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The Role of Investment Motivation in Financial Literacy and Women's Behavior

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Abstract

This study explores how financial literacy, financial education, and self-control affect investment motivation and financial behavior among women in Medan, Indonesia. Structured questionnaires were distributed three times between February and June 2024, with 270 participants responding on five key topics: financial behavior, investment motivation, financial literacy, education, and self-control. Using Partial Least Squares Structural Equation Modeling (PLS-SEM) for analysis, the findings reveal that both financial literacy and education significantly enhance investment motivation and financial behavior. Higher education levels correlate with better financial literacy, resulting in more strategic investment decisions. Although many respondents allocate a significant portion of their income to monthly expenses, those with higher financial literacy manage their finances more effectively. However, the study finds no significant impact of self-control on investment motivation and financial behavior, possibly due to the respondents' younger age and lower income. This research underscores the importance of financial literacy and education in shaping financial behavior.

Keywords: Financial behavior of women, financial literacy, investment motivation, financial education, self-control

1. Introduction

Planning is a crucial first step in any endeavor, including finance. Financial planning is particularly important for women as it provides a roadmap to financial freedom (Flynn, 2021). It involves setting financial goals and is the initial step towards achieving financial independence by accumulating assets that surpass liabilities (Hopkins, 2024). Women must be able to manage their finances effectively, including setting financial goals, performing wallet checks, and keeping track of finances to ensure wallet health. (Hopkins, 2024; Marpaung, Koto, et al., 2022; OJK, 2021). According Stinson (2023) about 66% of women in Canada have less income than men. Therefore, women have less opportunity to manage their finances in investment than men. Investment is an important method of preparing future reserves, especially for women who want to ensure long-term financial security (Gunawan et al., 2021). The Financial Services Authority in Indonesia actively promotes investment to increase the participation of local investors, including women, to support the country's economy through capital security (OJK, 2023). Given that investment risks correlate with financial literacy, knowledge, motivation, income, and the benefits of investing, women need to conduct a thorough risk analysis to minimise their risks.

Advances in information technology, particularly smartphone applications, provide women with greater access to financial information. This technology influences women's lifestyles, which often follow consumptive trends. Therefore, financial literacy is crucial for women to ensure healthy financial management and avoid mistakes. (Damian et al., 2020). Financial knowledge or financial literacy is crucial for women in investment decision-making. Based on the Theory of Planned Behavior, enhancing financial literacy and understanding investment decisions can help individuals improve their financial management (Ajzen, 1991; Oppong et al., 2023).

Financial literacy encompasses knowledge, attitudes, and behaviors related to financial management that specifically support women's well-being (Atkinson & Messy, 2012; Potrich et al., 2016). However, Women in developing countries often face additional challenges such as illiteracy and limited resources, which exacerbate their difficulties in accessing financial education (Marpaung, Harjito, et al., 2022; Sundarasen et al., 2023). This phenomenon can be attributed, in part, to their relatively weak level of financial knowledge and understanding (Hendriks, 2019). Financial education is a crucial foundation for improving women's financial literacy, providing necessary knowledge in schools, universities, and workplaces (Mireku et al., 2023). Despite efforts to enhance financial education, the low level of financial literacy among women indicates that there are still gaps in information dissemination (Yap et al., 2016). Financial literacy is crucial for women as it empowers them to make confident financial decisions, secure long-term well-being, and overcome economic vulnerabilities. Financially literate women, who often benefit from formal education in financial matters, are better at planning their futures, accumulating wealth, and contributing to the economic stability and growth of their families and communities (Haque & Zulfiqar, 2016; Hendriks, 2019; Tambun et al., 2022).

In addition, self-control is very important in women's financial management. The study found that generating personal financial self-control strategies is more effective in reducing spending than learning expert strategies (Peetz & Davydenko, 2021). This ability helps women make wise financial decisions and avoid harmful financial behaviors. Self-control is directly linked to healthy financial behaviors. Individuals with higher self-control tend to adopt beneficial financial habits, such as saving, budgeting, and managing debt effectively (Peetz & Davydenko, 2021). This leads to improved financial well-being, as they are able to avoid harmful financial behaviors and make wiser financial decisions (Raaij et al., 2023). Self-control helps in dealing with negative impulses and considering appropriate actions in financial management. Research by Sekścińska et al. (2021) shows that trait self-control is positively related to the propensity to invest, meaning that individuals with higher levels of self-control are more likely to be active in investment activities.

Research on financial planning and literacy for women helps understand and improve their financial health. The contribution of this research includes identifying gaps in financial education, such as limited access to information and consumer habits influenced by technology. The urgency of this research stems from the absence of specific data regarding the percentage of income allocated for investment by women respondents. This lack of data highlights a critical gap in understanding the financial behavior of women, particularly regarding their capacity to invest. Given that investments are generally made by individuals with surplus funds, it is essential to consider the financial realities faced by women with low incomes, who are likely to prioritize daily living needs over investments. Bridging this gap could provide valuable insights for targeted financial education and empowerment programs tailored to women. Key issues identified include insufficient education, low financial literacy, and the impact of consumption trends. By understanding these issues, research can design better intervention strategies and support policies to enhance access to financial education, helping women avoid financial pitfalls and achieve financial independence. This research was carried out in Medan, a city located in North Sumatra, Indonesia. Overall, while financial literacy, financial education, and self-control are crucial factors, they must be integrated into a comprehensive financial planning approach tailored for women to achieve financial independence and avoid future financial problems.

2. Literature Review

Literacy to Investment Motivation and Financial Behavior

Financial literacy refers to the knowledge and understanding of financial concepts, enabling individuals to make informed and effective decisions regarding financial resources. Financial behavior is closely related to the application of financial literacy. According to Chaulagain (2017) financial behavior is part of the application of financial literacy which is believed to have a positive impact on a person's financial well-being, gradually, a person's conscious behavior shows in decision making, comparing opportunity costs and looking for alternatives in minimizing waste (Bannier & Schwarz, 2018; Mireku et al., 2023; Rink et al., 2021). Various scientific studies have been conducted to explore gender disparities in financial literacy, and the results consistently show that women generally have a lower level of financial literacy compared to men (Bannier & Schwarz, 2018; Sundarasen et al., 2023). The study shows a disparity in financial literacy between men and women, with men generally having higher levels of financial literacy than women. Different cultural norms and values influence how men and women are socialized to manage finances, with some cultures placing greater emphasis on financial responsibilities for men (Rink et al., 2021). However, in the study conducted by Bannier and Schwarz (2018) and Rink et al. (2021), higher education was found to enhance the effect of financial literacy on financial wealth, particularly for women.

H$_1$: There is a significant positive effect of financial literacy on women's financial behavior.

The gender gap in financial literacy is a significant issue in developing countries. Women often possess lower levels of financial knowledge and skills compared to men, which can hinder their ability to manage finances effectively (Bhabha et al., 2014). Financial literacy has been shown to significantly impact investment behavior. Households with higher levels of financial literacy are more likely to make informed investment decisions, such as diversifying their portfolios and avoiding high-risk investments (Adil et al., 2022; Mouna & Anis, 2017). Additionally, financial literacy is a crucial factor in mitigating biases, enabling individuals to make more rational investment decisions (Potrich et al., 2016). To be a successful investor, individuals need both strong investment motivation and a sufficient level of financial literacy regarding their investments.

H$_{2a}$: There is a significant positive effect of financial literacy on women's financial behavior

H$_{2b}$: Investment motivation moderates the relationship between financial literacy and women's financial behavior

Education to Investment Motivation and Financial Behavior

Financial education encompasses formal and informal learning opportunities designed to enhance financial knowledge, skills, and confidence. Promoting financial inclusion and empowering women requires prioritizing targeted interventions and educational initiatives, as emphasized by various studies (Sundarasen et al., 2023). Education provides the foundation for understanding financial concepts and applying them practically, which enhances financial behavior and decision-making. Karakurum-Ozdemir et al. (2019) observed that women in middle-income countries exhibit lower levels of financial literacy. Arianti (2018) states that financial behavior is a discipline that encompasses various fields of study and continuously synergizes both psychology and finance. Several previous studies have found that education level, both in terms of the number of years of schooling and the quality of education, has a positive impact on financial literacy and behavior (Ademola et al., 2019; Karakurum-Ozdemir et al., 2019; Stella et al., 2020; Tambun et al., 2022). These findings suggest that education plays a crucial role in improving financial literacy. By effectively addressing this challenge, society has the potential to create more equitable and sustainable economic opportunities for women, thereby improving their overall financial well-being (Karakurum-Ozdemir et al., 2019). This is in line with the opinion Stolper and Walter (2017), who argue that improving financial education and expanding access to professional financial advice can significantly enhance financial literacy and behavior, ultimately leading to better financial well-being for individuals and households.

H$_3$: There is a significant positive effect of financial education on women's financial behavior

Increased ethical awareness in evaluating needs versus wants, alongside the drive to generate profits and make informed investment decisions, can influence both current and future needs, helping to achieve financial well-being for the family through individual motivation. (Fielnanda, 2021). Investment motivation is the internal drive or reasoning that prompts individuals to engage in investment activities. Hudson et al. (2021) findings emphasize that financial knowledge and education are significant factors impacting African American women's investment behavior. Motivation encourages individuals to utilize their knowledge and resources effectively for investment, thus positively impacting financial behavior. Women with higher levels of financial knowledge and education are more likely to make informed investment decisions. Having financial education also provides knowledge in selecting and managing investment funds (Tambun et al., 2022). Investment motivation will have a positive impact if individuals have a sound and accurate perception (Rahman & Gan, 2020). Additionally, investment motivation can mediate the effect of financial literacy on healthy financial behavior among women.

H$_{4a}$: There is a significant positive effect of financial education on women's financial behavior

H$_{4b}$: Investment motivation moderates the relationship between financial education and women's financial behavior

Self-Control to Investment Motivation and Financial Behavior

Self-control is the ability to regulate impulses and prioritize long-term financial goals over immediate gratification. Women's financial involvement can have a transformative impact. When women actively participate in the financial system, they can better manage risks, smooth consumption during economic shocks, and fund household expenses such as education (Hendriks, 2019). One way to define self-control is as the capacity of our future selves to regulate our present behavior (Strömbäck et al., 2017). In theory, higher self-control enables better budgeting, saving, and investing habits. However, contextual factors like income and demographic characteristics might weaken its role in your study. Self-control encompasses everything an individual does or thinks, both before and during tempting situations, to help them resist temptations and stay aligned with their goals (Peetz & Davydenko, 2021). According to Alexander and Pamungkas (2019) and Strömbäck et al. (2017), financial behavior is the study of how individuals handle, manage, organize, and use their financial resources. Cognitive ability is considered an important factor influencing individual financial literacy and self-control. Individuals with higher cognitive ability tend to have a greater capacity to understand financial concepts and exhibit better self-control (Khoirunnisaa & Johan, 2020).

H_5: There is a significant positive effect of self-control on women's financial behavior

Two primary approaches to self-control are goal-based and conflict-of-interest approaches (Raaij et al., 2023). The goal-based approach involves setting personal goals and actively working to achieve them. In the context of financial planning, this means establishing objectives and effectively managing spending, saving, investing, and borrowing throughout life. Meanwhile, the conflict-of-interest approach involves balancing competing goals and needs. Both approaches are crucial in self-regulation and financial management (Bandura, 1997). Improved financial behavior reflects the successful application of financial knowledge, education, and motivational factors. Investment decisions are significantly influenced by personality traits and psychological biases such as social influence, self-control, and risk tolerance, with individuals with lower self-control taking less time to make investment decisions compared to those with higher self-control (Rahman & Gan, 2020).

H_{6a}: There is a significant positive effect of self-control on women's financial behavior

H_{6b}: Investment motivation moderates the relationship between self-control and women's financial behavior

H_7: There is a significant positive effect of Investment motivation on women's financial behavior

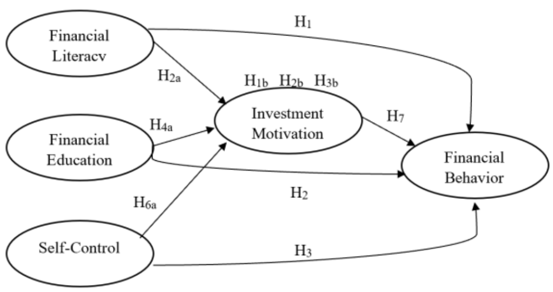

Figure 1: Theoretical research model

3. Research Method

The study population consists of women aged 18 and above residing in Medan. A questionnaire was distributed three times between February and June 2024, yielding a total of 270 female respondents as the research sample. The data collection involved a structured questionnaire comprising 30 questions. This questionnaire was designed to assess five key variables: 6 questions for the endogenous financial behavior variable (Hudson et al., 2021; Lusardi et al., 2014; Tambun et al., 2022), 6 questions for the mediating investment motivation variable (Adil et al., 2022), and 6 questions each for the exogenous variables: financial literacy (Adil et al., 2022; Lusardi et al., 2014), financial education (Tambun et al., 2022), and self-control (Sromback et al., 2017).

The study employs Partial Least Squares Structural Equation Modeling (PLS-SEM) as the analytical method. PLS-SEM is a variance-based approach within Structural Equation Modeling that is well-suited for exploring complex relationships among variables and handling small to medium sample sizes. This method is particularly flexible in dealing with complex models, such as those with numerous indicators or paths, and allows for the testing of non-recursive relationships. The analysis is divided into two main components: the measurement model and the structural model. The measurement model, or external model, evaluates how well the observed indicators (questions) represent the latent constructs (variables), and is assessed using the MultiTrait-MultiMethod (MTMM) approach. This approach focuses on ensuring both convergent validity, which verifies that indicators of the same construct are highly correlated, and discriminant validity, which ensures that indicators of different constructs are not highly correlated.

The structural model, or internal model, examines the relationships between the latent constructs and assesses how well the hypothesized paths (e.g., the impact of financial literacy on financial behavior) are supported by the data. In this study, a Likert scale ranging from 1 to 5 was utilized for respondents to indicate their level of agreement or frequency of behavior regarding each statement. This scale facilitates the quantification of responses and allows for a nuanced analysis of how different variables relate to one another. Overall, this comprehensive approach enables the study to rigorously evaluate the effects of financial literacy, education, and self-control on financial behavior and investment motivation, providing valuable insights into these dynamics among women in Medan.

4. Research Results and Discussion

Statistic Respondent

Table I of respondent characteristics in this study provides crucial information about their demographic backgrounds and financial behavior. The study focuses on women residing in Medan who are at least 18 years old. The majority of respondents are between 18 and 25 years old (65.6%), indicating that most are from a younger age group, although the minimum age requirement of 18 ensures that participants are legally adults and capable of making independent financial decisions. This younger demographic may face unique financial challenges and opportunities as they start to build their financial habits. In terms of income, the majority of respondents (31.5%) earn less than Rp. 1,000,000 per month, with others spread across higher income brackets, reflecting a range of financial capabilities among them. This wide income range suggests varying levels of financial pressure and resources available for investment. Most respondents have an educational background of Senior High School (SMA) or Vocational High School (SMK) (41.5%) or a bachelor's degree (40.7%), with a smaller proportion having higher education such as a master's or doctoral degree, highlighting a population largely consisting of individuals with higher education but not necessarily postgraduate degrees. This educational distribution indicates a generally informed population, though the presence of more advanced degrees could provide further insights into more nuanced financial behaviors.

TABLE I

DEMOGRAPHY CHARACTERISTICS OF PARTICIPANTS

Variable	N (%)	Variable	N (%)
Age		Monthly Income Levels	
18-25 Years Old	177 (65.6)	Less than Rp. 1,000,000	85 (31.5)
26-35 Years Old	44 (16.3)	Rp. 1,000,000 - Rp. 3,000,000	50 (18.5)
36-45 Years Old	30 (11.1)	Rp. 3,000,000 - Rp. 7,000,000	38 (14.1)
46-50 Years Old	14 (5.2)	Rp. 7,000,000 - Rp. 10,000,000	39 (14.4)
50 < Years Old	5 (1.9)	More than Rp. 10,000,000	58 (21.5)
Education		Percentage of Income Invested	
Senior High School	112 (41.5)	15% - 20%	186 (68.9)
Diploma	23 (8.5)	25% - 30%	388 (14.1)
Bachelor's Degree (S1)	110 (40.7)	35% - 40%	22 (8.1)
Master's Degree (S2)	24 (8,9)	45% - 50%	16 (5.9)
Doctoral Degree (S3)	0	More than 50%	8 (3)
Occupation:		Monthly Expenditure from Income	
Entrepreneur / Self-Employed	44 (16.3)	Less than 20%	24 (8.9)
State-Owned Enterprise Employee / Civil Servant	14 (5.2)	20% - 35%	61 (22.6)
Farmer / Fisherman	9 (3.3)	35% - 45%	59 (21.9)
Student	129 (47.7)	45% - 60%	59 (21.9)
Military / Police	10 (3.7)	More than 60%	67 (24.8)
Teacher / Lecturer	22 (8.2)		
Private Sector Employee	35 (13)		
Other	7 (2.5)		

Regarding employment, nearly half of the respondents are students (47.7%), while the remaining are distributed across various professions such as entrepreneurs, private employees, and teachers/lecturers. This high percentage of students suggests that financial behaviors might be influenced more by academic pressures and limited budgets than by established career income. Investment patterns show that the majority of respondents (68.9%) invest between 15% and 20% of their income, with a smaller percentage investing more than 50%. This distribution of investment behavior indicates a generally conservative approach to investing among the majority, with only a few able to commit larger portions of their income. In terms of monthly expenses, a significant proportion of respondents spend more than 60% of their income on monthly needs, which may reflect a high cost of living or financial constraints faced by many. This expenditure pattern suggests that financial management and budgeting are critical areas for improving financial health. Overall, this data provides insight into how the demographic characteristics and financial behavior of female respondents in Medan influence the study of financial literacy, education, and self-control on their financial behavior, with investment motivation serving as a mediating variable. The varying income levels and educational backgrounds may impact how financial literacy and education are applied, thus affecting overall financial behavior and investment choices.

Convergent Validity Results

In the convergent validity test of the instruments used in this study, the validity of the question items was evaluated based on their loading factor values. The initial confirmatory factor analysis indicated that several items did not meet the validity standard, as their loading factors were below the threshold of 0.6. Consequently, these items were excluded from further analysis to ensure the reliability of the data.

The testing of the outer model was redone using valid instruments. The results indicated that all question items and dimensions included in the test had loading factor values above 0.6, confirming their convergent validity. Specifically, items that failed to meet the validity criteria were from the self-control (SLC) variable. These included SLC3, SLC4, and SLC5, which had loading factors of -0.429, -0.388, and -0.476, respectively. These negative values indicated that these items were not appropriate for measuring the self-control construct and were thus considered invalid. Consequently, they were excluded from further analysis. Additionally, one item from the investment motivation (INV) variable, INV1, had a loading factor of 0.665, which is close but still meets the minimum threshold. However, INV5 had a loading factor of 0.584, and was below the 0.6 threshold and was removed from the analysis. Furthermore, one item from the financial behavior woman (FBW) variable, FBW1, had a loading factor of 0.571, which was also below the 0.6 threshold and was thus excluded. The remaining items, all with loading factors above 0.6, were retained for further examination to ensure the accuracy and credibility of the study's results.

TABLE II

OUTER LOADING

Variable	FCL	FCE	SLC	FBW	INV
FCL1	0.717				
FCL2	0.751				
FCL3	0.655				
FCL4	0.704				
FCL5	0.701				
FCL6	0.677				
FCE1		0.703			
FCE2		0.751			
FCE3		0.682			
FCE4		0.666			
FCE5		0.773			
FCE6		0.716			
SLC1			0.764		
SLC2			0.755		
SLC3			-0.429		
SLC4			-388		
SLC5			-0.476		
SLC6			0.73		
FBW1				0.571	
FBW2				0.795	
FBW3				0.705	
FBW4				0.643	
FBW5				0.663	
FBW6				0.632	
INV1					0.637
INV2					0.745
INV3					0.701
INV4					0.788
INV5					0.584
INV6					0.777

The testing of the outer model was redone using valid instruments. The results showed that all question items and dimensions included in the test had loading factor values above 0.6, confirming their convergent validity. Specifically, the financial literacy (FCL) items ranged from 0.694 to 0.756, the financial education (FCE) items ranged from 0.665 to 0.774, and the self-control (SLC) items ranged from 0.748 to 0.814. For Financial Behavior (FBW), the loading factors ranged from 0.643 to 0.829, and the investment motivation (INV) items ranged from 0.665 to 0.794. These results indicate that all items included in the final analysis met the convergent validity criteria, as detailed in Table III.

TABLE III

OUTER LOADING AFTER THREE STAGES OF DELETION

Variabel	FCL	FCE	SLC	FBW	INV
FCL1	0.726				
FCL2	0.756				
FCL4	0.694				
FCL5	0.719				
FCL6	0.699				
FCE1		0.703			
FCE2		0.749			
FCE3		0.683			
FCE4		0.665			
FCE5		0.774			
FCE6		0.718			
SLC1			0.814		
SLC2			0.781		
SLC6			0.748		
FBW2				0.829	
FBW3				0.750	
FBW4				0.689	
FBW5				0.643	
INV1					0.665
INV2					0.746
INV3					0.713
INV4					0.794
INV6					0.772

Discriminant Validity Results

The composite reliability analysis indicates that all variables in the study demonstrate high reliability. The composite reliability values are as follows: financial behavior women (FBW) is 0.820, investment motivation (INV) is 0.857, financial literacy (FCL) is 0.842, financial education (FCE) is 0.863, and self-control (SLC) is 0.824. Each of these values exceeds the threshold of 0.7, reflecting good internal consistency and reliable measurement of the constructs. The Average Variance Extracted (AVE) values further support the validity of the measurement instruments. The AVE values are: Financial Behavior Women (FBW) 0.535, Investment Motivation (INV) 0.547, Financial Literacy (FCL) 0.517, Financial Education (FCE) 0.513, and Self-Control (SLC) 0.610. All these values are above the 0.5 threshold, indicating that the variables explain more than half of the variance in their indicators and thus demonstrate adequate convergent validity.

TABEL IV

CONVERGENT VALIDITY

	Composite Reliability	AVE	Fornell-Larcker Criterion FBW	INV	FCL	FCE	SLC
FBW	0.82	0.54	0.62				
INV	0.86	0.56	0.46	0.64			
FCL	0.84	0.52	0.70	0.52	0.69		
FCE	0.86	0.51	0.58	0.59	0.58	0.72	
SLC	0.82	0.61	0.73	0.74	0.72	0.66	0.78

In addition to assessing internal consistency through Composite Reliability, the Fornell-Larcker Criterion was employed to evaluate discriminant validity. According to this criterion, the square root of the Average Variance Extracted (AVE) for each construct should exceed the correlations between that construct and other constructs.

The results from the Fornell-Larcker Criterion show that the square root of AVE values are as follows: Financial Behavior Women (FBW) is 0.621, Investment Motivation (INV) is 0.636, Financial Literacy (FCL) is 0.690, Financial Education (FCE) is 0.716, and Self-Control (SLC) is 0.781. These diagonal values confirm that each construct's square root of AVE is greater than its correlations with other constructs, indicating that the constructs possess adequate discriminant validity. Overall, the combination of high Composite Reliability values, favorable AVE scores, and positive Fornell-Larcker Criterion results underscores the reliability and validity of the measurement instruments used in the study. This robust evaluation ensures that the assessment of financial behavior and related constructs is both credible and accurate.

Hypothesis Test Results

The structural model analysis results presented in Table 5 highlight the relationships and significance levels among the constructs analyzed in the study. First, Hypothesis H1, which suggests a significant positive impact of financial literacy on women's financial behavior, is confirmed. The analysis reveals a strong and statistically significant positive relationship between financial literacy and women's financial behavior (FBW), with a t-statistic of 5.958 and a p-value of 0.000. This indicates that greater financial literacy is linked to improved financial behavior among women. Similarly, Hypothesis H3, which proposes a significant positive effect of financial education on women's financial behavior, is also supported. The data show a significant positive relationship between financial education and women's financial behavior (FBW), with a t-statistic of 2.488 and a p-value of 0.013, further confirming that financial education contributes to enhancing women's financial behavior.

The results regarding the moderating effects of investment motivation show mixed support for the hypotheses involving moderation. Hypothesis H2b, which suggests that investment motivation moderates the relationship between financial literacy and women's financial behavior, is supported. The mediation analysis reveals a significant indirect effect of financial literacy on women's financial behavior through investment motivation, with a t-statistic of 2.117 and a p-value of 0.009. This suggests that investment motivation plays a role in strengthening the relationship between financial literacy and financial behavior. Similarly, Hypothesis H4b, which proposes that investment motivation moderates the relationship between financial education and women's financial behavior, is also supported. The analysis shows a significant indirect effect of financial education on women's financial behavior through investment motivation, with a t-statistic of 2.63 and a p-value of 0.012. This indicates that investment motivation enhances the influence of financial education on financial behavior.

On the other hand, Hypothesis H5, which hypothesizes a significant positive effect of self-control on women's financial behavior, is not supported. The results show that self-control (SLC) does not have a significant direct effect on women's financial behavior, with a t-statistic of 0.765 and a p-value of 0.445. Additionally, Hypothesis H6a, which suggests a positive effect of self-control on women's financial behavior, is not supported, as is Hypothesis H6b, which posits that investment motivation moderates the relationship between self-control and women's financial behavior. The mediation effect of self-control through investment motivation is not significant (t-statistic of 1.48, p-value of 0.139), indicating that self-control does not play a significant role in this context.

TABLE V

RESULT OF THE STRUCTURE MODEL

	Original Sampel	Sampel Mean	Standard Dev.	T Stat.	P Values
FCL	0.465	0.459	0.078	5.958	0.000

-> FBW					
FCL -> INV	0.255	0.26	0.066	3.842	0.000
FCE -> FBW	0.204	0.203	0.082	2.488	0.013
FCE -> INV	0.376	0.375	0.073	5.153	0.000
SLC-> FBW	-0.052	-0.049	0.068	0.765	0.445
SLC -> INV	0.129	0.127	0.077	1.676	0.094
INV -> FBW	0.205	0.212	0.071	2.879	0.004
FCL -> INV-> FBW	0.052	0.053	0.025	2.117	0.009
FCE -> INV-> FBW	0.077	0.078	0.029	2.630	0.012
SLC -> INC -> FBW	0.026	0.025	0.018	1.480	0.139

Lastly, Hypothesis H7, which claims a significant positive effect of investment motivation on women's financial behavior, is supported by the results. The analysis shows a significant positive relationship between investment motivation and women's financial behavior (t-statistic of 2.879, p-value of 0.004), affirming that investment motivation directly enhances financial behavior.

In summary, the findings support the hypotheses related to the direct effects of financial literacy, financial education, and investment motivation on women's financial behavior, as well as the moderating role of investment motivation in these relationships. However, the hypotheses regarding the impact of self-control on financial behavior are not supported by the data.

Discussion

The findings of this study provide an initial contribution to understanding financial behavior and investment motivation among young individuals or those in the early stages of their careers. These findings hold strategic significance in the context of financial literacy development, as this demographic represents a critical group in shaping sustainable financial patterns and habits for the future. The objective of this study is to examine the factors influencing financial behavior and investment motivation, with a particular emphasis on gender differences. The findings indicate a significant positive relationship between financial literacy and both the financial behavior and investment motivation of women. This aligns with previous research, which demonstrates that enhanced financial literacy positively affects individuals' money management patterns and financial behavior (Bannier & Schwarz, 2018; Mireku et al., 2023; Stolper & Walter, 2017; Tambun et al., 2022). Women with higher levels of financial literacy are generally more strategic and prudent in their financial behaviors and exhibit stronger investment motivation (Hudson et al., 2021). Additionally, these studies suggest that financial literacy not only directly influences financial behavior but is also reinforced by investment motivation (Ademola et al., 2019; Mouna & Anis, 2017; Oppong et al., 2023). In essence, increased financial literacy enhances personal financial management and encourages individuals to invest, thereby improving financial management effectiveness (Bannier & Schwarz, 2018; Sundarasen et al., 2023). This study thus provides empirical evidence supporting the critical role of financial education in improving financial skills and promoting better investment decisions, particularly for women (Fielnanda, 2021; Stella et al., 2020). Furthermore, it expands the understanding of how financial literacy and investment motivation interact to shape financial behavior (Ademola et al., 2019; Karakurum-Ozdemir et al., 2019; Stolper & Walter, 2017).

These results are further underscored by the finding that while many respondents spend more than 60% of their income on monthly necessities, those with higher financial literacy are better equipped to manage their expenses and make more strategic investment decisions. Financial education enables individuals to prioritize savings and investments even within tight budget constraints, fostering healthier financial behavior (Hudson et al., 2021). The significant proportion of respondents who are university students highlights the importance of financial education at an early age (Stella et al., 2020; Topa et al., 2018). For younger individuals, acquiring financial knowledge helps develop sound financial habits and increases their motivation to invest, which contributes to more effective financial management (Stella et al., 2020; Topa et al., 2018). For these younger individuals, acquiring financial knowledge can encourage the development of good financial habits and increase their motivation to invest, which contributes to more effective financial management (Stella et al., 2020). Overall, the data emphasise that greater financial literacy and education are key factors of better investment motivation and healthier financial behaviour, illustrating the important role of financial knowledge in shaping financial practices (Potrich et al., 2016).

However, in contrast to the findings on financial literacy, this study did not find a significant effect of self-control on investment motivation and financial behavior. This contradicts prior studies, which suggest that self-control plays an important role in financial behavior and financial well-being (Strömbäck et al., 2017). This discrepancy may be attributable to several demographic and financial characteristics of the respondents. The majority of participants are young adults aged 18-25, a demographic that may not yet have fully developed financial habits or long-term investment strategies (Peetz & Davydenko, 2021). Moreover, many respondents earn less than Rp. 1,000,000 ($64) per month, with a large proportion of their income allocated to immediate needs, limiting their capacity for long-term financial planning (Raaij et al., 2023).

Additionally, the respondents' educational background could influence these results. Most respondents had only completed secondary education or held a bachelor's degree, with fewer possessing higher qualifications. This educational profile may affect their financial literacy and decision-making processes, thereby diminishing the observed impact of self-control on their investment behavior (Stella et al., 2020). The high proportion of students in the sample further suggests that their financial decisions are likely shaped more by immediate academic and living expenses than by long-term investment goals. Consequently, the financial behavior of the respondents appears to be more heavily influenced by their financial constraints and immediate needs than by self-control. This may explain the lack of a significant relationship between self-control and investment motivation in this study (Strömbäck et al., 2017).

Conclusion

This study reveals that financial literacy and financial education play a crucial role in enhancing investment motivation and financial behavior among women aged 18 and above in Medan. The analysis shows that higher education levels, often associated with better financial literacy, contribute to better investment decisions and healthier financial behaviors. Conversely, self-control did not show a significant impact on investment motivation and financial behavior. This may be due to current financial constraints limiting respondents' ability to engage in long-term financial planning. The lack of impact from self-control could also be influenced by lower educational backgrounds and a focus on immediate needs rather than investment planning.

However, this study has several limitations that should be considered. First, the sample, which only includes women from Medan, may not fully represent women in other regions or more broadly. Second, most respondents have educational backgrounds up to high school or bachelor's degree, which may affect the generalizability of the findings. Third, the cross-sectional design of the study limits the ability to assess changes in behavior and investment motivation over time. Additionally, the use of Likert scale in the questionnaire may introduce subjective bias in respondents' assessments. Limitations in assessing self-control and the impact of financial and demographic contexts not fully identified could also affect the results.

Overall, the study emphasizes that financial literacy and financial education are key factors in improving investment motivation and financial behavior. Practical implications of these findings include the importance of integrating financial literacy and education into formal and informal educational programs. Targeted outreach and training can help individuals better understand financial concepts and make better investment decisions, even with limited financial resources. Developing curricula that include financial literacy from a young age and supporting financial education through institutions and government initiatives can improve financial habits and investment decisions in the future. While self-control did not show significant effects, strategies to enhance financial management and long-term planning remain important for advancing individual financial well-being. These limitations should be considered in interpreting the results and can provide a basis for further research in the future.

References

Ademola, S. A., Musa, A. S., & Innocent, I. O. (2019). Moderating Effect of Risk Perception on Financial Knowledge, Literacy and Investment Decision. American International Journal of Economics and Finance Research, 1(1), 34–44.

Adil, M., Singh, Y., & Ansari, M. S. (2022). How financial literacy moderate the association between behaviour biases and investment decision ? Asian Journal OfAccounting Research, 7(1), 17–30. https://doi.org/10.1108/AJAR-09-2020-0086

Ajzen. (1991). The Theory of Planned Behavior. Organizational Behavior and Human Decision Processes, 50, 179–211. https://doi.org/10.47985/dcidj.475

Alexander, R., & Pamungkas, A. S. (2019). Pengaruh Pengetahuan Keuangan, Lokus Pengendalian Dan Pendapatan Terhadap Perilaku Keuangan. Jurnal Manajerial Dan Kewirausahaan, 1(1), 1–14.

Arianti, B. F. (2018). The Influence Of Financial Knowledge, Control And Income On Individual Financial Behavior. Economics and Accounting Journal, 1(1), 1–10.

Atkinson, A., & Messy, F.-A. (2012). Measuring Financial Literacy: Results Of The OECD (No. 15; OECD Working Papers on Finance, Insurance and

Private). https://www.oecd-ilibrary.org/docserver/5k9csfs90fr4-en.pdf?expires=1723179643&id=id&accname=guest&checksum=BA86FDF2FB187FF0F48FA1F1D56BEBBE

Bandura, A. (1997). Self-Efficacy: The Exercise of Control. W. H. Freeman and Company.

Bannier, C. E., & Schwarz, M. (2018). Gender- and education-related effects of financial literacy and confidence on financial wealth. Journal of Economic Psychology, 67, 66–86.

Bhabha, J. I., Khan, S., Qureshi, Q. A., Naeem, A., & Khan, I. (2014). Impact of financial literacy on saving-investment behavior of working women in the developing countries. Research Journal of Finance and Accounting, 5(13).

Chaulagain, R. P. (2017). Relationship Between Financial Literacy And Student Background. NRB Economic Review, 29(3), 33–55.

Damian, L. E., Negru-Subtirica, O., Domocus, I. M., & Friedlmeier, M. (2020). Healthy Financial Behaviors And Financial Satisfaction In Emerging Adulthood: A Parental Socialization Perspective. Emerging Adulthood, 8(6), 548–554.

Fielnanda, R. (2021). A Child Education Investment In Financial Planning Of A Family. Advances In Economics, Business And Management Research, 168, 107–110.

Flynn, A. (2021). The Importance of Financial Planning for Women. Forth Capital. https://www.forthcapital.com/articles/the-importance-of-financial-planning-for-women

Gunawan, V., Vera Intanie Dewi, Triyana Iskandarsyah, & Irsanti Hasyim. (2021). Women's financial literacy: Perceived financial knowledge and its impact on money management. Economics and Finance in Indonesia, 67(1), 63–74.

Haque, A., & Zulfiqar, M. (2016). Women's economic empowerment through financial literacy, financial attitude and financial wellbeing. International Journal of Business and Social Science, 7(3), 78–88.

Hendriks, S. (2019). The role of financial inclusion in driving women's economic empowerment. Development in Practice, 29(8), 1029–1038. https://doi.org/10.1080/09614524.2019.1660308

Hopkins, J. (2024). New Study Highlights How Women Can Control Their Financial Well-Being. Forbes. https://www.forbes.com/sites/jamiehopkins/2024/03/18/new-study-highlights-how-women-can-control-their-financial-well-being/

Hudson, C. R., Phillips, M., Smalls, T., & Young, J. (2021). Investment Behavior: Factors that Impact African American Women's Investment Behavior. Review of Black Political Economy, 48(3), 349–367. https://doi.org/10.1177/0034644620986882

Karakurum-Ozdemir, K., Kokkizil, M., & Uysal, G. (2019). Financial Literacy in Developing Countries. Social Indicators Research, 143, 325–353.

Khoirunnisaa, J., & Johan, I. R. (2020). The Effects of Financial Literacy and Self-Control towards Financial Behavior among High School Students in Bogor. Journal of Consumer Sciences, 5(2), 73–86. https://doi.org/10.29244/jcs.5.2.73-86

Lusardi, A., Mitchell, olivia s., & Curto, V. (2014). Financial literacy and financial sophistication in the older population. Journal of Pension Economics & Finance, 13(4), 347–366.

Marpaung, A. P., Harjito, D. A., Hamdani, R., & Ghazali, A. W. (2022). Boards of directors' feminism, audit committee, and corporate social responsibility. Jurnal Ekonomi Dan Bisnis, 25(1), 16–30. https://doi.org/10.24914/jeb.v25i1.4207

Marpaung, A. P., Koto, M., Shareza Hafiz, M., & Hamdani, R. (2022). Female Directors and Firm Performance: Evidence of Family Firm in Indonesia. Asian Journal of Economics, Business and Accounting, 22(1), 19–30. https://doi.org/10.9734/ajeba/2022/v22i130538

Mireku, K., Appiah, F., & Agana, J. A. (2023). Is there a link between financial literacy and financial behaviour? Cogent Economics & Finance, 11(1). https://doi.org/10.1080/23322039.2023.2188712

Mouna, A., & Anis, J. (2017). Financial literacy in Tunisia: Its determinants and its implications on investment behavior. Research in International Business and Finance, 39(Part A), 568–577.

OJK. (2021). Bukan Wanita Biasa: Yuk Pahami Peran Wanita dalam Keuangan Keluarga. Sikapiuangmu OJK. https://sikapiuangmu.ojk.go.id/FrontEnd/CMS/Article/40706

OJK. (2023). Like It Mendorong Literasi dan Investasi Keuangan Generasi Muda Pelaku Usaha. https://ojk.go.id/id/berita-dan-kegiatan/siaran-pers/Pages/Like-It-Mendorong-Literasi-dan-Investasi-Keuangan-Generasi-Muda-Pelaku-Usaha.aspx

Oppong, C., Abukari Salifu Atchulo, Akwaa-Sekyi, E. K., Grant, D. D., & Kpegba, S. A. (2023). Financial literacy, investment and personal financial management nexus: Empirical evidence on private sector employees. Cogent Business & Management, 10(2). https://doi.org/10.1080/23311975.2023.2229106

Peetz, J., & Davydenko, M. (2021). Financial self-control strategy use: Generating personal strategies reduces spending more than learning expert strategies. Journal of Experimental Social Psychology, 97, 104189.

Potrich, A. C. G., Vieira, K. M., & Mendes-Da-Silva, W. (2016). Development of a financial literacy model for university students. Management Research Review, 39(3), 356–376. https://doi.org/10.1108/MRR-06-2014-0143

Raaij, W. F. van, Leonore Riitsalu, & Kaire Põder. (2023). Direct and indirect effects of self-control and future time perspective on financial well-being. Journal of Economic Psychology, 99, 102667.

Rahman, M., & Gan, S. S. (2020). Generation Y investment decision: an analysis using behavioural factors. Managerial Finance, 46(8), 1023–1041. https://doi.org/10.1108/MF-10-2018-0534

Rink, U., Walle, Y. M., & Klasen, S. (2021). The financial literacy gender gap and the role of culture. The Quarterly Review of Economics and Finance, 80, 117–134.

Sekścińska, K., Rudzinska-Wojciechowska, J., & Jaworska, D. (2021). Self-control and investment choices. Journal of Behavioral Decision Making, 34(5), 691–705. 10.1002/bdm.2236

Sromback, C., Lind, T., Skagerlund, K., Vastfjall, D., & Tinghog, G. (2017). Does Self-Control Predict Financial Behavior And Financial Well-Being? Journal of Behavioral and Experimental Finance, 14, 1–19. https://doi.org/10.1016/j.jbef.2017.04.002

Stella, G. P., Filotto, U., Cervellati, E. M., & Graziano, E. A. (2020). The Effects Of Financial Education On Financial Literacy In Italy. International Business Research, 13(4), 44–51.

Stinson, J. (2023). Women and money: 7 steps for financial empowerment. Sun Life. https://www.sunlife.ca/en/tools-and-resources/money-and-finances/managing-your-money/how-women-can-build-their-financial-confidence/

Stolper, O. A., & Walter, A. (2017). Financial literacy, financial advice, and financial behavior. Journal of Business Economics, 87(5), 581–643. https://doi.org/10.1007/s11573-017-0853-9

Strömbäck, C., Lind, T., Skagerlund, K., Västfjäll, D., & Tinghög, G. (2017). Does self-control predict financial behavior and financial well-being? Journal of Behavioral and Experimental Finance, 14, 30–38. https://doi.org/10.1016/j.jbef.2017.04.002

Sundarasen, S., Rajagopalan, U., Kanapathy, M., & Kamaludin, K. (2023). Women’s financial literacy: A bibliometric study on current research and future directions. Heliyon, 9(12), e21379. https://doi.org/10.1016/j.heliyon.2023.e21379

Tambun, S., Sitorus, R. R., & Nurwanti, F. (2022). The effect of financial literacy and financial education on women ’ s healthy financial behavior through investment motivation. Jurnal Keuangan Dan Perbankan, 26(2), 288–300. https://doi.org/10.26905/jkdp.v26i2.7387

Topa, G., Hernández-Solís, M., & Zappalà, S. (2018). Financial Management Behavior Among Young Adults: The Role of Need for Cognitive Closure in a Three-Wave Moderated Mediation Model. Frontiers in Psychology, 9(1), 1–10. https://doi.org/10.3389/fpsyg.2018.02419

Yap, R. J. C., Komalasari, F., & Hadiansah, I. (2016). The effect of financial literacy and attitude on financial management behavior and satisfaction. Bisnis & Birokrasi Journal, 23(3), 140–146. https://doi.org/10.20476/jbb.v23i3.9175