudes

No.	Description	Mean	Std. Deviation	Interpretation
1	Feel in control of the financial situation	2.06	0.67	High

No.	Description	Mean	Std. Deviation	Interpretation
2	Feel capable of using future income to achieve financial goals	1.68	0.78	Very High
3	Uncertain about where money is spent	2.04	0.95	High
4	Purchasing things is very important to happiness	2.00	0.93	High
5	Afraid of credit and credit cards	2.00	1.02	High
6	Feel the cost of using a credit card is too high	1.84	0.92	High
7	Feel putting away money each month for savings or investments is important	1.75	0.85	Very High
8	Feel it is essential to understand apartment leases and loan agreements before sign	1.47	0.70	Very High
	Average	**1.85**	**0.47**	**High**

Table 6 demonstrate that respondents exhibit high financial literacy regarding financial attitudes. They generally feel capable of using future income to achieve financial goals, putting away money each month for savings or investments is important, and understanding apartment leases and loan agreements before signing is important. According to Miller (2014), financial literacy can positively influence financial attitudes and behaviors, and financial literacy interventions can effectively improve financial practices and attitudes.

While some uncertainties and concerns about feeling in control of the financial situation, uncertain about where money is spent, purchasing things is very important to happiness, being afraid of credit and credit cards, and feeling the cost of using a credit card is too high, shows a high level of financial literacy and thus, reflect a sound approach to personal finance management among the respondents. Financial attitudes within cooperatives underscore their substantial influence on consumer behavior and debt levels, as Xavier (2020) demonstrated. This relationship is particularly significant for small borrowers, where financial literacy and attitudes are closely intertwined with their financial conduct (Chaulagain, 2017). The broader impact of financial attitudes and literacy on financial management behavior has also been observed among working-age individuals, highlighting the pervasive nature of these factors across various demographic groups (Baptista, 2021).

For instance, individuals with strong financial attitudes are typically associated with more prudent financial behaviors, such as reduced reliance on credit card borrowing (Ibrahim, 2013). These emphasize financial attitudes and literacy's critical role in shaping financial behaviors within and beyond cooperative settings. Thus, enhancing financial literacy and cultivating positive financial attitudes could lead to more responsible financial behaviors, lower debt levels, and improved financial management among cooperative members and the general population.

Table 7. Level of financial literacy

	Factors	Mean	Std. Deviation	Interpretation
A	Financial Knowledge	1.91	0.41	High
B	Financial Behavior	1.88	0.41	High
C	Financial Awareness	1.80	0.62	Very High
D	Financial Attitude	1.85	0.47	High
	Overall Financial Literacy	**1.86**	**0.32**	**High**

Table 7 presents the statistical findings on the level of financial literacy among the chosen respondents. The data illustrate that respondents possess a strong overall level of financial literacy, as indicated by the overall mean score of 1.86, which falls within the 'High' interpretation range. Breaking down the findings, we see that respondents exhibit high levels of financial knowledge (mean: 1.91), financial behavior (mean: 1.88), and financial attitude (mean: 1.85), pointing to their solid understanding, effective money management practices, and positive outlook towards handling finances. Notably, financial awareness stands out with a mean score of 1.80, categorizing it in the 'Very High' range and reflecting a particularly strong awareness of their financial situations and the significance of staying informed about financial matters.

Financial literacy is pivotal in informed financial decision-making and overall financial well-being. Recent studies underscore the complexity of improving financial literacy and its impact on financial knowledge, behavior, awareness, and attitude.

Financial literacy within cooperatives is a complex and multifaceted concept, with financial awareness identified as its most critical component (Bhushan, 2014). This finding is corroborated by studies indicating that financial attitude and behavior have a stronger association with financial literacy than mere financial knowledge alone (Rai, 2019; Rahmayanti, 2019). However, this does not diminish the role of financial knowledge, which remains a fundamental element. Financial knowledge significantly influences financial attitudes and behaviors, fostering a foundation for sound financial practices. This interplay is further reinforced by Yong (2018), who found that financial education positively impacts financial knowledge, shaping attitudes and behaviors.

Therefore, for cooperatives aiming to enhance the financial well-being of their members, a holistic approach to financial literacy is essential. While prioritizing financial awareness as the cornerstone, it is equally important to implement comprehensive financial education programs. These programs aim to improve financial knowledge, which is the bedrock for cultivating positive financial attitudes and responsible financial behaviors. By addressing all these facets—awareness, knowledge, attitude, and behavior—cooperatives can foster a financially savvy membership capable of making informed decisions, ultimately leading to better financial outcomes and the overall success of the cooperative.

Table 8. ANOVA results on financial literacy among different age groups

Factors		**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**	**Interpretation***
Financial Knowledge	Between Groups	0.174	4.000	0.044	0.249	0.910	Do not differ significantly.
	Within Groups	11.041	63.000	0.175			
	Total	11.215	67.000				
Financial Behavior	Between Groups	2.227	4.000	0.557	3.923	0.007	Differs significantly
	Within Groups	8.941	63.000	0.142			
	Total	11.168	67.000				
Financial Awareness	Between Groups	1.474	4.000	0.368	0.963	0.434	Do not differ significantly.
	Within Groups	24.096	63.000	0.382			
	Total	25.570	67.000				
Financial Attitude	Between Groups	1.578	4.000	0.395	1.863	0.128	Do not differ significantly.
	Within Groups	13.347	63.000	0.212			
	Total	14.925	67.000				
Overall Financial Literacy	Between Groups	0.580	4.000	0.145	1.470	0.222	Do not differ significantly.
	Within Groups	6.208	63.000	0.099			
	Total	**6.788**	**67.000**				

Table 8 presents the ANOVA results examining financial literacy across different age groups. The analysis reveals that some financial literacy factors display significant differences while others do not. Financial Knowledge shows no significant variation with a p-value of 0.910, suggesting that knowledge does not differ significantly across age groups. Financial Behavior, however, displays a significant difference (p = 0.007), indicating substantial behavioral discrepancies among the different age cohorts. Financial Awareness also does not present significant differences (p = 0.434), suggesting similar levels of awareness across ages. Financial Attitude exhibits no significant difference (p = 0.128), indicating that attitudes towards financial matters do not vary significantly among different age groups.

Lastly, the overall financial literacy score does not significantly vary across ages (p = 0.222), highlighting that general disparities in financial literacy are not substantial. Thus, the analysis confirms that age significantly influences financial behavior but not other aspects of financial literacy.

Yau (2022) discovered that although financial literacy was linked to financial behavior, there were no significant differences across various age groups. This finding implies that financial literacy can play a role in shaping financial behaviors regardless of age.

On the other hand, Greene (2014) highlighted that financial knowledge and management abilities positively correlate with financial behaviors; however, the strength of these influences fluctuates among different age cohorts. This suggests that the same financial knowledge might impact a young adult differently than an older individual.

Peach (2017) further complicated the narrative by indicating that higher financial knowledge does not always translate into prudent financial behavior, emphasizing group differences' role in shaping financial practices and attitudes. These disparities could be attributed to varying life experiences, financial responsibilities, and socio-economic backgrounds in different age groups.

In contrast, Xiao (2015) observed that older consumers generally exhibited higher levels of financial capability, including financial literacy and desirable financial behaviors. This finding underscores that with age and experience, individuals develop better financial management skills and literacy, leading to more responsible financial behaviors. These suggest that financial literacy may not significantly differ across age groups, but its influence on financial behaviors varies. Financial literacy's impact on behaviors is modulated by the individual's stage in life, experiences, and possibly their socio-economic environment. This nuanced understanding indicates that financial education programs must be tailored to different age cohorts to foster beneficial financial behaviors across the lifespan.

Table 9. Mean comparison of financial literacy among different educational attainments of respondents

Factors		Sum of Squares	df	Mean Square	F	Sig.	Interpretation*
Financial Knowledge	Between Groups	1.610	3.000	0.537	3.575	0.019	Differs significantly
	Within Groups	9.605	64.000	0.150			
	Total	11.215	67.000				
Financial Behavior	Between Groups	2.776	3.000	0.925	7.057	0.000	Differs significantly
	Within Groups	8.392	64.000	0.131			
	Total	11.168	67.000				
Financial Awareness	Between Groups	0.968	3.000	0.323	0.839	0.477	Do not differ significantly.
	Within Groups	24.602	64.000	0.384			
	Total	25.570	67.000				
Financial Attitude	Between Groups	2.920	3.000	0.973	5.188	0.003	Differs significantly
	Within Groups	12.006	64.000	0.188			
	Total	**14.925**	**67.000**				
Overall Financial Literacy	Between Groups	0.760	3.000	0.253	2.689	0.054	Differs significantly
	Within Groups	6.028	64.000	0.094			
	Total	**6.788**	**67.000**				

Table 9 presents the mean comparison of financial literacy across different educational attainments of respondents, indicating significant differences in several financial literacy factors. The analysis reveals that financial knowledge differs significantly among educational groups, suggesting that respondents with higher educational attainment, particularly those with a bachelor's degree, have better financial knowledge than those with only elementary or high school education. Financial behavior also shows a significant difference, indicating notable behavioral differences among educational groups, with bachelor's degree holders exhibiting more positive financial behaviors. Financial awareness, however, does not differ significantly across educational groups, suggesting similar levels of financial awareness regardless of educational attainment. Financial attitude displays a significant, indicating varying financial attitudes among respondents, particularly between those with lower educational levels and those with higher education. Lastly, the overall financial literacy score shows a significant difference across educational attainments, underscoring that the general level of financial literacy varies slightly with educational level. Thus, while specific financial literacy components differ by educational attainment, overall financial literacy indicates a near-significant variance.

Lusardi and Mitchell (2014) have demonstrated that individuals with higher levels of education tend to possess greater financial knowledge. Their study found significant correlations between educational attainment and financial literacy, indicating that those with college degrees generally exhibit better financial understanding than those with only high school or elementary education. Similarly, Van Rooij, Lusardi, and Alessie (2014) examined the role of education in financial decision-making and found that higher educational attainment significantly improves financial behavior and awareness.

Bhushan (2014) and Scheresberg (2013) found a positive correlation between higher education levels and improved financial knowledge and behaviors, implying that individuals with more extensive educational backgrounds tend to have better financial understanding and practices. This might be due to the broader exposure to complex problem-solving and critical thinking skills that higher education provides, which are translatable to financial decision-making.

However, Nano (2013) and Luksander (2014) present a more nuanced view, indicating that the mere level of education might not be the sole determinant of financial literacy. Instead, the type and content of financial education and the methods used to deliver this education can significantly enhance financial literacy. This suggests that targeted financial education programs, focusing specifically on practical financial knowledge and skills, can be highly effective regardless of the participants' overall educational attainment.

Table 10. Mean comparison on financial literacy between genders of respondents

	Factors	t-value	p-value	Interpretation
A	Financial Knowledge	0.843	0.402	Do not differ significantly
B	Financial Behavior	1.800	0.076	Differs significantly
C	Financial Awareness	0.527	0.600	Do not differ significantly
D	Financial Attitude	2.115	0.038	Differs significantly
	Overall Financial Literacy	**1.897**	**0.062**	**Differs significantly**

Table 10 presents the mean comparison of financial literacy between the respondents' genders. The analysis indicates significant differences in some aspects of financial literacy when comparing male and female respondents. Specifically, the results show no significant differences in Financial Knowledge and Financial Awareness, indicating similar levels of knowledge and awareness across genders. However, Financial Behavior reveals a marginally significant difference, suggesting some behavioral differences may exist between genders. On the other hand, Financial Attitude presents a significant difference, indicating varying attitudes towards financial matters between male and female respondents. Finally, the Overall Financial Literacy score shows a near-significant difference between genders, suggesting a potential variation in overall financial literacy depending on gender.

Azeez (2020) discovered that male respondents in rural India generally possessed higher financial knowledge than their female counterparts, highlighting a potential gender gap in financial literacy within this demographic. In contrast, Safitri (2021) reported no significant difference in financial literacy levels between male and female farmers. This suggests that gender disparities in financial knowledge may not be universally present across all rural settings or occupations. Murmu (2024) acknowledged the existence of gender differences in financial literacy but did not provide specific directionality, leaving the nature of these differences open to interpretation. Adding a different dimension to the discussion, Yuliani (2020) suggested that gender might not mediate the relationship between financial attitude, behavior, and literacy. These diverse findings indicate that while gender can influence financial literacy, this effect may vary depending on the context, population, and other intersecting factors, necessitating a more nuanced approach to understanding and addressing financial education needs across genders.

Table 11. Mean comparison of financial literacy among different income levels of respondents

Factors		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**	**Interpretation***
Financial Knowledge	Between Groups	0.144	1.000	0.144	0.861	0.357	Do not differ significantly.
	Within Groups	11.071	66.000	0.168			
	Total	11.215	67.000				
Financial Behavior	Between Groups	0.422	1.000	0.422	2.593	0.112	Do not differ significantly
	Within Groups	10.746	66.000	0.163			
	Total	11.168	67.000				
Financial Awareness	Between Groups	0.187	1.000	0.187	0.487	0.488	Do not differ significantly
	Within Groups	25.383	66.000	0.385			
	Total	25.570	67.000				
Financial Attitude	Between Groups	0.150	1.000	0.150	0.672	0.415	Do not differ significantly
	Within Groups	14.775	66.000	0.224			
	Total	**14.925**	**67.000**				
Overall Financial Literacy	Between Groups	0.003	1.000	0.003	0.031	0.861	Do not differ significantly
	Within Groups	6.785	66.000	0.103			
	Total	**6.788**	**67.000**				

Table 11 presents the mean comparison of financial literacy among respondents with different income levels, analyzed across various factors. The results indicate no significant differences in financial literacy factors between income groups. Specifically, the analysis shows no significant differences in Financial Knowledge, suggesting that financial knowledge does not vary significantly with income levels. Financial Behavior also does not show significant differences, indicating that financial behavior remains relatively consistent across different income groups. Similarly, Financial Awareness and Financial Attitude do not differ significantly among the different income levels. Lastly, the Overall Financial Literacy score also does not show significant differences, highlighting that general financial literacy is consistent across various income groups. This indicates that while specific financial literacy components may show slight variances, these differences are not statistically significant among respondents with different income levels.

Studies consistently reveal that financial literacy levels are generally low, particularly among specific demographic groups such as women, minorities, and lower-income individuals (Scheresberg, 2013; Bhushan, 2013). However, the relationship between financial literacy and income is complex and somewhat straightforward. Some research, such as that by Coşkun (2019), identifies a positive correlation between higher income levels and better financial literacy, suggesting that greater financial resources might enable individuals to acquire more financial knowledge. In contrast, other studies like Scheresberg (2013) report no significant differences in financial literacy across different income brackets, indicating that financial literacy is influenced by a broader range of factors beyond just income.

Besides income, other variables such as education, gender, and age significantly influence an individual's financial literacy (Bhushan, 2013; Coşkun, 2019). For instance, higher educational attainment is generally associated with better financial understanding and behaviors, while gender disparities highlighted by Bhushan (2013) point towards the need for gender-specific financial education initiatives. Age also plays a role, with varying impacts of financial literacy observed across different life stages.

Moreover, the interplay between financial knowledge, behavior, and attitudes is critical in shaping an individual's financial literacy (Bhushan, 2014). Financial knowledge forms the foundation, but with the appropriate behaviors and attitudes, this knowledge may effectively translate into sound financial practices. For example, someone might understand basic financial concepts but still engage in poor financial behaviors due to negative attitudes toward saving or investing. These findings suggest that enhancing financial literacy requires a multifaceted approach beyond merely boosting income. Tailored financial education programs that address the specific needs of different demographic groups and foster positive financial attitudes and behaviors are essential for truly improving financial literacy and enabling more informed financial decision-making across diverse populations.

Table 12. ANOVA results on financial literacy among different financial literacy training respondents

Factors		Sum of Squares	df	Mean Square	F	Sig.	Interpretation
Financial Knowledge	Between Groups	0.038	2.000	0.019	0.111	0.895	Do not differ significantly
	Within Groups	11.177	65.000	0.172			
	Total	11.215	67.000				
Financial Behavior	Between Groups	0.202	2.000	0.101	0.597	0.553	Do not differ significantly
	Within Groups	10.967	65.000	0.169			
	Total	11.168	67.000				
Financial Awareness	Between Groups	0.123	2.000	0.062	0.157	0.855	Do not differ significantly
	Within Groups	25.447	65.000	0.391			
	Total	25.570	67.000				
Financial Attitude	Between Groups	0.761	2.000	0.381	1.747	0.182	Do not differ significantly
	Within Groups	14.164	65.000	0.218			
	Total	**14.925**	**67.000**				
Overall Financial Literacy	Between Groups	0.019	2.000	0.009	0.090	0.914	Do not differ significantly
	Within Groups	6.769	65.000	0.104			
	Total	**6.788**	**67.000**				

Table 12 presents the ANOVA results examining financial literacy among respondents who have undergone different types of financial literacy training. The table analyzes various financial literacy factors, including Financial Knowledge, Financial Behavior, Financial Awareness, Financial Attitude, and Overall Financial Literacy. The results indicate that Financial Knowledge, Behavior, Awareness, Attitude, and Overall Financial Literacy do not differ significantly among respondents with different training backgrounds. Overall, financial literacy does not show significant variation among the groups analyzed.

The literature indicates that financial literacy is a multifaceted construct influenced by various factors, each contributing to the overall understanding and application of financial knowledge. Bhushan (2014) emphasizes that financial attitudes and behaviors are crucial to financial literacy. This viewpoint stresses that possessing financial knowledge alone is insufficient; individuals must also develop positive attitudes toward financial management and engage in constructive behaviors to effectively apply their knowledge.

Similarly, Vieira (2021) and Atkinson (2021) argue for the importance of financial education programs and acknowledge the significant impact of socio-economic conditions on financial literacy. Financial education programs are essential for equipping individuals with the knowledge and skills to make informed financial decisions. However, socio-economic conditions, such as income level, access to educational resources, and economic stability, also play a critical role in shaping individuals' financial knowledge, attitudes, and behaviors. These factors can either facilitate or hinder the effectiveness of financial education, highlighting the need for such programs to be tailored to the specific circumstances of different demographic groups.

Aren (2014) further underscores the necessity of developing a well-structured definition of financial literacy that considers its potential determinants and consequences. A clear and comprehensive definition can help design more targeted and effective financial education initiatives while providing a framework for assessing the outcomes of such programs.

These findings align with the ANOVA results, which indicate that financial literacy does not significantly differ among respondents with different training backgrounds. This suggests that merely providing financial training may not be sufficient to enhance financial literacy effectively. Instead, a more holistic approach that includes knowledge dissemination and the development of positive financial attitudes and behaviors is necessary. Such an approach may consider different demographic groups' varying needs and circumstances to ensure the education provided is relevant and practical.

Conclusion

The study indicates that financial behavior varies significantly, underscoring the necessity of age-appropriate financial education programs. Tailoring financial education to different age groups can address the unique financial challenges and learning preferences associated with each stage of life, ultimately fostering better financial behaviors across all ages. This approach ensures that younger individuals develop sound financial habits early on while older individuals receive the knowledge needed to make informed financial decisions as they approach retirement.

Higher educational attainment correlates with better financial knowledge, behavior, and attitudes, highlighting educational background's crucial role in financial literacy. Therefore, enhancing educational programs and integrating comprehensive financial education into the curriculum could significantly improve financial literacy outcomes. By embedding financial education within the broader educational system, individuals can build solid financial knowledge and skills that will benefit them throughout their lives, leading to more informed and responsible financial behaviors.

The observed gender disparities in financial behavior, attitude, and overall financial literacy underscore the need for gender-specific financial literacy interventions. Developing programs that cater to the unique financial challenges and perspectives of different genders can help bridge the observed gaps and promote equitable financial understanding. Although income level and the frequency of financial literacy training did not significantly impact financial literacy, it remains essential to offer ongoing and accessible financial education programs. Continuous engagement and practical financial training can reinforce financial concepts and behaviors, benefiting cooperative members regardless of their income level or prior training exposure.

Acknowledgement

These should be included at the end of the text and not in footnotes. Personal acknowledgements should precede those of institutions or agencies.

References

Agarwal, S., & Mazumder, B. (2016). Cognitive abilities and household financial decision making. Journal of Financial Economics, 121(2), 305-324. DOI: 10.1016/j.jfineco.2016.02.001

Ali, A., Anderson, M., & McNair, B. (2016). The significance of household income and effective credit management for financial well-being. International Journal of Bank Marketing, 34(3), 317-339. DOI: 10.1108/IJBM-10-2014-0146

Allgood, S., & Walstad, W. B. (2016). The effects of perceived and actual financial literacy on financial behaviors. Economic Inquiry, 54(1), 675-697. https://doi.org/10.1016/j.appdev.2016.07.002

Asaad, C.T. (2015). Financial literacy and financial behavior. Financial Services Review. https://doi.org/10.61190/fsr.v24i2.3236

Atkinson, A., & Messy, F. A. (2014). Measuring financial literacy: Results of the OECD/INFE pilot study. Journal of Financial Services Marketing, 19(2), 178-186. DOI: 10.1057/fsm.2014.17

Baptista, S.M. (2021). The Influence of Financial Attitude, Financial Literacy, and Locus of Control on Financial Management Behavior (Study Case Working-Age of Semarang). https://doi.org/10.23887/IJSSB.V5I1.31407

Bateman, H., Deetlefs, J., Dobrescu, L. I., Newell, B. R., Ortmann, A., & Thorp, S. (2014). Retirement investor risk aversion and portfolio choice heterogeneity. Journal of Pension Economics & Finance, 13(4), 427-446. DOI: 10.1017/S1474747214000104

Brown, S., Henchoz, C., & Spycher, T. (2015). Culture and financial literacy: Evidence from a within-country difference. Journal of Consumer Psychology, 25(2), 274-293. DOI: 10.1016/j.jcps.2014.11.002

Bucher-Koenen, T., Lusardi, A., Alessie, R., & van Rooij, M. (2017). How financially literate are women? An overview and new insights. Journal of Consumer Affairs, 51(2), 255-283. https://doi.org/10.2139/ssrn.3063896

Chaulagain, R. (2017). Relationship between Financial Literacy and Behavior of Small Borrowers. NRB Economic Review. https://doi.org/10.3126/nrber.v29i1.52529

Chetty, Raj, Aiyengar, S., Feller, A. D., Rouse, C. E., & Saenz, E. M. (2014). The FICO and Vantage Credit Scoring Systems: Evidence and Analysis. National Bureau of Economic Research Working Paper No. 20329

Chen, H., and R. P. Volpe. "An Analysis of Personal Financial Literacy among College Students." Financial Services Review 7.1 (1998): 107-128.

Collins, J. M. (2015). Financial literacy and financial education: What works? SSRN Electronic Journal, 14(2), 153-186. https://doi.org/10.2139/ssrn.2581284

Deepak, C., Singh, P., & Kumar, A. (2015). Financial Literacy Among Investors: Theory and Critical Review of Literature. FinPlanRN: Financial Therapy.

Ermawati, L. (2019). The Effect of Financial Literacy on Financial Performance in Cooperatives of State Employees in Bandar Lampung. FINANSIA: Jurnal Akuntansi dan Perbankan Syariah. https://doi.org/10.32332/finansia.v2i01.1441

Farrell, L., Fry, T. R., & Risse, L. (2016). The significance of financial self-efficacy in explaining women's personal finance behavior. Australian Economic Review, 49(2), 160-170. DOI: 10.1111/1467-8462.12151

Fernandes, D., Lynch, J. G., & Netemeyer, R. G. (2014). Financial literacy, financial education, and downstream financial behaviors. Management Science, 60(8), 1861-1883. https://doi.org/10.1287/mnsc.2013.1849

Fernandes, D., Lynch, J. G., & Netemeyer, R. G. (2014). Financial literacy, financial education, and downstream financial behaviors.

Management Science, 60(8), 1861-1883. https://doi.org/10.1177/0022242914535956

Fonseca, R., Mullen, K. J., Zamarro, G., & Zissimopoulos, J. (2014). What explains the gender gap in financial literacy? The role of household decision making. Journal of Consumer Affairs, 46(1), 90-106. https://doi.org/10.1016/j.jebo.2012.06.018

Gentile, M., Linciano, N., & Soccorso, P. (2016). Financial Advice Seeking, Financial Knowledge and Overconfidence. Evidence from the Italian Market. Commissione Nazionale per le Societa e la Borsa (CONSOB) Research Paper Series. https://doi.org/10.2139/SSRN.2802589

Grashuis, J., & Su, Y. (2019). A Review of the Empirical Literature on Farmer Cooperatives: Performance, Ownership and Governance, Finance, and Member Attitude. Social Entrepreneurship eJournal. https://doi.org/10.1111/apce.12205

Greenberg, A.E., & Hershfield, H.E. (2018). Financial decision making. Consumer Psychology Review. https://doi.org/10.1002/ARCP.1043

hofsteeHasler, A., & Lusardi, A. (2018). The gender gap in financial literacy: A global perspective. Global Financial Literacy Excellence Center Working Paper. https://doi.org/10.2139/ssrn.3175658

Ibrahim, M.E., & Alqaydi, F.R. (2013). Financial Literacy, Personal Financial Attitude, and Forms of Personal Debt among Residents of the UAE. International Journal of Economics and Finance, 5, 126. https://doi.org/10.5539/IJEF.V5N7P126

Irawati, L., and K. S. Lubis. "The Effect of Financial Literacy and Capital Management on MSME Performance." Title of the Journal 1(1) (Year of publication): 9. doi:10.54099/aijb.v1i1.66

Jones, D.C., & Kalmi, P. (2015). Membership and Performance in Finnish Financial Cooperatives: A New View of Cooperatives? Review of Social Economy, 73, 283-309. https://doi.org/10.1080/00346764.2015.1067753

Kaiser, T., & Menkhoff, L. (2017). Does financial education impact financial literacy and financial behavior, and if so, when? The Journal of Financial Economics, 131(3), 589-614. https://doi.org/10.1016/j.jfineco.2016.10.006

Kannangara, T., & Ali Mohammed, L. (2023). Study on Identifying the Level of Inclusion of Financial Literacy in the Secondary School Curriculum Grades 10 and 11 in Sri Lanka. International Journal of Emerging Issues in Social Science, Arts, and Humanities. https://doi.org/10.60072/ijeissah.2023.v2i01.002

Lea, S. E. G., Webley, P., & Levine, R. M. (2016). The economic psychology of consumer debt. Journal of Economic Psychology, 52, 71-88. DOI: 10.1016/j.joep.2015.12.002

Lusardi, A., & de Bassa Scheresberg, C. (2017). Financial literacy and high-cost borrowing in the United States. Journal of Economic Behavior & Organization, 107, 265-285. https://doi.org/10.1016/j.jebo.2014.02.009

Lusardi, A., Michaud, P.-C., & Mitchell, O. S. (2017). Optimal Financial Knowledge and Wealth Inequality. Journal of Political Economy, 125(2), 431-477. https://doi.org/10.1086/690950

Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. Journal of Economic Literature, 52(1), 5-44. https://doi.org/10.1093/rof/rfs014

Lusardi, A., Mitchell, O. S., & Curto, V. (2014). Financial literacy and financial sophistication among older Americans. Journal of Pension Economics and Finance, 13(4), 347-366. https://doi.org/10.2139/ssrn.1685133

Lusardi, A., Mitchell, O.S., & Curto, V.E. (2019). Financial Literacy Among the Young. FinPlanRN: Financial Therapy. https://doi.org/10.2139/ssrn.1476982

Mckillop, D.G., French, D., Quinn, B., Sobiech, A.L., & Wilson, J.O. (2020). Cooperative financial institutions: A review of the literature. International Review of Financial

Analysis, 71, 101520-101520. https://doi.org/10.1016/j.irfa.2020.101520

McKee, K. & Kagan, C. (2014). Financial capability and the role of financial services provision. Journal of Poverty and Social Justice, 22(4), 291-303. DOI: 10.1016/j.jebo.2014.03.021

Miller, M., Reichelstein, J., Salas, C., & Zia, B. (2015). Can you help someone become financially capable? A meta-analysis of the literature. World Bank Research Observer, 30(2), 220-246. DOI: 10.1093/wbro/lkv009

Miller, M.J., Reichelstein, J., Salas, C.E., & Zia, B. (2014). Can You Help Someone Become Financially Capable? A Meta-Analysis of the Literature. World Bank Policy Research Working Paper Series. https://doi.org/10.1093/WBRO/LKV009

Mitchell, O. S. (2014). Financial literacy and financial decisions. Journal of Consumer Affairs, 48(2), 331-349

Morris, M. D., & Perry, V. G. (2014). Who is in control? The role of self-perception, knowledge, and income in explaining consumer financial behavior. Journal of Business Research, 67(5), 1415-1423. 10.1007/s10834-014-9392-3

Mugo, E. (2016). "Effect of Financial Literacy on Investment Decisions among Savings and Credit Co-operative Societies Members in Nairobi." (12/01467).

Németh, E., Béres, D., Huzdik, K., Deák-Zsótér, B., & Mészáros, A. (2022). Teachers' Financial Literacy. Pénzügyi Szemle = Public Finance Quarterly. https://doi.org/10.35551/pfq_2022_1_1

Nye, P., & Hillyard, C. (2013). Personal Financial Behavior: The Influence of Quantitative Literacy and Material Values. Numeracy, 6, 3. https://doi.org/10.5038/1936-4660.6.1.3

OECD. (2018). OECD/INFE toolkit for measuring financial literacy and financial inclusion. OECD Publishing. https://doi.org/10.1787/9789264281318-en

Perry, V. G., & Morris, M. D. (2014). Who is in control? The role of self-perception, knowledge, and income in explaining consumer financial behavior. Journal of Consumer Affairs, 48(3), 391-410. DOI: 10.1111/joca.12042

Peach, N.D., & Yuan, H. (2017). Assessing the Financial Knowledge, Behaviours, and Attitudes of Undergraduates. e-Journal of Business Education and Scholarship of Teaching, 11, 27-38.

Perez, C.J., & Lopez, A. (2020). Financial Literacy and Borrowing Practices of School-based Multi-purpose Cooperative Members in Bacolod City. https://doi.org/10.52006/MAIN.V3I2.138

Rai, K., Dua, S., & Yadav, M.P. (2019). Association of Financial Attitude, Financial Behaviour and Financial Knowledge Towards Financial Literacy: A Structural Equation Modeling Approach. FIIB Business Review, 8, 51-60. https://doi.org/10.1177/2319714519826651

Rahmayanti, W., Nuryani, H.S., & Salam, A. (2019). Pengaruh Sikap Keuangan dan Perilaku Keuangan terhadap Literasi Keuangan. Jurnal Manajemen dan Bisnis. https://doi.org/10.37673/JMB.V2I1.267

Ramalho, T.B., & Forte, D. (2019). Financial Literacy in Brazil – Do Knowledge and Self-Confidence Relate with Behavior? RAUSP Management Journal. https://doi.org/10.1108/RAUSP-04-2018-0008

Robb, C. A., and D. L. Sharpe. "Effect of Personal Financial Knowledge on College Students' Credit Card Behavior." Journal of Financial Counseling and Planning 20(1) (2009): 25-43 DOI: 10.2139/ssrn.1445635

Roy, S., Singh, R., & Singh, H.R. (2017). Impact of Financial Awareness on Financial Inclusion of Members of Self Help Groups: A Study in Tripura. Asian Journal of Research in Banking and Finance, 7, 39-59. https://doi.org/10.5958/2249-7323.2017.00091.8

Sabri, Y. (2014). Financial literacy, financial behavior, and financial well-being: A literature review. Journal of Financial Counseling and Planning, 23(1), 7-22.

Sharifi, O. (2013). Financial Management and Ratio Analysis for Agricultural Cooperatives.

Shefrin, H. (2015). Behavioral risk management: Managing the psychology that drives decisions and influences operational risk. Kogan Page. DOI: 10.5040/9780749462474

Shetty, V., & N., A. (2023). Beneficiaries Behavioural Intention Towards Primary Agricultural Co-Operative Credit Society – A Development of Conceptual Model. International Journal of Case Studies in Business, IT, and Education. https://doi.org/10.47992/ijcsbe.2581.6942.0298

Spadaro, G., Jin, S., & Balliet, D. (2022). Gender differences in cooperation across 20 societies: a meta-analysis. Philosophical Transactions of the Royal Society B, 378. https://doi.org/10.1098/rstb.2021.0438

van Rooij, M., Lusardi, A., & Alessie, R.J. (2017). Financial Literacy and Stock Market Participation. FEN: Behavioral Finance (Topic). https://doi.org/10.2139/ssrn.1476958

Tang, N., & Baker, A. (2016). Self-esteem, financial knowledge and financial behavior. Journal of Consumer Affairs, 50(2), 431-457. DOI: 10.1111/joca.12088

Tomasi, M. (2020). "Perspective of Financial Literacy on Agribusiness Performance in Uganda: A Close Look at Farmers' Attitude and Social Media Platforms." Title of the Journal 5(01): 10. doi:10.36348/sjbms.2020.v05i01.010

Xavier, T.P., Ferreira, M.C., & Bizarrias, F.S. (2020). The Relation between Financial Attitude, Consumer Purchasing Behavior and Debt Background. https://doi.org/10.5585/remark.v18i4.13898

Xiao, J. J., & O'Neill, B. (2016). Consumer financial capability and well-being in the United States: The case of financial literacy, financial education, and credit counseling. International Journal of Consumer Studies, 40(1), 101-106. DOI: 10.1111/ijcs.12283

Xiao, J. J., & Tang, C., Serido, J., & Shim, S. (2014). Financial capability and related financial behaviors among U.S. young adults. Journal of Family and Economic Issues, 35(2), 197-208. https://doi.org/10.1111/ijcs.12077

Xiao, J. J., & O'Neill, B. (2016). Consumer financial education and financial capability. International Journal of Consumer Studies, 40(6), 712-721. https://doi.org/10.1111/ijcs.1228

Xiao, J.J., Chen, C., & Sun, L. (2015). Age Differences in Consumer Financial Capability. International Journal of Consumer Studies, 39, 387-395. https://doi.org/10.1111/IJCS.12205

Yau, J.T. (2022). Financial Literacy and Financial Behaviour in Four Different Age Groups in Malaysia. UNIMAS Review of Accounting and Finance. https://doi.org/10.33736/uraf.5248.2022

Yong, C., Yew, S., & Wee, C. (2018). Financial Knowledge, Attitude and Behaviour of Young Working Adults in Malaysia.