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Financial Socialization and Digital Financial Literacy in Shaping Financial Well-Being: The Mediating Roles of Financial Behavior and Resilience among Indonesian Millennial Sandwich Generation

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ABSTRACT

This study examines the effects of financial socialization and digital financial literacy on financial well-being through financial behavior and resilience among Indonesian Millennial sandwich-generation individuals. Using a quantitative approach, data were collected from 431 respondents selected through purposive sampling and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings reveal that financial socialization positively influences financial behavior, financial resilience, and financial well-being. Digital financial literacy positively affects financial behavior but has no significant effect on financial resilience and exhibits a negative relationship with financial well-being. Financial behavior does not significantly influence financial well-being or mediate the proposed relationships. Conversely, financial resilience emerges as the strongest predictor of financial well-being and significantly mediates the relationship between financial socialization and financial well-being. These findings extend Family Resource Management System Theory by highlighting financial resilience as a crucial adaptive mechanism for maintaining financial well-being under intergenerational financial responsibilities.

ABSTRAK

Penelitian ini bertujuan menganalisis pengaruh sosialisasi keuangan dan literasi keuangan digital terhadap kesejahteraan keuangan melalui perilaku dan ketahanan keuangan pada generasi sandwich milenial di Indonesia. Penelitian menggunakan pendekatan kuantitatif dengan melibatkan 431 responden yang dipilih melalui teknik purposive sampling. Data dianalisis menggunakan Partial Least Squares Structural Equation Modeling (PLS-SEM). Hasil penelitian menunjukkan bahwa sosialisasi keuangan berpengaruh positif terhadap perilaku keuangan, ketahanan keuangan, dan kesejahteraan keuangan. Literasi keuangan digital berpengaruh positif terhadap perilaku keuangan, tetapi tidak signifikan terhadap ketahanan keuangan dan justru berpengaruh negatif terhadap kesejahteraan keuangan. Perilaku keuangan tidak berpengaruh signifikan terhadap kesejahteraan keuangan maupun memediasi hubungan yang diuji. Sebaliknya, ketahanan keuangan menjadi prediktor terkuat kesejahteraan keuangan serta memediasi hubungan sosialisasi keuangan dengan kesejahteraan keuangan. Temuan ini memperluas penerapan Family Resource Management System Theory dengan menegaskan pentingnya ketahanan keuangan sebagai mekanisme adaptif dalam menjaga kesejahteraan keuangan ketika individu menghadapi tanggung jawab finansial antargenerasi secara bersamaan.

1. INTRODUCTION

Indonesia's dependency ratio reached 45.02% in 2025, reflecting the considerable demographic burden borne by the working-age population (BPS Kota Pekanbaru, 2025). This situation presents particular challenges for Millennials, defined as individuals born between 1981 and 1996 (Lissitsa & Kagan, 2024). Some Millennials face overlapping financial responsibilities, as they must support their children while simultaneously provid-

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ing financial assistance to their parents. This group is commonly referred to as the Millennial sandwich generation. Such intergenerational obligations can create imbalances between income and expenditure, particularly regarding education, healthcare, and household necessities (Fan et al., 2024). Ramli et al. (2022) reported that only a small proportion of this group consistently maintained savings, while inadequate financial behavior has been associated with greater financial fragility (Jasen & Kim, 2023). These circumstances may threaten financial well-being, which reflects individuals' ability to meet financial obligations while maintaining their desired quality of life (Mahendru et al., 2025).

One factor contributing to financial well-being is financial socialization, defined as the process through which individuals acquire financial knowledge, values, attitudes, and behaviors from family members, educational institutions, peers, and broader social environments (Pak et al., 2024). Observing parental financial practices and receiving financial guidance during childhood can promote healthier financial management in adulthood (LeBaron et al., 2018; Xiao et al., 2022). Previous studies have emphasized the importance of financial socialization in shaping financial behavior and well-being (Shankar et al., 2022; She et al., 2023). However, technological developments and social media have increasingly transformed how Millennials acquire financial information and make financial decisions (Rahayu et al., 2022; Muat et al., 2025; Putri et al., 2026). Moreover, empirical findings regarding the relationship between financial socialization and financial well-being remain inconsistent. Utkarsh et al. (2020) identified a positive relationship, whereas Pak et al. (2024) reported a statistically insignificant effect. These contrasting findings suggest the need to examine the mechanisms through which financial socialization contributes to financial well-being.

The rapid expansion of e-commerce, financial technology (fintech), and digital payment systems has introduced additional financial challenges for the Millennial sandwich generation. Convenient digital transactions and buy-now-pay-later services may encourage impulsive purchasing, particularly when accompanied by fear of missing out (FOMO) and social comparison on digital platforms (Koskelainen et al., 2023; Aiswarya et al., 2024). Such consumption patterns may increase indebtedness and financial vulnerability (Ramli et al., 2022). Consequently, digital financial literacy has become increasingly important for enabling individuals to navigate digital financial services responsibly. Nevertheless, greater digital financial literacy does not necessarily translate directly into improved financial well-being. Choung et al. (2023) and Bhat et al. (2025) identified positive effects, whereas Respati et al. (2023) and Tan et al. (2025) reported statistically insignificant relationships. These inconsistencies suggest that the benefits of digital financial literacy may depend on intermediate mechanisms, particularly financial behavior and financial resilience.

Beyond financial knowledge and management practices, the ability to withstand economic uncertainty is particularly important for individuals facing intergenerational financial obligations. Financial resilience refers to the capacity to withstand, adapt to, and recover from financial disruptions, including unemployment, inflation, income instability, and emerging digital financial risks (Dutra et al., 2023; Yadav & Shaikh, 2023). Individuals with stronger financial capabilities are generally better positioned to respond to unexpected economic challenges (Allen et al., 2025). Emergency savings can also support financial stability and reduce financial anxiety during periods of uncertainty (Bai, 2024). Empirical evidence concerning the relationship between financial resilience and financial well-being, however, remains inconclusive. Salignac et al. (2019) and Curry (2025) identified positive relationships, whereas García-Santillán (2026) reported a statistically insignificant effect. These findings highlight the importance of further examining the contribution of financial resilience to financial well-being, particularly among individuals experiencing simultaneous financial responsibilities across generations.

Despite growing scholarly attention to financial well-being, several research gaps remain. First, previous studies have reported inconsistent findings regarding the relationships between financial socialization, digital financial literacy, financial resilience, and financial well-being. Second, external social influences and internal digital financial capabilities have often been examined separately rather than within an integrated framework. Third, research simultaneously investigating financial behavior and financial resilience as distinct mediating mechanisms remains limited, particularly in the context of the Millennial sandwich generation. Although both constructs may contribute to financial well-being, they represent different processes. Financial behavior reflects routine financial management practices, whereas financial resilience represents the adaptive capacity to maintain financial stability during economic disruptions. Examining these mechanisms together may provide a more comprehensive understanding of how financial resources and capabilities contribute to financial well-being.

To address these gaps, this study develops a dual-mediation model grounded in Family Resource

Management System Theory (FRMST), introduced by Deacon & Firebaugh (1988). Within this framework, financial socialization and digital financial literacy represent external and internal resources (*inputs*), respectively. These resources are subsequently transformed through financial behavior and financial resilience (*throughputs*) to support financial well-being as the ultimate *output*. The novelty of this study lies in integrating two distinct financial resources and two mediating mechanisms within a unified conceptual model specifically focused on the Millennial sandwich generation. This approach extends the application of FRMST by distinguishing between routine financial management practices and adaptive financial capabilities as potential pathways linking financial resources to financial well-being.

Accordingly, this study aims to examine the direct and indirect effects of financial socialization and digital financial literacy on financial well-being through the mediating roles of financial behavior and financial resilience among the Millennial sandwich generation. Theoretically, this research seeks to extend the application of FRMST in explaining how financial resources are transformed into financial well-being within an increasingly digitalized financial environment. Practically, the findings are expected to provide insights for policymakers, the Financial Services Authority (OJK), educational institutions, and digital financial service providers in designing financial literacy initiatives, financial management programs, and resilience-building strategies tailored to the needs of the Millennial sandwich generation.

2. THEORETICAL FRAMEWORK AND HYPOTHESES

2.1. Theoretical Foundation: Family Resource Management System Theory

Family Resource Management System Theory (FRMST), developed by Deacon & Firebaugh (1988), explains how individuals and families manage available resources to achieve desired outcomes and improve their well-being. The theory adopts a systems perspective comprising three interconnected stages: input, throughput, and output. Inputs represent resources obtained from internal and external environments, including knowledge, skills, values, and social influences. Throughput refers to the processes through which these resources are managed and transformed into meaningful actions, while output represents the outcomes of resource management. Unlike the Theory of Planned Behavior (TPB), which primarily explains behavioral intentions through attitudes, subjective norms, and perceived behavioral control, FRMST provides a broader framework for understanding how financial resources and capabilities contribute to financial well-being.

In this study, financial socialization and digital financial literacy represent external and internal inputs, respectively. Financial socialization reflects financial knowledge and values acquired through social interactions, whereas digital financial literacy represents individuals' capabilities to understand and utilize digital financial services. These resources are transformed through two distinct mechanisms: financial behavior and financial resilience. Financial behavior reflects routine financial management practices, while financial resilience represents the adaptive capacity to withstand and recover from financial difficulties. Both mechanisms constitute the throughput stage, with financial well-being representing the ultimate output. This distinction provides the theoretical foundation for examining dual mediation, particularly among the Millennial sandwich generation facing simultaneous intergenerational financial responsibilities.

2.2. Conceptualization of Research Constructs

2.2.1. Financial Well-Being

Financial well-being refers to individuals' ability to meet current financial obligations, maintain confidence in their financial future, and make financial decisions without excessive economic pressure (CFPB, 2012; Joo, 2008). Brüggen et al. (2017) conceptualized financial well-being as individuals' perceptions of their ability to sustain a desired standard of living. Its measurement incorporates objective indicators, including income, assets, savings, and debt, alongside subjective assessments of financial satisfaction and security (Netemeyer et al., 2018). These dimensions capture both current financial stress and expectations of future financial security. Recent studies further emphasize financial wisdom, responsible decision-making, and the role of digital technologies in supporting financial well-being (Mahendru et al., 2025; Sajid, 2024; Respati et al., 2023). Artificial intelligence has also been discussed as a potential tool for supporting financial decisions and reducing cognitive burdens (Anh, 2026).

2.2.2. Financial Socialization

Financial socialization refers to the acquisition of financial values, attitudes, knowledge, and behaviors through interactions with socialization agents (Danes, 1994). Families play a central role through financial discussions, direct instruction, and parental modeling (Gudmunson & Danes, 2011). The construct encompasses both family-based learning and broader influences from peers, educational institutions, workplaces, and media (Shim et al., 2010; Cho et al., 2012; Fan & Chatterjee, 2019; Pak et al., 2024). Empirical studies highlight its contribution to financial literacy, independence, and responsible financial management (Muat et al., 2025; Kaur & Singh, 2025). Financial socialization also helps individuals evaluate potentially misleading financial information in digital environments (Senduk et al., 2024), where navigating increasingly complex financial services has become essential for financial well-being (Rahayu et al., 2026).

2.2.3. Digital Financial Literacy

Digital financial literacy refers to the knowledge, skills, and confidence required to access, evaluate, and use digital financial products safely and responsibly (Alliance for Financial Inclusion, 2022; Lyons & Kass-Hanna, 2021). It combines conventional financial knowledge with digital competencies, including awareness of financial services, cybersecurity, and protection against online fraud (OECD/INFE, 2026). Beyond technical knowledge, digital financial literacy supports responsible financial decisions, effective risk management, and informed participation in digital financial systems (Putri et al., 2026; Rahayu et al., 2026). Recent studies associate these capabilities with financial inclusion, investment resilience, and improved financial management (Sabri et al., 2026; Bawalle et al., 2026; Liu & Chen, 2025).

2.2.4. Financial Behavior

Financial behavior encompasses individuals' financial management activities, including budgeting, saving, borrowing, investing, insurance planning, and expenditure control (Budiman et al., 2026; Liu & Chen, 2025). Within FRMST, financial behavior represents a managerial process through which financial knowledge and social resources are translated into practical decisions (Setiyani & Solichatun, 2019). These activities are influenced by individual perceptions and self-control (Iramani & Lutfi, 2021). Previous research indicates that disciplined financial practices contribute to financial stability and reduced economic stress (Respati et al., 2023; Sabri et al., 2023). In digital environments, responsible financial behavior also involves avoiding excessive digital borrowing, impulsive purchases, and financial misinformation (Senduk et al., 2024).

2.2.5. Financial Resilience

Financial resilience refers to individuals' or households' ability to withstand, adapt to, and recover from unexpected financial difficulties (Salignac et al., 2019). This multidimensional capability includes emergency savings, access to financial resources, adaptive financial strategies, and social support (Liu & Chen, 2026). The Resilience Buffer Hypothesis emphasizes its protective role in reducing financial stress (Curry, 2025), while the Social Identity Approach highlights the contribution of family relationships and social networks to effective financial coping (Stevenson et al., 2020). Financial knowledge and digital capabilities can strengthen resilience by improving access to financial services and supporting informed responses to economic disruptions (Hassan et al., 2018; Kass-Hanna et al., 2021). Consequently, financial resilience has become increasingly relevant for managing economic uncertainty and maintaining financial stability in digital financial environments (Yadav & Shaikh, 2023; Sabri et al., 2026).

2.3. Hypotheses Development

2.3.1. Financial Socialization and Financial Resilience

FRMST suggests that financial knowledge and values acquired through social interactions constitute external resources that may strengthen individuals' capacity to manage economic uncertainty (Deacon & Firebaugh, 1988). Through social learning, individuals observe and adopt financial coping strategies demonstrated by parents and other socialization agents (Bandura, 1977; Gudmunson & Danes, 2011). Financial discussions, parental guidance, and social support can encourage emergency savings, expenditure adjustments, and adaptive responses to financial difficulties (Serido et al., 2010; Salignac et al., 2019). Empirical evidence further indicates that financial socialization and supportive social relationships contribute to financial resilience (Stevenson et al., 2020; Muat et al., 2025; Liu & Chen, 2026). Therefore, the following hypothesis is proposed:
H1: Financial socialization positively influences financial resilience.

2.3.2. Financial Socialization and Financial Behavior
Financial socialization provides individuals with knowledge, attitudes, and values that can be translated into responsible financial management practices. Within FRMST, these social resources constitute inputs that are transformed into financial behavior through learning and experience (Deacon & Firebaugh, 1988). Parental modeling, financial discussions, and exposure to financial education encourage budgeting, saving, expenditure monitoring, and responsible borrowing (Gudmunson & Danes, 2011; Setiyani & Solichatun, 2019). Muat et al. (2025) further emphasized the contribution of financial socialization to financial management practices among Millennials. Accordingly, the following hypothesis is proposed:
H2: Financial socialization positively influences financial behavior.

2.3.3. Financial Socialization and Financial Well-Being
Financial socialization may contribute directly to financial well-being by strengthening financial confidence, decision-making capabilities, and perceptions of financial security. Family communication and parental guidance provide resources that support financial independence and reduce financial stress (Gudmunson & Danes, 2011; Lanz et al., 2020). Previous studies have demonstrated that early financial education and parental modeling contribute to healthier financial outcomes during adulthood (Shim et al., 2010; Utkarsh et al., 2020). Similar findings emphasize the importance of supportive financial communication in improving financial well-being (Sabri et al., 2023; Kaur & Singh, 2025; Muat et al., 2025). Therefore, the following hypothesis is formulated:
H3: Financial socialization positively influences financial well-being.

2.3.4. Digital Financial Literacy and Financial Behavior
Digital financial literacy represents an internal cognitive resource that enables individuals to make informed financial decisions. According to FRMST, this resource can be transformed into responsible financial behavior through effective financial management (Liu & Chen, 2025). Understanding digital financial services, cybersecurity risks, and financial products can improve budgeting, saving, borrowing, and investment decisions (Kass-Hanna et al., 2021). Empirical studies indicate that digital financial literacy encourages responsible financial practices and reduces potentially harmful consumption patterns (Rahayu et al., 2022; Nurkholik, 2024; Putri et al., 2025). Respati et al. (2023) similarly highlighted its importance in managing fintech-related financial risks. Therefore, the following hypothesis is proposed:
H4: Digital financial literacy positively influences financial behavior.

2.3.5. Digital Financial Literacy and Financial Resilience
Digital financial literacy may strengthen financial resilience by improving individuals' ability to identify financial risks, access appropriate financial services, and respond effectively to economic disruptions. Within FRMST, digital financial knowledge constitutes an input that can be transformed into adaptive financial capabilities (Lyons & Kass-Hanna, 2021; Muat et al., 2025). Financially literate individuals may be better equipped to manage emergency savings, evaluate digital financial products, and maintain financial stability during crises. Previous studies have linked digital financial literacy to financial inclusion and resilience (Lyons et al., 2020; Kass-Hanna et al., 2022). Related evidence also emphasizes the role of digital capabilities in strengthening community and business resilience (Rahmaniah & Paramita, 2021; Ariana et al., 2024). Accordingly, the following hypothesis is proposed:
H5: Digital financial literacy positively influences financial resilience.

2.3.6. Digital Financial Literacy and Financial Well-Being
Digital financial literacy may improve financial well-being by enabling individuals to use financial technologies effectively, evaluate financial risks, and make informed financial decisions. Within FRMST, digital financial capabilities represent resources that can contribute to financial security and satisfaction (Muat et al., 2025). Individuals with stronger digital financial literacy may experience greater confidence in managing financial obligations and preparing for future needs (Sajid, 2024; Lone et al., 2025). Empirical studies have identified positive relationships between digital financial literacy and financial well-being, particularly through improved financial decision-making and reduced financial stress (Choung et al., 2023; Bhat et al., 2025). Related evidence also highlights its contribution to responsible financial management and long-term financial stability (Respati et al., 2023; Chhillar et al., 2025). Therefore, the following hypothesis is proposed:
H6: Digital financial literacy positively influences financial well-being.

2.3.7. Financial Behavior and Financial Well-Being

Financial behavior represents the practical application of financial resources through budgeting, saving, debt management, and long-term financial planning. According to FRMST, these managerial activities constitute throughput processes that contribute to financial well-being (Muat et al., 2024). Responsible financial practices, including timely bill payments, emergency savings, and expenditure control, can reduce financial vulnerability and improve financial security (Dew & Xiao, 2011; Gutter & Copur, 2011). Previous studies have associated disciplined financial behavior with lower financial stress and improved financial well-being (Shim et al., 2009; Netemeyer et al., 2018; Iramani & Lutfi, 2021; Respati et al., 2023). Such practices are particularly important for the sandwich generation, whose financial resources must accommodate multiple family responsibilities (Sabri et al., 2023; Chhillar et al., 2025). Accordingly, the following hypothesis is proposed:
H7: Financial behavior positively influences financial well-being.

2.3.8. Financial Resilience and Financial Well-Being

Financial resilience enables individuals to maintain financial stability and psychological security when facing unexpected economic challenges. Within FRMST, resilience represents an adaptive throughput mechanism that supports financial well-being (Muat et al., 2024). Individuals with stronger resilience can respond to financial disruptions through liquidity management, expenditure adjustments, and social support (Salignac et al., 2019; Stevenson et al., 2020). Previous research highlights the importance of resilience in reducing financial distress and maintaining financial satisfaction (Curry, 2025; Sabri et al., 2026; Liu & Chen, 2026). Related evidence also associates financial resilience with individuals' capacity to meet financial obligations and maintain financial security (CFPB, 2015; García-Santillán, 2026). Therefore, the following hypothesis is proposed:
H8: Financial resilience positively influences financial well-being.

2.3.9. Mediating Role of Financial Behavior in the Relationship Between Financial Socialization and Financial Well-Being

Financial socialization may not automatically improve financial well-being unless acquired knowledge and values are translated into responsible financial practices. FRMST explains this mechanism through the transformation of external resources into managerial actions before producing financial outcomes (Deacon & Firebaugh, 1988; Muat et al., 2025). Although previous findings regarding the direct contribution of financial socialization to financial well-being remain inconsistent (Anthony et al., 2022), financial behavior may provide an explanatory pathway. Individuals who internalize financial guidance and consistently practice budgeting, saving, and expenditure control are better positioned to achieve financial security (Setiyani & Solichatun, 2019). Empirical studies also support the mediating contribution of financial behavior in linking socialization experiences to financial well-being (Pak et al., 2024; Sabri et al., 2023). Therefore, the following hypothesis is proposed:
H9: Financial behavior mediates the relationship between financial socialization and financial well-being.

2.3.10. Mediating Role of Financial Behavior in the Relationship Between Digital Financial Literacy and Financial Well-Being

Digital financial literacy provides knowledge and capabilities for navigating financial technologies, but these resources may not improve financial well-being without responsible financial practices. Previous studies have reported inconsistent direct relationships between digital financial literacy and financial well-being (Tan et al., 2025). Moreover, convenient digital financial services may encourage impulsive spending and excessive borrowing when financial self-control is inadequate (Choung et al., 2023). From an FRMST perspective, financial behavior transforms digital financial knowledge into practical financial management activities (Muat et al., 2025). Such activities include monitoring digital transactions, controlling online expenditures, and maintaining disciplined saving practices (Putri et al., 2025). Empirical evidence suggests that financial behavior can mediate the relationship between financial capabilities and well-being (Chhillar et al., 2025; Lone et al., 2025). Accordingly, the following hypothesis is proposed:
H10: Financial behavior mediates the relationship between digital financial literacy and financial well-being.

2.3.11. Mediating Role of Financial Resilience in the Relationship Between Financial Socialization and Financial Well-Being

Financial socialization may enhance financial well-being by developing individuals' capacity to withstand and adapt to financial difficulties. Early financial learning and family interactions provide knowledge, values, and coping strategies that support resilience during adulthood (Danes, 1994; Masten, 2021). Within FRMST, financial socialization represents an external input that can be transformed into financial resilience before contributing to financial well-being (Muat et al., 2025). Financial guidance and supportive family relationships may strengthen emergency savings, expenditure flexibility, and access to assistance during financial crises (Liu & Chen, 2026). Previous studies further suggest that resilience and social support contribute to financial stability and long-term well-being (Saeedi & Nishad, 2024; Sabri et al., 2026). Therefore, the following hypothesis is proposed:

H11: Financial resilience mediates the relationship between financial socialization and financial well-being.

2.3.12. Mediating Role of Financial Resilience in the Relationship Between Digital Financial Literacy and Financial Well-Being

Digital financial literacy may contribute to financial well-being by strengthening individuals' capacity to anticipate, manage, and recover from financial disruptions. In the FRMST framework, digital financial knowledge constitutes an internal resource that may be transformed into financial resilience before producing financial well-being (Muat et al., 2025). Individuals who understand digital financial risks and financial protection mechanisms may be better prepared to maintain financial stability during economic uncertainty (Kumar et al., 2023). Previous studies have emphasized the protective role of financial resilience in reducing financial distress and supporting well-being (Salignac et al., 2019; Curry, 2025). Related evidence also suggests that digital financial capabilities, adaptive investment decisions, and resilience contribute to household financial stability (Bawalle et al., 2026; Sabri et al., 2026; García-Santillán, 2026). Accordingly, the following hypothesis is proposed:

H12: Financial resilience mediates the relationship between digital financial literacy and financial well-being.

2.4. Conceptual Framework

Based on FRMST and the proposed hypotheses, this study develops an integrated conceptual framework examining the direct and indirect relationships among financial socialization, digital financial literacy, financial behavior, financial resilience, and financial well-being. Financial socialization and digital financial literacy represent the input stage, while financial behavior and financial resilience represent two parallel throughput mechanisms. Financial well-being constitutes the output stage. The framework includes eight direct-effect hypotheses (H1–H8) and four mediation hypotheses (H9–H12), allowing the study to assess whether routine financial management and adaptive financial capacity provide distinct pathways toward financial well-being among the Millennial sandwich generation.

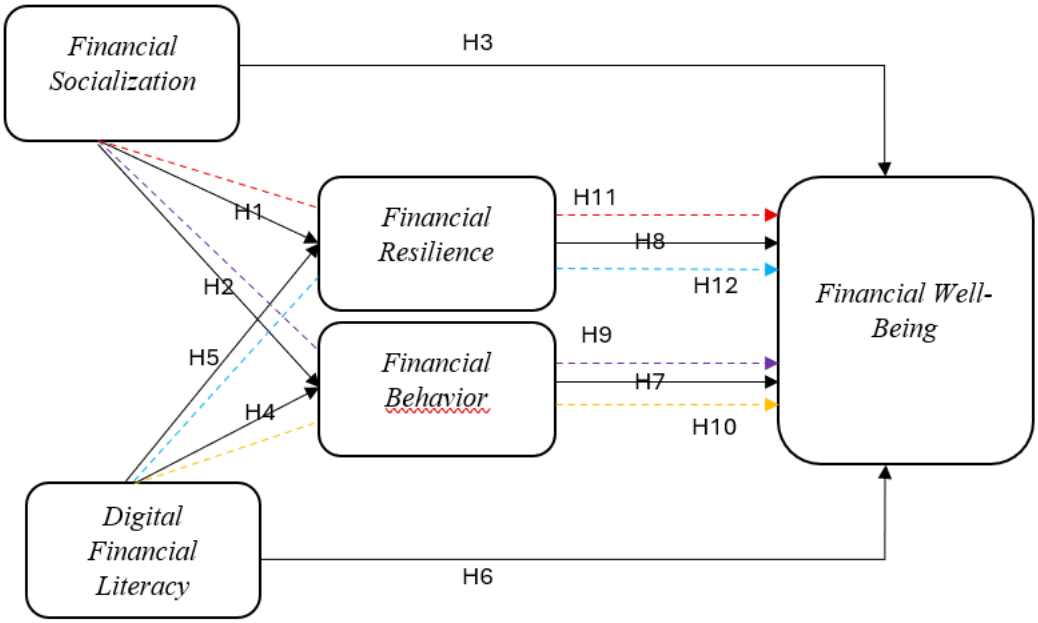


Figure 1. Hypothesized Research Framework

3. RESEARCH METHOD

3.1. Research Design and Sampling

This study employed a quantitative approach with a cross-sectional survey design to examine the relationships among financial socialization, digital financial literacy, financial behavior, financial resilience, and financial well-being among the Indonesian Millennial sandwich generation. The target population comprised Millennials born between 1981 and 1996 who simultaneously provided financial support to their children and parents. Respondents were selected using purposive sampling based on four criteria: (1) having an independent income; (2) being primarily responsible for personal or household financial decisions; (3) having experience using digital financial services, such as fintech applications or mobile banking; and (4) having financial responsibilities toward both children and parents. The minimum sample size was initially considered using the ten-times rule proposed by Barclay et al. (1995), based on the maximum number of structural paths directed toward an endogenous construct. A total of 431 eligible respondents were included in the study. Primary data were collected between June and July 2026 through an online questionnaire administered using Google Forms and distributed via social networking platforms, including WhatsApp and LinkedIn. All measurement items employed a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

3.2. Measurement of Research Variables

The research instrument comprised 55 measurement items representing five latent constructs. Financial well-being was operationalized through respondents' subjective assessments of their ability to meet financial obligations, fulfill daily needs, achieve short- and long-term financial goals, and maintain confidence in their future financial security. These measurements were adapted from Muat et al. (2025). Financial socialization was measured using a multiple-agent approach, encompassing financial learning through family interactions, parental guidance and modeling, peer influences, and social media exposure (Ahamed et al., 2025; Goyal & Kumar, 2026). Digital financial literacy reflected individuals' ability to understand and responsibly utilize digital financial services, including digital platform navigation, cybersecurity awareness, and the identification and mitigation of online financial fraud risks (Sabri et al., 2026). Financial behavior was assessed using four dimensions: cash management and consumption, including budgeting and expenditure monitoring; savings and investment, reflecting saving habits and future financial planning; credit management, including debt control and timely payments; and insurance, representing financial protection through insurance ownership (Dew & Xiao, 2011). Financial resilience was measured based on the multidimensional framework developed by Salignac et al. (2019), comprising economic resources, financial resources, financial knowledge and behavior, and social capital. These dimensions reflect individuals' capacity to withstand,

adapt to, and recover from financial difficulties.

3.3. Data Analysis

Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS software. PLS-SEM was selected because the study involved multiple latent constructs and two parallel mediating variables, enabling the simultaneous examination of direct and indirect relationships. This approach also supports variance-based model estimation and the assessment of explained variance in endogenous constructs without requiring multivariate normality (Hair et al., 2022). The analysis comprised two stages. First, the measurement model (outer model) was evaluated to assess convergent validity, discriminant validity, and internal consistency reliability. Convergent validity was examined using outer loadings, preferably ≥ 0.70, and average variance extracted (AVE ≥ 0.50). Indicators with loadings between 0.50 and 0.70 could be retained when construct reliability and validity remained satisfactory. Discriminant validity was assessed using the heterotrait–monotrait ratio (HTMT < 0.90), while internal consistency was evaluated using Cronbach's alpha (α ≥ 0.70) and composite reliability (CR ≥ 0.70) (Hair et al., 2022).

Second, the structural model (inner model) was assessed using the variance inflation factor (VIF < 5, preferably < 3) to identify potential multicollinearity and the coefficient of determination (R^2) to evaluate the explanatory power of endogenous constructs. Following Hair et al. (2022), R^2 values of 0.75, 0.50, and 0.25 were interpreted as substantial, moderate, and weak, respectively. Hypothesis testing was conducted using the bootstrapping procedure at a 5% significance level (α = 0.05). Statistical significance was evaluated using t-statistics and p-values, with t > 1.96 and p < 0.05 serving as the criteria for statistical significance in two-tailed tests. The mediating roles of financial behavior and financial resilience were examined through specific indirect effects. Mediation was considered statistically significant when the 95% bootstrap confidence interval excluded zero, following Hair et al. (2022).

4. DATA ANALYSIS AND DISCUSSION

4.1. Results

4.1.1. Respondent Characteristics

This study involved 431 respondents who met the criteria for the Millennial sandwich generation. Most respondents were aged 30–35 years (65.9%), followed by those aged 36–40 years (19.7%) and 41–45 years (14.4%). Regarding educational attainment, bachelor's degree holders represented the largest group (36.2%), followed by senior high school graduates (27.4%) and diploma holders (22.5%). Most respondents reported monthly incomes of IDR 5–10 million (45.7%), while 31.8% earned less than IDR 5 million. In terms of financial dependents, 34.6% supported four individuals, followed by three dependents (29.2%) and two dependents (16.0%). These characteristics indicate that many respondents were managing multiple financial responsibilities during their economically productive years. Their simultaneous obligations toward children and parents provide a relevant context for examining how financial resources, management practices, and adaptive capabilities relate to financial well-being.

4.1.2. Measurement Model Assessment

The measurement model was evaluated through indicator reliability, convergent validity, internal consistency reliability, and discriminant validity. The initial assessment revealed several indicators with insufficient outer loadings. Following Hair et al. (2022), indicators with loadings below 0.40 were initially removed, followed by further purification of indicators with relatively weak contributions to convergent validity. Consequently, 27 of the original 55 indicators were eliminated, leaving 28 indicators in the final measurement model. The retained indicators demonstrated outer loadings ranging from 0.652 to 0.826 across the financial socialization, digital financial literacy, financial behavior, and financial resilience constructs, while financial well-being indicators ranged from 0.729 to 0.814. Although several retained indicators had loadings below 0.70, their inclusion was supported by acceptable construct-level reliability and convergent validity. Table 1 presents the final reliability and validity results.

Table 1. Construct Reliability and Convergent Validity

Construct	Cronbach's α	CR (ρc)	AVE
Digital Financial Literacy (DFL)	0.675	0.802	0.505
Financial Behavior (FB)	0.768	0.843	0.519
Financial Resilience (FR)	0.808	0.862	0.511
Financial Socialization (FS)	0.721	0.825	0.543
Financial Well-Being (FWB)	0.918	0.932	0.605

Source: SmartPLS analysis (2026).

All constructs achieved composite reliability values above 0.70 and AVE values above 0.50, supporting internal consistency and convergent validity. Cronbach's alpha also exceeded 0.70 for four constructs. Digital financial literacy recorded a slightly lower alpha of 0.675, although its composite reliability (0.802) and AVE (0.505) met the specified thresholds. Discriminant validity was assessed using the heterotrait–monotrait ratio (HTMT). The values ranged from 0.115 to 0.868, remaining below the adopted threshold of 0.90. The highest HTMT value was observed between financial resilience and financial well-being (0.868), indicating relatively strong construct associations while satisfying the specified discriminant validity criterion.

4.1.3. Structural Model Assessment

The structural model was evaluated using variance inflation factors (VIF), model fit indicators, and coefficients of determination (R^2). All inner VIF values ranged from 1.255 to 1.799, indicating no substantial multicollinearity among predictor constructs. The standardized root mean square residual (SRMR) was 0.062 for the saturated model and 0.088 for the estimated model. These results provide supplementary information regarding model fit, although the primary evaluation of PLS-SEM focuses on measurement quality, structural relationships, and explanatory power (Hair et al., 2022).

Table 2. Coefficients of Determination

Endogenous construct	R^2	Adjusted R^2
Financial Behavior	0.316	0.313
Financial Resilience	0.148	0.144
Financial Well-Being	0.591	0.587

Source: SmartPLS analysis (2026).

The model explained 31.6% of the variance in financial behavior and 14.8% in financial resilience, indicating relatively limited explanatory power for these constructs. Meanwhile, the predictors collectively explained 59.1% of the variance in financial well-being, representing moderate explanatory power based on the criteria proposed by Hair et al. (2022). These findings suggest that financial socialization, digital financial literacy, financial behavior, and financial resilience jointly account for a substantial proportion of the observed variation in financial well-being, although additional factors remain outside the proposed model.

4.1.4. Direct Effects and Hypothesis Testing

Direct relationships were evaluated using bootstrapping with a 5% significance level. Table 3 summarizes the standardized path coefficients, t-statistics, p-values, and hypothesis decisions.

Table 3. Direct Effects and Hypothesis Testing

Hypothesis	Relationship	β	t-value	p-value	Decision
H1	FS → FR	0.373	5.562	<0.001	Supported
H2	FS → FB	0.298	5.056	<0.001	Supported
H3	FS → FWB	0.375	5.589	<0.001	Supported
H4	DFL → FB	0.361	6.131	<0.001	Supported
H5	DFL → FR	0.024	0.438	0.661	Not supported
H6	DFL → FWB	−0.116	2.231	0.026	Not supported
H7	FB → FWB	0.111	1.960	0.050	Not supported
H8	FR → FWB	0.699	17.302	<0.001	Supported

Source: SmartPLS analysis (2026). FS = Financial Socialization; DFL = Digital Financial Literacy; FB = Financial Behavior; FR = Financial Resilience; FWB = Financial Well-Being.

The results indicate that financial socialization positively and significantly influenced financial resilience (β = 0.373), financial behavior (β = 0.298), and financial well-being (β = 0.375), supporting H1–H3. Digital financial literacy positively influenced financial behavior (β = 0.361), supporting H4, but showed no significant relationship with financial resilience (β = 0.024, p = 0.661), resulting in the rejection of H5. Unexpectedly, digital financial literacy exhibited a significant negative relationship with financial well-being (β = −0.116, p = 0.026). Therefore, H6 was not supported because the observed direction contradicted the proposed positive relationship. Financial behavior showed a positive but borderline, non-significant relationship with financial well-being under the study's stated decision rule (β = 0.111, p = 0.050), leaving H7 unsupported. In contrast, financial resilience demonstrated a strong positive relationship with financial well-being (β = 0.699, p < 0.001), supporting H8.

4.1.5. Mediation Analysis

The mediating roles of financial behavior and financial resilience were assessed using bootstrapped specific indirect effects. Table 4 presents the results.

Table 4. Indirect Effects and Mediation Testing

Hypothesis	Indirect relationship	β	t-value	p-value	Decision
H9	FS → FB → FWB	0.033	1.716	0.086	Not supported
H10	DFL → FB → FWB	0.040	1.885	0.059	Not supported
H11	FS → FR → FWB	0.261	5.655	<0.001	Supported
H12	DFL → FR → FWB	0.016	0.434	0.664	Not supported

Source: SmartPLS analysis (2026).

Financial behavior did not significantly mediate the relationship between financial socialization and financial well-being (β = 0.033, p = 0.086), nor the relationship between digital financial literacy and financial well-being (β = 0.040, p = 0.059). Accordingly, H9 and H10 were not supported. Conversely, financial resilience significantly mediated the relationship between financial socialization and financial well-being (β = 0.261, p < 0.001), supporting H11. Since both the direct and indirect effects were positive and statistically significant, this relationship was classified as complementary partial mediation, consistent with Zhao et al. (2010) and Hair et al. (2022). Financial resilience did not significantly mediate the relationship between digital financial literacy and financial well-being (β = 0.016, p = 0.664), leaving H12 unsupported. Overall, the findings indicate that financial resilience, rather than routine financial behavior, served as the significant mediating mechanism linking financial socialization to financial well-being.

4.2. Discussion

4.2.1. Financial Socialization as a Foundation for Financial Well-Being

The findings demonstrate that financial socialization positively influences financial resilience, financial behavior, and financial well-being, supporting H1, H2, and H3. These results indicate that financial knowledge, values, and experiences acquired through family members, peers, educational institutions, and social environments remain important resources for the Millennial sandwich generation. Financial socialization may strengthen individuals' capacity to manage financial obligations, establish responsible financial habits, and respond to unexpected economic challenges. The positive relationship between financial socialization and financial resilience is consistent with Serido et al. (2010) and Stevenson et al. (2020), who emphasized the importance of financial learning, family relationships, and social support in developing coping capabilities. Similarly, the positive relationship with financial behavior supports Gudmunson & Danes (2011), Setiyani & Solichatun (2019), and Muat et al. (2025), who highlighted the contribution of socialization experiences to responsible financial management. The significant direct relationship with financial well-being also aligns with Utkarsh et al. (2020), although it differs from Pak et al. (2024), who reported an insignificant direct effect. These findings are particularly relevant because most respondents were aged 30–35 years and simultaneously supported children and parents. Within FRMST, financial socialization represents an external input that can contribute to both managerial and adaptive capacities. The results suggest that financial learning is associated not only with everyday financial practices but also with individuals' perceived ability to maintain

financial security under substantial family responsibilities.

4.2.2. Digital Financial Literacy: Improved Behavior but Limited Financial Security

Digital financial literacy positively influenced financial behavior, supporting H4. This finding suggests that individuals who better understand digital financial services tend to demonstrate more responsible financial management practices, including budgeting, monitoring transactions, and planning future expenditures. The result is consistent with Rahayu et al. (2022), Respati et al. (2023), and Liu & Chen (2025), who emphasized the contribution of digital financial capabilities to financial decision-making and management. However, digital financial literacy did not significantly influence financial resilience, resulting in the rejection of H5. This finding suggests that understanding and using digital financial services does not necessarily correspond to stronger adaptive capacity during financial difficulties. Digital financial literacy may facilitate transactions and improve access to financial information, but financial resilience also depends on economic resources, financial protection, and social support (Salignac et al., 2019; Kass-Hanna et al., 2021). The result therefore differs from studies associating digital capabilities with greater financial resilience, including Lyons & Kass-Hanna (2021). More unexpectedly, digital financial literacy showed a significant negative relationship with financial well-being, contradicting H6. This result differs from the positive associations reported by Choung et al. (2023) and Bhat et al. (2025), while adding to the mixed evidence identified by Respati et al. (2023) and Tan et al. (2025). One possible interpretation is that greater familiarity with digital financial services may coexist with increased exposure to consumption opportunities, digital borrowing, and financial commitments. Such conditions may be especially relevant for Millennials facing multiple family obligations. Nevertheless, the cross-sectional design does not establish that digital financial literacy causes financial deterioration. The negative coefficient should therefore be interpreted as an association within the estimated model rather than evidence of a causal mechanism.

4.2.3. Financial Behavior and Financial Resilience as Distinct Mechanisms

Financial behavior exhibited a positive but non-significant relationship with financial well-being, leaving H7 unsupported. This finding differs from studies identifying responsible financial practices as significant predictors of financial well-being (Iramani & Lutfi, 2021; Respati et al., 2023; Sabri et al., 2023). Although budgeting, saving, and debt management are important financial activities, their contribution to perceived financial well-being may be constrained when available income must support several family members simultaneously. For the Millennial sandwich generation, responsible financial behavior may help individuals manage limited resources without necessarily eliminating financial pressure. The predominance of respondents earning IDR 5–10 million per month, combined with relatively large numbers of dependents, provides a relevant context for interpreting this result. However, the findings do not establish that financial obligations caused the non-significant relationship.

In contrast, financial resilience demonstrated the strongest positive relationship with financial well-being ($\beta = 0.699$), supporting H8. This finding is consistent with Salignac et al. (2019), Curry (2025), and Liu & Chen (2026), who emphasized the importance of adaptive financial capacity in maintaining financial security and reducing distress. Individuals with stronger resilience may be better equipped to manage unexpected expenses, adjust financial priorities, and recover from economic disruptions. From an FRMST perspective, these findings distinguish two throughput mechanisms. Financial behavior represents routine resource management, whereas financial resilience represents adaptive capacity under financial pressure. The stronger association of resilience with financial well-being suggests that the ability to maintain financial stability during disruptions may be particularly relevant for individuals carrying intergenerational financial responsibilities.

4.2.4. The Mediating Roles of Financial Behavior and Financial Resilience

The mediation analysis revealed that financial behavior did not significantly mediate the relationships between financial socialization and financial well-being (H9) or between digital financial literacy and financial well-being (H10). These findings indicate that although both financial socialization and digital financial literacy were positively associated with financial behavior, the indirect pathways through financial behavior were not statistically supported. The result contrasts with Pak et al. (2024), who identified a mediating role for financial behavior. One possible explanation is that responsible financial practices may be insufficient to

improve perceived financial well-being when individuals face substantial and persistent financial obligations. For the Millennial sandwich generation, allocating resources responsibly does not necessarily eliminate financial strain arising from simultaneous responsibilities toward children and parents. This interpretation is consistent with the non-significant direct relationship between financial behavior and financial well-being.

In contrast, financial resilience significantly mediated the relationship between financial socialization and financial well-being (H11). The significant direct and indirect effects indicate complementary partial mediation, suggesting that financial socialization is associated with financial well-being both directly and through stronger financial resilience. This finding supports the importance of financial learning and social support in developing adaptive financial capabilities, consistent with Liu & Chen (2025) and Sabri et al. (2026). However, financial resilience did not mediate the relationship between digital financial literacy and financial well-being (H12). This result is consistent with the non-significant relationship between digital financial literacy and financial resilience. It suggests that digital financial knowledge alone may not be sufficient to establish the economic resources, financial protection, and adaptive capabilities required to withstand financial shocks. The finding also highlights differences between digital financial competence and financial resilience, despite their potential conceptual connections (Lyons & Kass-Hanna, 2021; Kass-Hanna et al., 2021).

4.2.5. Theoretical Interpretation within FRMST

Collectively, the findings provide partial empirical support for the input–throughput–output framework proposed by Deacon & Firebaugh (1988). Financial socialization, as an external input, was positively associated with financial behavior, financial resilience, and financial well-being. However, only financial resilience significantly transmitted the association between financial socialization and financial well-being. This result highlights the importance of adaptive financial capacity as a mechanism through which social resources are associated with financial outcomes. Digital financial literacy, representing an internal input, was positively associated with financial behavior but not with financial resilience. Its negative direct relationship with financial well-being further indicates that possessing digital financial capabilities does not necessarily correspond to improved financial outcomes. Similarly, the absence of significant mediation through financial behavior suggests that transforming financial knowledge into routine management practices may not be sufficient under substantial economic pressure. The principal theoretical contribution therefore lies in distinguishing routine financial management from adaptive financial resilience within the throughput stage of FRMST. Rather than treating financial behavior and resilience as interchangeable mechanisms, the findings suggest that their relationships with financial well-being differ. In the context of the Millennial sandwich generation, financial resilience appears to provide a more relevant explanatory pathway linking financial socialization with financial well-being, while the effectiveness of digital financial capabilities remains more complex and context-dependent.

5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

This study examined the direct and indirect relationships among financial socialization, digital financial literacy, financial behavior, financial resilience, and financial well-being among 431 Indonesian Millennial sandwich-generation respondents. The findings demonstrate that financial socialization positively and significantly influences financial behavior, financial resilience, and financial well-being. Digital financial literacy positively influences financial behavior but has no significant relationship with financial resilience. Unexpectedly, digital financial literacy exhibits a significant negative relationship with financial well-being, indicating that greater digital financial capabilities do not necessarily correspond to improved financial security. Furthermore, financial behavior does not demonstrate a statistically significant relationship with financial well-being, whereas financial resilience emerges as its strongest direct predictor. The mediation analysis reveals that financial behavior does not significantly mediate the relationships between financial socialization or digital financial literacy and financial well-being. In contrast, financial resilience significantly mediates the relationship between financial socialization and financial well-being, but not the relationship between digital financial literacy and financial well-being. These findings suggest that financial well-being among the Millennial sandwich generation is more strongly associated with the capacity to withstand and adapt to financial difficulties than with routine financial management practices alone.

Theoretically, this study extends the application of Family Resource Management System Theory (FRMST) by demonstrating that the transformation of financial resources into financial well-being differs

according to the type of input and throughput mechanism. Financial socialization, representing an external resource, contributes to financial well-being both directly and indirectly through financial resilience. However, digital financial literacy, representing an internal resource, does not demonstrate the same pattern. Similarly, financial behavior does not significantly transmit the relationships between the two financial resources and financial well-being. These findings refine the input–throughput–output perspective by distinguishing routine financial management from adaptive financial capabilities and highlighting financial resilience as a particularly important mechanism linking financial socialization to financial well-being. Practically, the findings suggest that financial education initiatives should extend beyond improving financial knowledge and digital transaction skills. Families should strengthen financial communication and encourage responsible financial practices, including budgeting, saving, debt management, and emergency preparedness. Policymakers, the Financial Services Authority (OJK), educational institutions, and financial service providers should integrate financial resilience into literacy programs by emphasizing financial risk management, emergency savings, financial protection, and adaptive planning. Digital financial service providers should also promote responsible financial decisions through transparent product information, budgeting tools, and education concerning digital credit and buy-now-pay-later risks. For the Millennial sandwich generation, strengthening financial resilience may be particularly relevant for maintaining financial stability while managing simultaneous responsibilities toward children and parents.

Several limitations should be acknowledged. First, the cross-sectional research design restricts the ability to establish causal relationships or examine changes in financial well-being over time. Second, the use of self-reported questionnaires may introduce response bias and potential common method bias. Third, the study employed purposive sampling and focused exclusively on Indonesian Millennials with simultaneous financial responsibilities toward children and parents, limiting the generalizability of the findings to other generations and socioeconomic contexts. Finally, the proposed model examined only financial socialization and digital financial literacy as antecedents, with financial behavior and financial resilience as mediating mechanisms. Other potentially relevant factors, including financial self-efficacy, financial stress, financial inclusion, financial capability, economic conditions, and psychological characteristics, were not incorporated. These limitations should be considered when interpreting the unexpected negative relationship between digital financial literacy and financial well-being and the non-significant mediation pathways.

Future studies should employ longitudinal designs to investigate changes in financial well-being and the relationships among financial resources, behavior, and resilience over time. Combining self-reported questionnaires with objective financial indicators, such as transaction records, savings balances, outstanding debt, actual income, and repayment histories, could improve measurement accuracy and reduce potential response bias. Future research should also incorporate additional explanatory variables, particularly financial stress, financial self-efficacy, financial inclusion, and financial capability, to clarify the mechanisms underlying financial well-being. Further investigation is especially needed to explain the negative relationship between digital financial literacy and financial well-being and the absence of significant relationships involving several proposed mediation pathways. Mixed-methods approaches could provide deeper insights into how digital financial services, household financial obligations, and adaptive financial strategies shape individual financial experiences. Comparative studies involving Generation X, Generation Z, and different geographical or national contexts are also recommended to assess the broader applicability of the proposed framework and identify potential differences across socioeconomic and cultural environments.

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