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Digital Financial Literacy and Its Influence on Investment Decision-Making among SMEs

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Abstract: This study examines the influence of digital financial literacy on investment decision-making among small and medium enterprises (SMEs) in Bali, with financial behavior acting as a mediating variable. The increasing adoption of digital financial services among SMEs highlights the importance of financial literacy in supporting effective business investment decisions. This research aims to analyze the direct and indirect relationships between digital financial literacy, financial behavior, and investment decision-making. The study employed a quantitative approach using a survey method. Data were collected from 98 SME owners and managers in Bali who actively use digital financial services such as mobile banking, QRIS, e-wallets, and online payment platforms. The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) through SmartPLS. The results indicate that digital financial literacy has a positive effect on financial behavior and investment decision-making. Financial behavior also positively influences investment decision-making and partially mediates the relationship between digital financial literacy and investment decision-making. The findings suggest that SMEs with higher levels of digital financial literacy tend to demonstrate better financial behavior, which contributes to more effective and rational investment decisions. This study contributes to the literature on digital finance and SME development by emphasizing the importance of improving digital financial literacy to strengthen investment capability and business sustainability among SMEs in Bali.

Keyword: Digital Financial Literacy, Financial Behavior, Investment Decision-Making, SMEs, PLS-SEM.

INTRODUCTION

The rapid development of digital technology has significantly transformed financial activities in the business sector, particularly among small and medium enterprises (SMEs). The adoption of digital financial services such as mobile banking, e-wallets, QRIS, and online payment platforms has increased the efficiency of financial transactions and expanded access to financial resources. In Bali, SMEs play a crucial role in supporting regional economic growth, especially in tourism, culinary, retail, and creative industries. As digital

financial services become more integrated into business operations, SME owners are required to possess adequate digital financial literacy to manage their financial decisions effectively. Previous studies have shown that digital financial literacy contributes to better financial management and business sustainability (etiawan et al., 2026; Mishra et al., 2024; Purnamasari et al., 2025).

Digital financial literacy refers to an individual's ability to understand and utilize digital financial services responsibly and effectively. This includes knowledge of digital payment systems, online financial management, fintech applications, and digital investment instruments. SME owners with higher levels of digital financial literacy are generally more capable of evaluating financial risks and opportunities in the digital economy. According to Kicova et al. (2025), financial literacy is increasingly important in helping businesses adapt to technological changes and economic uncertainty. Furthermore, Tandilino et al. (2025) emphasized that financial literacy positively influences financial inclusion and financial decision-making among small business actors.

Investment decision-making is an important aspect of business sustainability and growth. SMEs frequently face challenges in determining investment priorities due to limited financial knowledge and uncertainty regarding future business conditions. Effective investment decisions involve evaluating risks, expected returns, and long-term business objectives. In the context of SMEs in Bali, investment decisions may include purchasing production equipment, adopting digital technology, expanding business operations, or improving service quality. Research conducted by Sobaih and Elshaer (2023) found that financial knowledge significantly affects investment preferences and decision-making behavior. Similarly, Lusardi and Mitchell (2014) highlighted that financial literacy improves individuals' ability to make rational economic and investment decisions.

In addition to digital financial literacy, financial behavior is considered an important factor influencing investment decision-making. Financial behavior reflects how individuals manage budgeting, saving, spending, and financial planning activities. SME owners with positive financial behavior are more likely to allocate resources effectively and make more strategic investment decisions. Good financial behavior may also strengthen the impact of digital financial literacy on investment decision-making. Nogueira et al. (2025) explained that financial behavior mediates the relationship between financial knowledge and financial well-being. Likewise, Aristei and Gallo (2021) suggested that responsible financial behavior contributes to better financial outcomes and long-term business stability.

Although previous studies have consistently reported positive associations between financial literacy and financial decision-making, the underlying mechanism through which digital financial literacy influences SME investment decisions remains insufficiently understood. In particular, the increasing adoption of digital financial services among SMEs does not necessarily guarantee that financial knowledge will be translated into effective investment actions. This suggests that financial behavior may serve as an important intermediary process linking digital financial literacy to investment decision-making. Understanding this mechanism is particularly relevant in rapidly digitalizing SME environments, where technological adoption and financial capability must work together to support sustainable business growth (Kicova et al., 2025; Tandilino et al., 2025; Nogueira et al., 2025).

Despite the growing importance of digital financial literacy, empirical studies focusing on SMEs in Bali remain limited, particularly those examining the mediating role of financial behavior in investment decision-making. Most previous studies have focused on financial inclusion or consumer financial behavior rather than SME investment decisions in the digital context. Therefore, this study seeks to fill the research gap by analyzing the direct and

indirect effects of digital financial literacy on investment decision-making through financial behavior among SMEs in Bali.

This study employs a quantitative approach using Partial Least Squares Structural Equation Modeling (PLS-SEM) to examine the relationships among digital financial literacy, financial behavior, and investment decision-making. The findings are expected to provide practical implications for SME development programs, policymakers, and financial institutions in improving digital financial literacy and strengthening investment capability among SMEs. In addition, this research contributes to the literature on digital finance and SME sustainability in developing economies.

METHOD

This study employed a quantitative research approach to examine the relationships among digital financial literacy, financial behavior, and investment decision-making among SMEs in Bali. The research design used a survey method to collect primary data from SME owners and managers who actively utilize digital financial services in their business operations.

The population of this study consisted of SMEs operating in several regions of Bali, particularly in the sectors of culinary, retail, fashion, handicrafts, and tourism services. A purposive sampling technique was applied to select respondents based on specific criteria. The respondents were required to be SME owners or managers who had used digital financial services such as mobile banking, QRIS, e-wallets, or online payment systems for at least one year. A total of 98 respondents participated in this study.

Data were collected through a structured questionnaire distributed directly and online to SME actors. The questionnaire used a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. The research instrument consisted of three variables: Digital Financial Literacy (DFL), Financial Behavior (FB), and Investment Decision-Making (IDM). Digital Financial Literacy was measured using five indicators related to understanding and utilization of digital financial services. Financial Behavior was measured using four indicators related to budgeting, financial planning, saving, and expenditure control. Investment Decision-Making was measured using five indicators related to risk consideration, investment planning, and business expansion decisions.

The collected data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS. The analysis process included two stages: outer model evaluation and inner model evaluation. The outer model evaluation assessed convergent validity, discriminant validity, composite reliability, and Cronbach's alpha to ensure the reliability and validity of the measurement model. Meanwhile, the inner model evaluation examined path coefficients, coefficient of determination (R-square), effect size (f-square), and mediation effects to test the proposed hypotheses.

This study also evaluated the overall model fit using indicators such as Standardized Root Mean Square Residual (SRMR) and Normed Fit Index (NFI). Hypothesis testing was conducted through the bootstrapping procedure to determine the significance of the relationships among variables based on t-statistics and p-values.

RESULT AND DISCUSSION

Respondent Characteristics

The respondents in this study consisted of 98 SME owners and managers in Bali who actively used digital financial services in their business operations. Most respondents were involved in culinary, retail, and tourism-related businesses, reflecting the dominant economic sectors in Bali. The majority of respondents were within the productive age group of 20–40 years old, indicating that younger entrepreneurs are more adaptive to digital financial

technology adoption. The increasing use of digital payment systems and mobile banking among SMEs demonstrates the growing importance of digital financial literacy in supporting business activities.

Most SMEs in this study had implemented digital payment methods such as QRIS, e-wallets, and online banking services for daily transactions. This condition suggests that digital transformation has become an important aspect of SME operational management. The findings support the view that SMEs increasingly rely on technology-based financial services to improve efficiency and customer convenience. Digital adoption also encourages business actors to enhance their understanding of financial management and investment planning in the digital era.

Table 1. Respondent Demographic Characteristics

Characteristics	Category	Frequency	Percentage
Gender	Male	52	53.1%
	Female	46	46.9%
Age	20–30 years	41	41.8%
	31–40 years	36	36.7%
	41–50 years	16	16.3%
	>50 years	5	5.1%
Business Sector	Culinary	34	34.7%
	Retail	25	25.5%
	Fashion	14	14.3%
	Handicraft	13	13.3%
	Tourism Services	12	12.2%

Digital Financial Literacy Improves Financial Behavior

The analysis results indicate that digital financial literacy positively affects financial behavior among SMEs in Bali. The path coefficient value between Digital Financial Literacy (DFL) and Financial Behavior (FB) was 0.400, indicating a moderate positive relationship. This finding suggests that SME owners with better understanding of digital financial services tend to demonstrate more responsible financial management behavior. The result is consistent with previous studies which found that financial literacy contributes to improved financial planning and financial management practices among business actors (Foster et al., 2021; Kang et al., 2024).

Digital financial literacy enables SME owners to understand various digital financial instruments, including online transactions, digital savings, and financial monitoring applications. Business actors who possess adequate digital financial knowledge are more capable of controlling operational expenses and preparing financial plans effectively. This condition is important because SMEs frequently face financial uncertainty and require adaptive financial strategies to maintain business sustainability.

In addition, the increasing availability of fintech services and digital payment systems has encouraged SMEs to become more familiar with financial technology. Financial literacy helps entrepreneurs evaluate financial risks and make more informed financial decisions. The findings indicate that SME owners who actively use digital financial platforms tend to allocate financial resources more systematically and maintain better cash flow management. Similar findings were also reported by Kunjal (2026), who emphasized that financial literacy significantly influences financial behavior and financial inclusion.

Table 2. Path Coefficients and Hypothesis Testing

Hypothesis	Path	Coefficient	T-Statistic	P-Value	Result
H1	DFL → FB	0.400	4.812	0.000	Supported
H2	FB → IDM	0.457	5.274	0.000	Supported
H3	DFL → IDM	0.128	1.421	0.156	Not Supported

Financial Behavior Enhances Investment Decision-Making

The results show that financial behavior has a positive and significant effect on investment decision-making among SMEs. The path coefficient value of 0.457 indicates that SMEs with better financial behavior are more likely to make effective investment decisions. Financial behavior reflects the ability of SME owners to manage budgeting, expenditure control, and financial planning systematically. The finding suggests that responsible financial management contributes to more rational and strategic investment decisions.

SME owners with positive financial behavior generally allocate financial resources more carefully before making investment decisions. They tend to evaluate business risks, estimate future returns, and prioritize investments that support long-term business sustainability. This result aligns with previous findings stating that financial behavior influences investment planning and business growth orientation (Kareem et al., 2023; Yamaguchi et al., 2025; Azis et al., 2025).

In the context of SMEs in Bali, financial behavior becomes increasingly important due to the competitive business environment and tourism-based economy. SMEs with better financial management practices are more capable of responding to market changes and technological developments. Consequently, financial behavior serves as a critical factor that strengthens business resilience and investment capability.

The findings also indicate that SMEs with good financial behavior are more confident in adopting digital technology and expanding business operations. Effective financial management encourages entrepreneurs to make calculated investment decisions rather than impulsive decisions. Therefore, strengthening financial behavior among SME actors can improve business competitiveness and long-term financial sustainability.

Direct Effect of Digital Financial Literacy on Investment Decision-Making

The analysis revealed that digital financial literacy has a positive but insignificant direct effect on investment decision-making. The path coefficient between DFL and IDM was 0.128, indicating a relatively weak direct relationship. This finding suggests that digital financial literacy alone may not directly influence SME investment decisions without the support of appropriate financial behavior. Similar findings were identified in studies highlighting that financial knowledge does not always directly translate into investment actions unless supported by behavioral factors (Bawalle et al., 2024; Abreu et al., 2025).

Although SME owners may understand digital financial concepts and services, they may still encounter difficulties in applying such knowledge to actual investment decisions. Investment activities often involve psychological considerations, business uncertainty, and risk perception, which may limit the direct influence of financial literacy. Therefore, practical financial behavior plays an important role in transforming financial knowledge into investment actions.

This finding also reflects the condition of SMEs in Bali, where many business actors are still in the adaptation stage of digital transformation. Some SMEs use digital financial services mainly for transaction convenience rather than for strategic financial planning and investment evaluation. As a result, digital financial literacy alone is insufficient to produce strong investment decision-making outcomes.

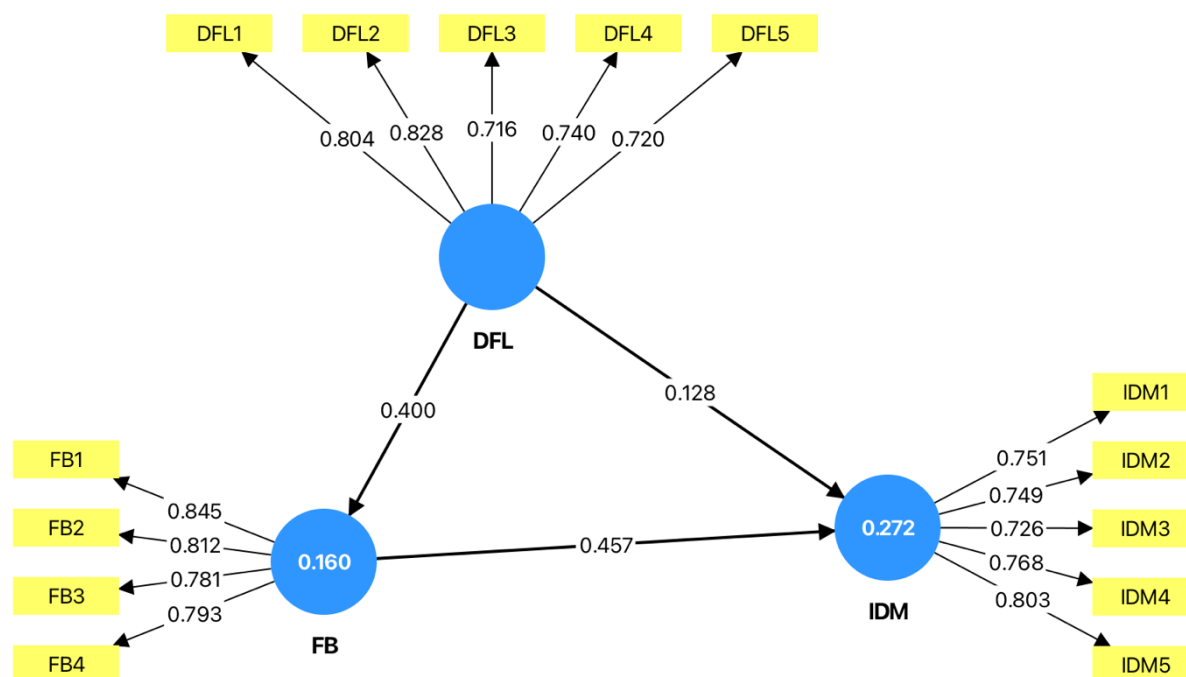


Figure 1. Structural Model Results

Bridging the Gap Between Digital Financial Literacy and Investment Decisions

One of the most important findings of this study is the insignificant direct relationship between Digital Financial Literacy and Investment Decision-Making among SMEs in Bali. Although SME owners increasingly utilize digital financial services such as mobile banking, QRIS, e-wallets, and online payment systems, the results indicate that digital financial knowledge alone does not automatically encourage strategic investment decisions. The path coefficient of 0.128 with a non-significant probability value suggests that the influence of digital financial literacy on investment decisions operates through more complex mechanisms than simple knowledge acquisition. This finding supports previous arguments that financial literacy provides the foundation for financial capability, but additional factors are required before knowledge can be transformed into investment actions (Kicova et al., 2025; Lusardi & Mitchell, 2014).

A possible explanation is that investment decision-making requires practical financial management skills beyond understanding digital financial services. SME owners may be familiar with digital payment platforms and online financial applications, yet investment decisions involve evaluating business risks, forecasting returns, allocating resources, and planning future growth strategies. These activities require the consistent application of financial knowledge in daily business operations. Consequently, knowledge without disciplined financial behavior may have limited influence on actual investment outcomes (Nogueira et al., 2025; Aristei & Gallo, 2021).

The characteristics of SMEs in Bali provide additional insight into this phenomenon. Most respondents were involved in culinary, retail, fashion, handicraft, and tourism-related businesses that increasingly depend on digital financial technology for operational efficiency. However, the adoption of digital financial services is often motivated by transaction convenience and customer preferences rather than strategic investment planning. As a result, many SMEs may possess adequate digital financial literacy while still lacking the financial management practices necessary to support long-term investment decisions. This condition explains why digital literacy alone was insufficient to generate a significant direct effect on investment decision-making (Mishra et al., 2024; Purnamasari et al., 2025).

These findings reinforce the argument that financial behavior serves as the crucial mechanism connecting digital financial literacy to investment outcomes. Rather than viewing digital financial literacy as a direct determinant of investment decisions, the results suggest that its influence becomes meaningful when translated into budgeting discipline, expenditure control, saving behavior, and financial planning practices. Therefore, SME development initiatives should focus not only on increasing digital financial knowledge but also on strengthening behavioral competencies that enable entrepreneurs to apply such knowledge effectively in business decision-making processes (Tandilino et al., 2025; Sobaih & Elshaer, 2023).

Mediating Role of Financial Behavior

The mediation analysis indicates that financial behavior partially mediates the relationship between digital financial literacy and investment decision-making. This finding demonstrates that digital financial literacy indirectly influences investment decisions through improved financial behavior. SME owners who possess higher levels of digital financial literacy are more likely to exhibit responsible financial management practices, which subsequently contribute to better investment decisions.

The mediating role of financial behavior confirms that knowledge alone is insufficient without practical implementation in daily financial activities. Financial literacy must be accompanied by budgeting discipline, expenditure control, and financial planning to produce effective investment outcomes. This finding supports the argument that financial behavior functions as a bridge between financial knowledge and financial decision-making (Sundarasan et al., 2025).

The result further implies that SME development programs should focus not only on improving financial literacy but also on strengthening financial behavior. Training related to budgeting, financial recording, and investment planning may help SMEs apply digital financial knowledge more effectively in business operations. In the context of Bali's digital economy, integrating financial literacy education with practical financial management skills can improve SME competitiveness and sustainability.

Table 3. Indirect Effect Analysis

Indirect Path	Coefficient	T-Statistic	P-Value	Result
DFL → FB → IDM	0.183	3.992	0.000	Supported

Model Evaluation and Predictive Relevance

The structural model evaluation showed acceptable model quality and predictive relevance. The R-square value for Financial Behavior was 0.160, indicating that Digital Financial Literacy explained 16.0% of the variance in Financial Behavior. Meanwhile, the R-square value for Investment Decision-Making was 0.272, meaning that Digital Financial Literacy and Financial Behavior jointly explained 27.2% of the variance in investment decision-making among SMEs.

The f-square analysis revealed that Digital Financial Literacy had a moderate effect on Financial Behavior with a value of 0.191. Financial Behavior also showed a moderate effect on Investment Decision-Making with a value of 0.241. However, the direct effect of Digital Financial Literacy on Investment Decision-Making was relatively weak with an f-square value of 0.019. These findings indicate that Financial Behavior plays a stronger role in influencing investment decisions compared to direct digital financial literacy.

The model fit evaluation also demonstrated acceptable results. The SRMR value of 0.080 indicated that the model achieved an acceptable level of fit. In addition, the NFI value of 0.797 showed that the model had relatively adequate predictive capability. Overall, the

structural model was considered sufficient to explain the relationships among digital financial literacy, financial behavior, and investment decision-making among SMEs in Bali.

Table 4. Model Evaluation Results

Measurement	Value	Interpretation
R ² FB	0.160	Weak-Moderate
R ² IDM	0.272	Moderate
f ² DFL → FB	0.191	Moderate Effect
f ² FB → IDM	0.241	Moderate Effect
f ² DFL → IDM	0.019	Weak Effect
SRMR	0.080	Acceptable Fit
NFI	0.797	Adequate Fit

CONCLUSIONS AND RECOMMENDATIONS

This study examined the influence of digital financial literacy on investment decision-making among SMEs in Bali, with financial behavior serving as a mediating variable. The findings revealed that digital financial literacy has a positive and significant effect on financial behavior. SME owners who possess better understanding and utilization of digital financial services tend to demonstrate more responsible financial management practices, including budgeting, expenditure control, and financial planning.

The results also showed that financial behavior positively and significantly affects investment decision-making. SMEs with better financial behavior are more capable of making rational and strategic investment decisions that support long-term business sustainability. In contrast, the direct effect of digital financial literacy on investment decision-making was found to be positive but insignificant, indicating that financial knowledge alone is insufficient to directly influence investment decisions without appropriate financial behavior.

Furthermore, the mediation analysis confirmed that financial behavior partially mediates the relationship between digital financial literacy and investment decision-making. This finding suggests that digital financial literacy contributes to better investment decisions indirectly through improved financial behavior. Therefore, practical financial management behavior plays an important role in transforming financial knowledge into effective business investment actions.

Overall, this study highlights the importance of strengthening both digital financial literacy and financial behavior among SMEs in Bali. The findings provide practical implications for policymakers, financial institutions, and SME development programs to design training and educational initiatives that improve digital financial capability and support sustainable investment decision-making among SME actors.

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