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# Sharia, Digital, and Financial Literacy in Action: Transforming Social Capital and Digital Finance into Micro-Enterprise Well-Being through Financial Behavior

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**Abstract:** The Indonesian digital economy has encouraged micro-business owners' use of Digital Financial Services (DFS). These services have been widely adopted, but the financial behavior (FB) and well-being (FWB) of these actors have not improved. This study analyzes how DFS and SC affect FWB, both directly and indirectly, on FB. Financial Literacy (FL), Sharia Financial Literacy (SFL), and Digital Financial Literacy (DFL) moderate the link between DFS and SC with FB. The quantitative survey study targets 300 micro-entrepreneurs in West Java. Data was obtained using structured questionnaires and analyzed using SEM-PLS. Both DFS and SC have a positive and dramatic effect on FB and FWB. FB also boosts FWB and mediates DFS–FWB and SC–FWB interactions. Moreover, FL, SFL, and DFL amplify the impact of DFS on FB. In the association between SC and FB, FL and SFL function as important moderators, whereas DFL does not moderate this association. The findings indicate that enhancing the financial well-being of micro-entrepreneurs is affected by access to digital financial services and social resources, as well as the quality of their financial behavior and their level of literacy.

**Keywords:** digital financial services; financial behavior; financial well-being; financial literacy; micro-entrepreneurs.

## Introduction

MSME has been widely acknowledged as the engine of growth, providing massive employment and driving both innovation and inclusive economic growth. It plays an important role in the Indonesian economy, accounting for more than 61% of the gross domestic product and absorbing more than 97% of the workforce (Aprilia et al., 2025; Chatra et al., 2023). The high potential of the digital economy, particularly e-commerce, presents a vast business opportunity for small and micro businesses. Data analysis projects the estimated value of Indonesia's digital economy to reach USD 99 billion in 2025, a 14% growth from 2024. By 2030, Indonesia's digital economy is projected to reach USD 180-340 billion. The GMV value of e-commerce transactions reached USD 71 billion in 2025, a 14% growth from 2024. This potential presents an opportunity for micro and small businesses to join the digital platform ecosystem. Other growing digital economy sectors include online travel, transportation, and food services, as well as online media services. A digital platform ecosystem can be a catalyst for entrepreneurs to develop their businesses and increase their economic capacity. Indonesia leads in terms of growth in digital payments. However, it lags behind neighboring countries like Malaysia (US$14 billion) and Thailand (US$17 billion) in terms of book value of online loans.

This gap can be closed by directing financing to micro and small businesses (Google & TEMASEK, n.d.). (Hodula, 2022) argues that digital credit platforms can complement traditional bank credit, and, (Demirguc-Kunt et al., 2022) by reducing the limited access to credit for certain groups that banks cannot yet meet. MSMEs face various challenges in digital transformation, such as access to financing, connectivity, financial literacy (FI), competitiveness, the dominance of informal credit, productivity, and cultural norms that prioritize community solidarity over individual financial planning (Anakpo et al., 2023; Aziz & Naima, 2021; INDEF, 2024). This problem becomes even more complex when unplanned financial behaviors, such as excessive consumption, reliance on informal lending services, and minimal savings habits, ultimately reduce financial well-being (Vieira et al., 2023; J. J. Xiao, 2016). The main focus of this study is to discuss the gap between micro-enterprise FL and FB, as well as SC, in the use of DFS and its impact on micro-enterprise FWB. There are differences in the results between the influence of financial technology and financial literacy variables on financial inclusion and social capital factors (Mas & Paoloni, 2020).

Table 1 outlines the primary challenges faced by micro-enterprises, drawing from various sources. The growth trend of the digital economy is closely linked to rising internet penetration and the Digital Society Index (IMDI) in Indonesia. At the provincial level, West Java ranked eighth with an 86.52% penetration rate in 2025; however, high internet access does not automatically translate into a commensurate level of digital literacy, inclusion, and quality of technology usage among the public—particularly among micro and small entrepreneurs. A study in Bangladesh indicates that digital financial services cannot achieve optimal performance without the support of digital connectivity, financial literacy, and social support within the community (Aziz & Naima, 2021). The high potential of the digital economy, especially e-commerce, represents a significant business opportunity for small and micro businesses. The phenomenon in West Java shows the opposite, with data from the Indonesian Central Statistics Agency (BPS) (2025) showing a declining trend in the number of micro and small businesses. This is because MSMEs face various challenges in digital transformation, such as access to financing, marketing, competitiveness, and productivity (INDEF, 2024).

**Table 1 Mapping of Micro Business Problems**

| No | Problems | Empirical Evidence | Source |
|---|---|---|---|
| 1 | Entrepreneurs/Self-employed have low financial literacy. | Financial literacy reached 73.60%, still far from the target of 90%. | OJK, 2025 |
| 2 | Technology adoption in West Java is uneven. | The access and adoption pillar for digital technology is only 65.65%. 50% is still below average. | IMDI, 2025 |
| 3 | Low digital financial literacy | The digital financial pillar is still low (51.24%). | IMDI, 2025 |
| 4 | Low Islamic financial literacy. | Sharia financial literacy (43.22%) is still far below conventional financial literacy. | OJK, 2025 |
| 5 | Weak financial behavior. | Unstructured financial system, poor financial planning, inability to do digital bookkeeping, lack of cost control, weak risk management. | (Afrizal et al., 2025; Ali et al., 2025; Suminah et al., 2022) |
| 6 | Vulnerable financial well-being. | Micro businesses are not yet able to face financial problems, dependence on unstable business income. | (Agyei et al., 2019; Pratama et al., 2026) |
| 7 | Sustainability of West Java MSMEs. | A declining trend in micro and small businesses. High income volatility and limited capital reserves. | West Java BPS (2024); |

Research results show that MSME problems are not only structural but also qualitative. Knowledge of digital financial services, coupled with a lack of financial self-efficacy, does not automatically translate into prudent financial behavior, and without disciplined financial practices, sustainable financial well-being remains a distant reality. This problem is further complicated when unplanned financial behaviors, such as excessive consumption, reliance on informal lending services, and minimal savings habits, ultimately reduce financial well-being (Vieira et al., 2023; J. J. Xiao, 2016). Financial literacy is crucial for improving MSME performance through financial management, financial statement analysis, and investment strategies by optimizing existing resources (F. Rahman et al., 2026; Zunairoh & Wijaya, 2024). Sharia financial literacy remains low when viewed using sustainability methods, reaching only 43.22%, generally still far below conventional financial literacy. Previous studies have demonstrated the moderating role of Islamic financial literacy (Afdawaiza et al., 2025) emphasizing its importance in adopting Islamic financial products and strengthening psychological resilience; (Dinc et al., 2021) finding that Islamic financial literacy promotes ethical behavior and financial well-being; and (Wijaya et al., 2024) demonstrating that Islamic financial literacy helps manage social and psychological stress in financial decision-making, particularly regarding Islamic investments.

A broader socio-economic perspective views inclusive finance as contributing to the resilience, competitiveness, and long-term growth of MSMEs. However, persistent structural and institutional barriers, such as limited access to digital infrastructure, regulatory gaps, and inequality in educational attainment, indicate that the path to inclusive digital finance remains an evolving process. MSMEs face structural complexities, including limited access to capital, low digital financial literacy, and low financial self-efficacy in managing their businesses (*Global Competence Framework*, n.d.; Lestari et al., 2025a). These challenges are compounded in the digital era, where the ability to integrate digital financial technology has become a key competitive factor that cannot be ignored (Pratama et al., 2026). Previous studies have confirmed that digital financial literacy improves technical capacity, while financial self-efficacy strengthens psychological resilience in the face of uncertainty (Damian et al., 2020). Studies in developing countries show that integrating the two significantly improves financial practices, including budget planning, use of digital financial products, and avoidance of unproductive debt (Marcelin et al., 2022).

Previous research consistently shows that digital financial services (DFS) and social capital play a significant role in shaping the financial behavior of MSMEs. Utilizing digital financial services improves transaction convenience, financing access, operational efficiency, and the quality of financial decision-making (Allen et al., 2022; Frimpong et al., 2022; Hendiarto et al., 2021; Prahiawan et al., 2021). Furthermore, social capital, through networks, trust, and social support, encourages the adoption of financial technology while strengthening better financial management behaviors (Asmar et al., 2020; Aziz & Naima, 2021; Purnamasari et al., 2025; Talip & Wasiuzzaman, 2024). These findings indicate that the higher the utilization of digital financial services and the stronger the social capital possessed by business actors, the better the financial behavior that is formed.

Various studies have shown that financial behavior is a key mechanism for improving financial well-being. MSMEs that implement disciplined budgeting, financial record-keeping, expense control, and investment planning tend to have more stable and sustainable financial conditions (Bene et al., 2024; Gafoor & Amilan, 2024; Ratnawati et al., 2022; Sajuyigbe et al., 2024). Furthermore, financial behavior has been shown to mediate the relationship between financial literacy, digital financial services, and financial well-being, suggesting that the benefits of new knowledge and technology will have an optimal impact when translated into concrete financial behavior (Dzogbenuku et al., 2022; Hidayat-ur-Rehman, 2025; Pratama et al., 2026; H. Rahman, 2020).

Previous research also shows that financial literacy, Islamic financial literacy, and digital financial literacy play a role in strengthening the relationship between digital financial services and social capital on financial behavior. Individuals with higher levels of literacy are able to understand the benefits, risks, and use of digital financial services more effectively, resulting in more rational financial decisions and an impact on improved financial well-being (Andriansyah et al., 2025; Choung et al., 2023; Kakinuma, 2022; Lyons & Kass-Hanna, 2021). Similar findings were also obtained in the context of Islamic finance, where Islamic financial literacy strengthens the utilization of Islamic fintech, financial inclusion, and the sustainability of micro-enterprises (Abdallah et al., 2025; Arzety & Sukmaningrum, 2024; Djuwita & Yusuf, 2018; Masrizal et al., 2025). Thus, various dimensions of financial literacy not only increase business actors' knowledge but also strengthen the effectiveness of financial behavior in achieving financial well-being.

Considering the existing empirical evidence, this study integrates Digital Financial Services, Social Capital, Financial Behavior, Financial Literacy, Sharia Financial Literacy, and Digital Financial Literacy into a comprehensive framework to explain the formation of financial well-being among micro-enterprises. Unlike previous studies that mainly examined these variables separately, this study highlights financial behavior as the central behavioral mechanism while positioning the three dimensions of financial literacy as complementary moderators. The findings are expected to enrich the financial well-being literature by demonstrating that sustainable financial well-being is shaped through the interaction of digital financial access, social resources, financial capability, and actual financial behavior, thereby providing practical implications for policymakers and stakeholders in strengthening the resilience and sustainability of micro-enterprises in the digital era.

## Method

This study uses a causal research design and mediation moderation analysis to investigate how LK, LKS, and DFL moderating in the relationship between DFS, SC and the FB. And also FB mediating the relationship between DFS, SC and the FWB of micro enterprise owners. Data collection was conducted through a combination of online and offline distributions over 3 months. A total of 300 micro enterprse owners participated in the online survey facilitated by google form. These business owners are operating in West Java. The researcher shared a 5-point Likert Scale survey instrument. The study instrument is a structured questionnaire adapted from an internationally validated scale.

**Table 3 Research Variables**

| Variable Types | Variables | Indicators |
|---|---|---|
| Main Endogenous | Financial Well-Being<br>(Kamble et al., 2024; Lone & Bhat, 2024; Lyons & Kass-Hanna, 2021; Mahmoud et al., 2022; Tahir, 2026) | FWB<br>(3 indicators) |
| Endogenous<br>(Mediator) | Financial Behavior<br>(Widagdo & Sa'diyah, 2023) | FB<br>(3 indicators) |
| Exogenous | Digital Financial Services<br>(Gregersen-Hermans, 2021; Huang & Lan, 2025; Setiawan et al., 2025) | DFS<br>(4 indicators) |
| | Social Capital<br>(Aziz & Naima, 2021) | SC<br>(5 indicators) |
| Exogenous<br>(Moderator) | Financial Literacy<br>(Widagdo & Sa'diyah, 2023) | IN<br>(3 indicators) |
| | Digital Financial Literacy<br>(Widagdo & Sa'diyah, 2023) | DFL<br>(5 indicators) |
| | Sharia Financial Literacy<br>(Rohmania et al., 2023) | LKS<br>(4 indicators) |

Data were analyzed via PLS-SEM, which is suitable for models with high complexity and a nonnormal data distribution (F. Hair Jr et al., 2014). The analysis was conducted in two stages, namely, (1) evaluation of the measurement model through reliability, convergent validity, and discriminant validity tests and (2) evaluation of the structural model by examining path coefficients, $R^2$ values, $Q^2$ values, and effect sizes ($f^2$). Bootstrapping with 5,000 subsamples was used to test the statistical significance of direct and indirect effects.

**Research Results**

This subsection systematically presents the results of the statistical investigation conducted using the PLS-SEM method. The findings are organized into several distinct sections, including respondent profile information and five-stage SEM-PLS analysis procedure: comprising conceptual model development, PLS algorithm analysis, bootstrapping, path diagram construction, and comprehensive model evaluation. To enhance audience comprehension, infographics are provided in sequence, with smooth transitions between sections, adhering to the standards of reputable article presentation.

*1. Profile Respondents*

The survey included 300 micro-enterprise owners in West Java. Most respondents were married (75.3%) and belonged to the productive age groups of 25–34 years (39.3%) and 35–44 years (36.7%). Regarding educational attainment, nearly half of the respondents had completed senior high school or vocational high school (48.0%), followed by bachelor's degree holders (15.0%). In terms of business characteristics, 36.0% operated in the trade sector, 23.0% in the culinary sector, and 20.3% in the service sector. Most businesses had been operating for 1–3 years (44.7%), generated a monthly turnover of IDR 5–15 million (52.3%), and 78.0% were managed without permanent employees. These characteristics indicate that the sample adequately represents the typical profile of micro-enterprises in the study area and provides a reliable basis for subsequent empirical analysis.

**Table 3. Respondent Characteristics**

| Characteristics | Category | Frequency (People) | Percentage (%) |
|---|---|---|---|
| Educational level | SD | 26 | 8,7 |
| | JUNIOR HIGH SCHOOL | 42 | 14 |
| | High School/Vocational School | 144 | 48 |
| | Diploma | 42 | 14 |
| | Undergraduate/DIV | 45 | 15 |
| | Postgraduate | 1 | 0,3 |
| Age Range | < 25 years | 8 | 2,7 |
| | 25–34 years | 118 | 39,3 |
| | 35–44 years | 110 | 36,7 |
| | 45–54 years | 63 | 21 |
| | ≥ 55 years | 1 | 0,3 |
| Business Sector | Fashion | 1 | 0,3 |
| | Agriculture/Plantation | 25 | 8,3 |
| | Production/Manufacturing | 36 | 12 |
| | Service | 61 | 20,3 |
| | Culinary | 69 | 23 |
| | Trade | 108 | 36 |

The results indicate that most respondents owned a bank account (83.7%), primarily used mobile banking (35.3%) and QRIS (24.7%) as their digital financial services, and conducted digital transactions more than 10 times per week (62.0%), reflecting a relatively high level of digital financial service adoption among micro-enterprise owners.

**Table 4. Characteristics of Respondents' Transactions**

| Characteristics | Category | Frequency (person) | Presentation (%) |
|---|---|---|---|
| Bank Account Ownership | No | 49 | 16,3% |
| | Of | 251 | 83,7% |
| The Most Frequently Used Types of Digital Financial Services | E-wallet | 52 | 17,3% |
| | Internet Banking | 67 | 22,3% |
| | Mobile Banking | 106 | 35,3% |
| | Online Loans | 1 | 0,3% |
| | Pinch | 74 | 24,7% |
| Frequency of Digital Transactions per Week | Never | 24 | 8,0% |
| | 1-5 times | 33 | 11,0% |
| | 6-10 times | 57 | 19,0% |
| | >10 times | 186 | 62,0% |

2. *SEM-PLS Analysis*
a. *Construct validity and reliability*

Based on Table 5, the reliability and convergent validity tests indicate that all constructs meet the required criteria. The Composite Reliability, Cronbach's Alpha, and AVE values are all above the minimum thresholds, indicating that each variable has good internal consistency and accurately represents the construct being measured.

**Table 5. Output of Reliability and Convergent Validity Test Values**

| Variables | Mark | | |
|---|---|---|---|
| | ***Composite reliability*** | ***Cronbach's alpha*** | ***Composite reliability*** |
| Financial Well-Being (FWB) | 0,934 | Financial Well-Being (FWB) | 0,934 |
| Financial Behavior (FB) | 0,927 | Financial Behavior (FB) | 0,927 |
| Digital Financial Services (DFS) | 0,933 | Digital Financial Services (DFS) | 0,933 |
| Social Capital (SC) | 0,948 | Social Capital (SC) | 0,948 |
| Financial Literacy (LK) | 0,912 | Financial Literacy (LK) | 0,912 |
| Sharia Financial Literacy (LKS) | 0,922 | Sharia Financial Literacy (LKS) | 0,922 |
| Digital Financial Literacy | 0,934 | Digital Financial Literacy | 0,934 |

Table 6 shows that each indicator has the highest loading on its respective construct relative to the other constructs, indicating that discriminant validity has been met.

**Table 6. Discriminant Validity Test**

| Indicator | FWB | FB | DFS | SC | FL | LKS | DFL |
|---|---|---|---|---|---|---|---|
| FWB1 | 0,910 | 0,730 | 0,439 | 0,565 | 0,271 | 0,352 | 0,241 |
| FWB2 | 0,914 | 0,738 | 0,471 | 0,540 | 0,223 | 0,355 | 0,274 |
| FWB3 | 0,902 | 0,706 | 0,419 | 0,510 | 0,216 | 0,363 | 0,228 |
| FB1 | 0,743 | 0,907 | 0,358 | 0,406 | 0,177 | 0,330 | 0,190 |
| FB2 | 0,707 | 0,892 | 0,300 | 0,415 | 0,188 | 0,295 | 0,182 |
| FB3 | 0,698 | 0,897 | 0,285 | 0,372 | 0,165 | 0,264 | 0,184 |
| DFS1 | 0,365 | 0,278 | 0,863 | 0,319 | 0,197 | 0,285 | 0,271 |
| DFS2 | 0,437 | 0,326 | 0,892 | 0,355 | 0,281 | 0,298 | 0,285 |
| DFS3 | 0,490 | 0,337 | 0,916 | 0,384 | 0,230 | 0,348 | 0,300 |
| DFS4 | 0,415 | 0,289 | 0,854 | 0,332 | 0,213 | 0,343 | 0,279 |
| SC1 | 0,532 | 0,397 | 0,432 | 0,901 | 0,330 | 0,496 | 0,407 |
| SC2 | 0,541 | 0,409 | 0,309 | 0,885 | 0,253 | 0,432 | 0,357 |
| SC3 | 0,502 | 0,382 | 0,319 | 0,857 | 0,301 | 0,382 | 0,365 |
| SC4 | 0,549 | 0,398 | 0,351 | 0,915 | 0,347 | 0,446 | 0,400 |
| SC5 | 0,499 | 0,374 | 0,343 | 0,869 | 0,327 | 0,479 | 0,357 |
| FL1 | 0,211 | 0,151 | 0,181 | 0,301 | 0,868 | 0,193 | 0,172 |
| FL2 | 0,236 | 0,190 | 0,245 | 0,312 | 0,889 | 0,196 | 0,206 |
| FL3 | 0,238 | 0,173 | 0,261 | 0,316 | 0,885 | 0,212 | 0,209 |
| LKS1 | 0,328 | 0,296 | 0,324 | 0,399 | 0,197 | 0,844 | 0,196 |
| LKS2 | 0,352 | 0,277 | 0,322 | 0,457 | 0,207 | 0,894 | 0,234 |
| LKS3 | 0,346 | 0,288 | 0,332 | 0,485 | 0,208 | 0,859 | 0,208 |
| LKS4 | 0,329 | 0,280 | 0,273 | 0,404 | 0,175 | 0,860 | 0,215 |
| DFL1 | 0,199 | 0,151 | 0,293 | 0,335 | 0,195 | 0,198 | 0,850 |
| DFL2 | 0,227 | 0,151 | 0,287 | 0,380 | 0,207 | 0,249 | 0,838 |
| DFL3 | 0,260 | 0,229 | 0,250 | 0,367 | 0,183 | 0,190 | 0,896 |
| DFL4 | 0,251 | 0,190 | 0,314 | 0,370 | 0,176 | 0,215 | 0,874 |
| DFL5 | 0,226 | 0,138 | 0,251 | 0,390 | 0,216 | 0,226 | 0,842 |

**Table 7. Discriminant Validity of Moderator Variables**

| Indikator | DFL X DFS | DFL X SC | LKS X DFS | LKS X SC | FL X DFL | FL X SC |
|---|---|---|---|---|---|---|
| DFL X DFS | 1,000 | 0,527 | 0,317 | 0,137 | 0,323 | 0,206 |
| DFL X SC | 0,527 | 1,000 | 0,161 | 0,423 | 0,188 | 0,206 |
| LKS X DFS | 0,317 | 0,161 | 1,000 | 0,383 | 0,351 | 0,176 |
| LKS X SC | 0,137 | 0,423 | 0,383 | 1,000 | 0,139 | 0,302 |
| FL X DFL | 0,323 | 0,188 | 0,351 | 0,139 | 1,000 | 0,487 |
| FL X SC | 0,206 | 0,206 | 0,176 | 0,302 | 0,487 | 1,000 |

The interaction constructs on the moderator variables have clear differences between constructs, so that the moderating effect formed can be measured precisely without any overlap as in Table 7. These results are in line with previous research which states that the measurement model has met the criteria of factor loading above 0.70, Composite Reliability of 0.88–0.93, AVE of 0.62–0.74, and good discriminant validity, so that the research instrument is considered reliable and valid for use in structural model analysis.

*R-Square and Q-Square Tests*

**Table. 4 Output Uji R-Square dan Q-Square**

| Variables | *R-square* | *R-square adjusted* | $Q^2$ Predict |
|---|---|---|---|
| Financial Well-Being (FWB) | 0,731 | 0,728 | 0,583 |
| Financial Behavior (FB) | 0,669 | 0,656 | 0,515 |

Based on Table 8, the R-Square test results show that the model is able to explain 73.1% of the variation in Financial Well-Being (FWB) and 66.9% of the variation in Financial Behavior (FB), thus having strong explanatory power. Positive $Q^2$ Predicted values for both variables (0.583 and 0.515) indicate that the model has good predictive ability. The adjusted R-square value, which is close to the R-square, also indicates that the model remains stable. Thus, the constructed model has good ability to explain and predict the relationship between variables. These results are in line with previous research which states that a high $R^2$ value and a positive $Q^2$ indicate a model has strong explanatory power and predictive relevance.

*3. Path Coefficient Test*

Figure 2 displays the path coefficient results from the structural model which is the basis for testing all research hypotheses, including direct influence, mediation effect, and moderation effect between variables.

**Figure I. Path Coefficient Test**

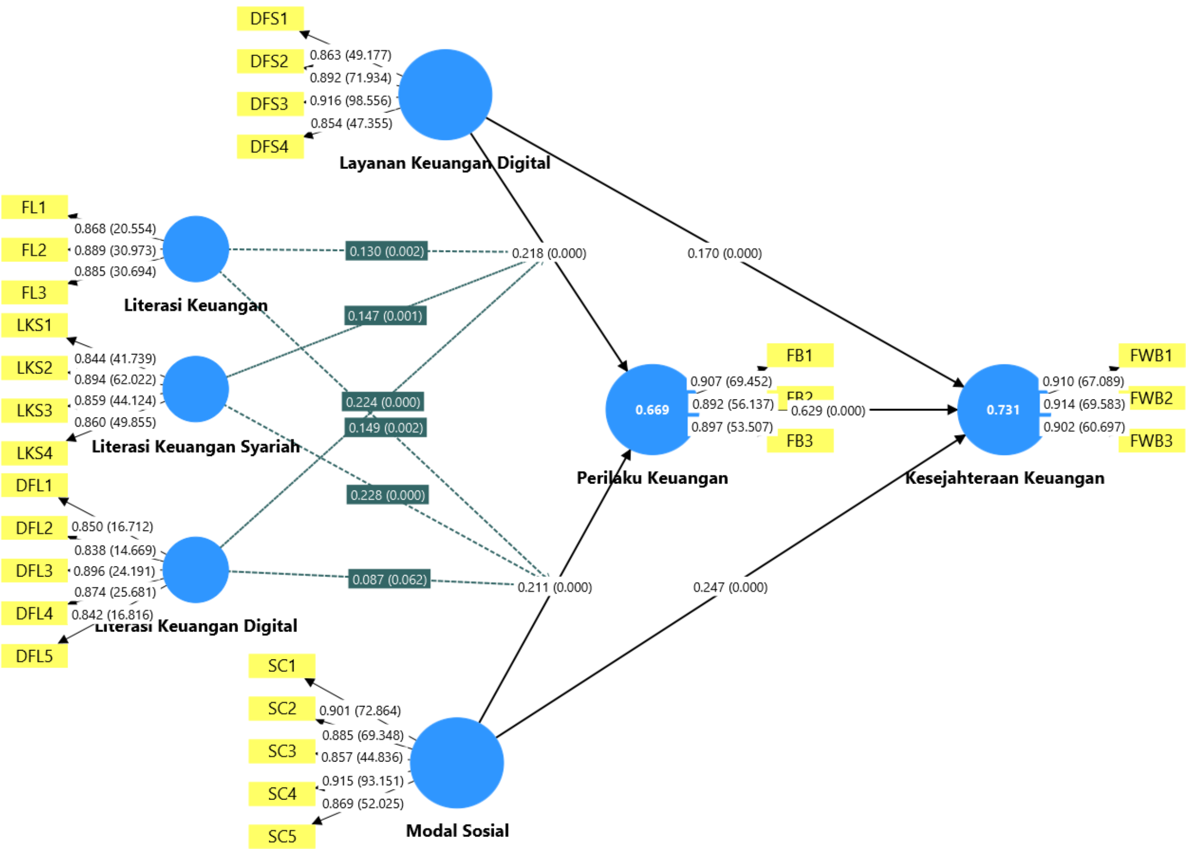

**Table 5. Hypothesis Testing**

| **Hypothesis** | **Path** | **Path Coefficient** | ***T-statistics*** | ***P-values*** | ***Decision*** |
|---|---|---|---|---|---|
| H1 | DFS → FWB | 0,170 | 4,407 | 0,000 | Supported |
| H2 | DFS → FB | 0,218 | 5,079 | 0,000 | Supported |
| H3a | FB → FWB | 0,629 | 18,039 | 0,000 | Supported |
| H3b | DFS→ FB → FWB | 0,137 | 4,863 | 0,000 | Supported |
| H3c | SC → FB → FWB | 0,133 | 4,195 | 0,000 | Supported |
| H4 | SC → FWB | 0,247 | 7,290 | 0,000 | Supported |
| H5 | SC → FB | 0,211 | 4,235 | 0,000 | Supported |
| H6a | FL x DFS → FB | 0,130 | 3,063 | 0,002 | Supported |
| H6b | FL x SC → FB | 0,149 | 3,157 | 0,002 | Supported |
| H7a | LKS x DFS → FB | 0,147 | 3,432 | 0,001 | Supported |
| H7b | LKS x SC → FB | 0,228 | 5,169 | 0,000 | Supported |
| H8a | DFL x DFS → FB | 0,224 | 4,877 | 0,000 | Supported |
| H8b | DFL x SC → FB | 0,087 | 1,874 | 0,061 | Unsupported |

Based on Table 10, Digital Financial Services (DFS) has a positive and significant effect on Financial Behavior (FB) ($\beta = 0.218; p < 0.001$) and Financial Well-being (FWB) ($\beta = 0.170; p < 0.001$), and its effect on FWB was also significantly mediated by FB ($\beta = 0.137; p < 0.001$). Social Capital (SC) shows the same pattern, namely a positive effect on FB ($\beta = 0.211; p < 0.001$) give FWB ($\beta = 0.247; p < 0.001$), with the indirect effect through FB also significant ($\beta = 0.133; p < 0.001$), while FB itself has the strongest direct influence on FWB ($\beta = 0.629; p < 0.001$). Furthermore, Financial Literacy (FLC), Sharia Financial Literacy (SLC), and Digital Financial Literacy (DFL) were proven to strengthen the relationship between DFS and SC on FB, except for the moderation of FLC on the SC → FB relationship which was not significant ($\beta = 0.087; p = 0.061$), thus emphasizing that FB is the main mediator, while the three forms of literacy act as moderators that strengthen most of the relationships in the model.

**Discussion**

1. *The Impact of Digital Financial Services on the Financial Well-being of Micro-Enterprises (H1)*

The research results show that digital financial services have a positive impact on the financial well-being of micro-entrepreneurs. Utilizing services such as mobile banking, digital wallets, and QRIS simplifies transactions, accelerates payment receipts, and increases access to formal financial services, thus helping entrepreneurs manage cash flow more efficiently. This creates more planned financial management and supports improved business financial well-being. These findings align with those of (Liu et al., 2022; Pratama et al., 2026; Rabhan & Almezeini, 2025) who state that digital financial services improve financial management efficiency and business well-being. Similar findings are also presented by (Guo et al., 2025; Khairani & Silaban, 2026; Lubawa & Litt, 2025) who show that digitalization expands access to financing, increases revenue, and strengthens business sustainability. Conversely, (Gupta & Agarwal, 2023) explain that the benefits of digital financial services can vary depending on the characteristics of entrepreneurs. Thus, improving financial well-being is not only determined by the availability of technology, but also by the ability of business actors to utilize it optimally.

2. *The Influence of Digital Financial Services on the Financial Behavior of Micro-Business Owners (H2)*

Research results show that digital financial services can encourage better financial behavior among micro-business owners. Easy access to various digital services helps business owners record transactions, control expenses, and monitor financial conditions more regularly. The use of financial technology also improves habits in making more planned financial decisions, thus supporting more effective business management. These findings are supported by (Li, 2025; Sandberg & Håkansson, 2020; Timur et al., 2025) who explain that digitalization improves the quality of business management and encourages more rational financial behavior. Similar results were also found by

(Karankoti et al., 2026; Pak et al., 2026), and Showkat et al. (2025), who showed that digital financial services help improve financial discipline, savings habits, and economic empowerment among business owners. However, (Purba et al., 2021) emphasized that changes in financial behavior are still influenced by literacy levels, perceived ease of use, and the security of technology use.

*3. The Influence of Financial Behavior on the Financial Welfare of Micro Enterprises (H3a)*

The research results show that financial behavior plays a crucial role in improving the financial well-being of micro-entrepreneurs. Entrepreneurs who maintain a habit of financial record-keeping, separate personal and business finances, control expenses, and set aside funds for savings or emergencies tend to have more stable financial conditions. This finding suggests that financial well-being is influenced not only by income but also by the ability to consistently manage financial resources. These findings align with those of (Pratama et al., 2026; Salazar et al., 2024; Widagdo & Sa'diyah, 2023) who state that financial behavior is a key factor in shaping financial well-being. Similar findings are also supported by (Mulyani et al., 2024) and (Mpaata et al., 2023) who explain that financial behavior improves financial resilience and business sustainability. Conversely, (Agustina et al., 2022) found that the quality of MSMEs' financial behavior is still influenced by low literacy and limited access to financial information. Therefore, developing disciplined financial behavior is key to improving the financial well-being of micro-entrepreneurs.

*4. The Influence of Financial Behavior Mediation on the Relationship between Digital Financial Services and the Financial Welfare of Micro-Enterprises (H3b)*

The results of the study indicate that financial behavior mediates the relationship between digital financial services and the financial well-being of micro-entrepreneurs. This finding suggests that the benefits of digital financial services stem not only from ease of transactions but also from changes in financial management behavior after the technology is utilized sustainably. The use of digital services encourages entrepreneurs to be more disciplined in managing cash flow, controlling expenses, and planning business needs, thus impacting financial well-being. This finding is consistent with (Esomar et al., 2025; Khairani & Silaban, 2026; S. Sharma, 2022) who explain that digitalization improves well-being through the formation of better financial behavior. This opinion is reinforced by (Pratama et al., 2026) dan (Purnamasari et al., 2025) yang menyatakan bahwa kesejahteraan keuangan lebih ditentukan oleh praktik pengelolaan keuangan daripada sekadar penggunaan teknologi. Sebaliknya, (Han & Ko, 2025) and (Ahmad et al., 2026) indicate that the benefits of digital services can be less than optimal if user readiness and capabilities are still low. Thus, financial behavior becomes an important mechanism that links the use of digital financial services with increased financial well-being.

*5. The Mediation Effect of Financial Behavior on the Relationship between Social Capital and the Financial Welfare of Micro-Enterprises (H3c)*

The results of the study indicate that financial behavior mediates the relationship between social capital and the financial well-being of micro-entrepreneurs. Social relationships built through trust, networking, and collaboration provide access to information, experience, and support that encourage the formation of better financial management habits. These behavioral changes ultimately contribute to improved financial conditions and business well-being. This finding is supported by Jiang et al. (2024), (J. Sharma, 2025; Young et al., 2024) who state that social capital improves well-being through the formation of positive financial behavior. Similar results are also stated by (Arıkan et al., 2025; Jia et al., 2025; Rana & Singh, 2025; Zhang et al., 2024) who explain that the benefits of social capital work more through increasing individual capacity than through direct influence. Thus, social capital will provide greater economic benefits when manifested in disciplined and responsible financial behavior.

*6. The Influence of Social Capital on the Financial Welfare of Micro Enterprises (H4)*

The research findings indicate that social capital positively impacts the financial well-being of micro-entrepreneurs. Trust, social networks, and relationships among entrepreneurs facilitate access to information, business opportunities, and access to various resources that support business sustainability. Strong social relationships also help entrepreneurs face various business challenges, enabling them to maintain better financial health. These findings align with those of (Analia et al., 2020; Laila et al., 2025; Ojong & Simba, 2019) who state that social capital improves business performance and financial well-being by strengthening networks and relationships among entrepreneurs. These findings are supported by (Hussain, 2025; Mdoe et al., 2018; Wasiuzzaman,

2019) who explain that social capital expands access to financing and economic resources. Conversely, (Alexandra & Kassim, 2013; Madhumithaa et al., 2023) suggest that the benefits of social capital are further enhanced when supported by digital and managerial capabilities. Therefore, social capital is a strategic asset that supports improving the financial welfare of micro-entrepreneurs.

*7. The Influence of Social Capital on the Financial Behavior of Micro Enterprises (H5)*

The research results show that social capital has a positive effect on the financial behavior of micro-entrepreneurs. Trust, norms, and social networks serve as learning platforms that help entrepreneurs obtain information on financial management, access to financing, and strategies for running their businesses more effectively. Continuous interactions foster more disciplined and responsible financial habits. These findings are supported by (Analia et al., 2020; Mpaata et al., 2023) who explain that social capital contributes to the formation of financial behavior through the exchange of information and social support. Similar findings were also presented by (Rodríguez-de-Dios et al., 2018) who stated that social capital improves business adaptability and decision-making. However, (Mpaata et al., 2023) indicate that changes in financial behavior still require financial literacy support to optimally utilize the benefits of social capital. Therefore, social capital is a crucial foundation for developing healthy financial behavior and supporting the sustainability of micro-enterprises.

*8. The Moderating Effect of Financial Literacy on the Relationship between Digital Financial Services and the Financial Behavior of Micro-Business Owners (H6a)*

The research results show that financial literacy strengthens the influence of digital financial services on the financial behavior of micro-business owners. This finding suggests that utilizing digital financial services will provide greater benefits when business owners have an adequate understanding of financial management. Knowledge of financial planning, cash flow management, and financial decision-making helps business owners utilize various digital services more effectively and responsibly. This condition encourages the development of more disciplined financial behavior in managing their businesses. This finding aligns with (Abdallah et al., 2025; Han & Ko, 2025; Mpaata et al., 2023) who stated that financial literacy improves an individual's ability to utilize digital financial services to develop better financial behavior. Similar results were also presented by (Talip & Wasiuzzaman, 2024; Zunairoh & Wijaya, 2024) who emphasized that the success of digital financial transformation is strongly influenced by the user's level of financial knowledge. Conversely, (Angeles, 2022) showed that the use of digital financial services does not always result in behavioral change if it is not supported by adequate financial literacy. Thus, financial literacy is an important factor that strengthens the effectiveness of digital financial services in shaping the financial behavior of micro-entrepreneurs.

*9. The Moderating Effect of Financial Literacy on the Relationship between Social Capital and the Financial Behavior of Micro-Business Owners (H6b)*

The research findings show that financial literacy strengthens the relationship between social capital and the financial behavior of micro-business owners. This finding indicates that social networks, trust, and relationships between business actors will provide greater benefits when supported by the ability to understand and manage financial information. Business actors with good financial literacy tend to be better able to utilize information obtained from their social environment as a basis for making more rational and long-term financial decisions. This finding is supported by (Musah & Adenutsi, 2025; Talip & Wasiuzzaman, 2024) who explain that financial literacy increases the effectiveness of social capital in shaping financial behavior and business sustainability. However, (Ulukan et al., 2022; Yulianti et al., 2024) indicate that the influence of the social environment is still influenced by cultural and emotional factors that can affect the quality of financial decisions. Therefore, financial literacy plays a role as a mechanism that helps business actors utilize social capital more productively, thereby developing healthier financial behavior.

*10. The Moderating Effect of Islamic Financial Literacy on the Relationship between Digital Financial Services and the Financial Behavior of Micro-Business Owners (H7a)*

The research findings demonstrate that Islamic financial literacy strengthens the influence of digital financial services on the financial behavior of micro-business owners. These findings demonstrate that understanding Islamic financial principles helps business owners utilize digital financial services more wisely, transparently, and in accordance with Islamic values. This understanding not only improves the ability to select appropriate financial services but also encourages more disciplined and responsible business financial management. These findings are consistent with those of (Barus et al., 2023; Marla et al., 2023; Sulha et al., 2025) who stated that Islamic financial literacy contributes to increased utilization of Islamic financial services and financial inclusion. These findings are reinforced by (Choiruddin et al., 2025; Lestari et al., 2025b; Satria et al., 2023) who explain that Islamic financial understanding encourages better financial decision-making and enhances business sustainability. Thus, Islamic financial literacy acts as a reinforcing factor that optimizes the benefits of digital financial services on the financial behavior of micro-business owners.

*11. The Moderating Effect of Islamic Financial Literacy on the Relationship between Social Capital and the Financial Behavior of Micro-Business Owners (H7b)*

The results of the study indicate that Islamic financial literacy strengthens the influence of social capital on the financial behavior of micro-business owners. This finding indicates that an understanding of Islamic principles helps entrepreneurs utilize social relationships as a source of information, learning, and support in managing business finances. Islamic values such as trustworthiness, transparency, and responsibility also strengthen the process of developing better financial behavior. This finding aligns with (Bhandari & Yasunobu, 2009) who explain that social capital and Islamic financial literacy complement each other in improving the quality of financial decision-making. Similar results were also presented by (Mansour & Jlassi, 2014) who showed that religious values contribute to the development of more responsible financial behavior. Conversely, increased Islamic financial knowledge may not necessarily be followed by behavioral changes without the support of a conducive social environment. Therefore, the integration of social capital and Islamic financial literacy is a crucial factor in developing financial behavior oriented towards business sustainability.

*12. The Moderating Effect of Digital Financial Literacy on the Relationship between Digital Financial Services and the Financial Behavior of Micro-Business Owners (H8a)*

The research results show that digital financial literacy strengthens the influence of digital financial services on the financial behavior of micro-business owners. This finding suggests that the ability to understand financial technology, access digital information, and use financial services safely helps business owners gain greater benefits from financial digitalization. Business owners with good digital literacy tend to be better able to utilize various digital service features to support transaction management, financial recording, and business decision-making. This finding is supported by (Abdallah et al., 2025; Rai et al., 2025; Tan et al., 2026) who explain that digital financial literacy improves the quality of financial behavior and decisions in the digital era. Similar results were also found by (Achanta & Lepcha, 2025; Angeles, 2022; Chhillar et al., 2025) who emphasized that the ability to use financial technology is a crucial factor in increasing the effectiveness of digital financial services. Meanwhile, (Anh, 2026) explained that the magnitude of this influence can vary depending on user characteristics and the level of technology adoption. Thus, increasing digital financial literacy is an important part of efforts to optimize the benefits of digital financial services for micro-entrepreneurs.

*13. The Moderating Effect of Digital Financial Literacy on the Relationship between Social Capital and the Financial Behavior of Micro-Business Owners (H8b)*

Contrary to the previous hypothesis, the study's findings indicate that digital financial literacy has not been able to strengthen the influence of social capital on the financial behavior of micro-business owners. This finding indicates that the formation of financial behavior is still more influenced by social relationships, trust, and experience gained through direct interactions than by the ability to utilize digital technology. Therefore, the benefits of social capital can still be felt even though the level of digital financial literacy among business actors varies. This study's findings differ from those of (X. Xiao et al., 2022; Xie & Chen, 2024; Yadav et al., 2026) which state that digital financial literacy can strengthen financial behavior by increasing access to information and utilizing technology. Conversely, these findings are more in line with those of (D'Ignazio et al., 2025; Mandal et al., 2022; Talip & Wasiuzzaman, 2024) which indicate that digital capabilities do not necessarily increase the effectiveness of social capital if the level of financial literacy, experience using technology, and financial inclusion are still limited. This opinion is supported by (Nizam et al., 2025; Prete, 2022; Sang, 2026) who explain that the benefits of digital financial literacy are highly dependent on user readiness and the supporting environment. Therefore, improving digital financial literacy needs to be accompanied by strengthening financial management capacity and expanding financial inclusion to maximize the benefits of social capital.

## Conclusion

This study demonstrates that digital financial services and social capital play important roles in improving the financial well-being of micro-enterprise owners, primarily through the formation of positive financial behavior. The findings indicate that the benefits of digital financial services and social capital are realized only when they are translated into prudent financial practices, such as disciplined financial planning, effective cash flow management, responsible spending, and sound financial decision-making. In addition, financial literacy, sharia financial literacy, and digital financial literacy strengthen the influence of digital financial services and social capital on financial behavior, although digital financial literacy does not significantly moderate the relationship between social capital and financial behavior. These findings extend the financial well-being literature by demonstrating that sustainable financial well-being is shaped not merely by greater access to digital financial services or stronger social networks, but by the ability of micro-enterprise owners to transform these resources into consistent financial behavior supported by adequate financial capabilities. Therefore, policies aimed at improving MSME financial well-being should prioritize behavioral change through integrated financial education, digital capability development, sharia financial literacy enhancement, and community-based empowerment alongside the expansion of digital financial services. Future research is encouraged to examine additional contextual factors, including digital infrastructure readiness, institutional support, entrepreneurial resilience, and local cultural characteristics, to better explain variations in the relationships among digital financial services, social capital, financial behavior, and financial well-being across different socioeconomic contexts.

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