







# “Financial literacy and well-being among Generation Z: The mediating roles of digital literacy, capability, and impulsivity in Indonesia”

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# FINANCIAL LITERACY AND WELL-BEING AMONG GENERATION Z: THE MEDIATING ROLES OF DIGITAL LITERACY, CAPABILITY, AND IMPULSIVITY IN INDONESIA

**Abstract**

The rapid expansion of digital financial services has reshaped how young adults manage money, presenting both new opportunities and behavioral risks. Although financial literacy is widely recognized as a key driver of financial well-being, empirical evidence regarding its direct impact remains mixed. This study examines the indirect pathways through which financial literacy influences financial well-being, focusing on the mediating roles of digital financial literacy, financial capability, financial autonomy, and impulsivity.

A quantitative online survey was administered to 984 Indonesian respondents from Generation Z, and the data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results indicate that financial literacy significantly enhances digital financial literacy, which subsequently strengthens financial capability and decision-making processes. Among all mediators, financial capability consistently emerges as the most influential pathway, whereas impulsivity does not demonstrate a meaningful mediating effect. The structural model accounts for 57.3% of the variance in financial well-being, highlighting the central role of digital competence and capability development in shaping positive financial outcomes.

The study contributes to the literature by integrating cognitive, behavioral, and psychological factors into a single explanatory framework of financial well-being among digitally active young adults. From a practical perspective, the findings underscore the need for financial education initiatives that combine foundational literacy with digital financial skills and capability-building elements. Policymakers and financial service providers in emerging economies are encouraged to strengthen accessible digital tools and targeted interventions for younger populations.

**Keywords**

literacy, capability, autonomy, behavior, impulsivity, well-being, youth, Indonesia, finance, digital

**JEL Classification**

G41, D14, I31, O16

**INTRODUCTION**

Financial literacy is widely viewed as a critical prerequisite for making sound financial choices and achieving greater financial well-being (Huston, 2010; Lusardi & Mitchell, 2014). Individuals with stronger financial knowledge tend to assess financial products more effectively, manage their debt more prudently, and prepare for future financial needs more confidently – factors that collectively support better financial well-being (Xiao & Porto, 2017). Nevertheless, prior research has shown mixed evidence on whether financial literacy directly improves financial well-being, suggesting that its impact may operate through other mechanisms such as financial capability and behavioral or psychological traits.

This issue is particularly relevant in today's context, where financial decisions are increasingly mediated by digital financial technologies. Psychological tendencies such as impulsivity and socio-economic circumstances may further complicate how financial knowledge is applied in practice. Understanding these dynamics is critical for developing a more comprehensive framework of financial well-being that goes beyond knowledge alone.

In Indonesia, financial literacy remains a pressing challenge. According to the 2022 national survey released by the Indonesian Financial Services Authority (OJK, 2022), the level of financial literacy in Indonesia stood at only 49.68%, while the financial inclusion rate had reached 85.10%. This imbalance indicates that although access to financial services is relatively high, the ability to use them effectively remains limited. Moreover, financial well-being among Indonesians lags behind neighboring countries such as Singapore and Malaysia, where both literacy and well-being are considerably higher (World Bank, 2021).

Recent empirical studies in Indonesia have offered additional insight into how digital literacy contributes to financial behavior and financial outcomes. Rahayu et al. (2023) reported, through their research on women's economic empowerment, that digital financial literacy plays a more influential role than conventional financial literacy in several aspects, including decision quality, leadership, income management, time use, and overall financial well-being. Their results show that digital competencies enrich basic financial knowledge and function as an important source of strength for improving individual empowerment and resilience in financial life.

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## 1. LITERATURE REVIEW AND HYPOTHESES

Financial literacy is widely recognized as the foundation for effective financial behavior because it equips individuals with the ability to understand interest rates, inflation, diversification, and other core concepts that are crucial for making well-reasoned financial decisions (Huston, 2010; Lusardi & Mitchell, 2014; OECD, 2022). A strong base in financial literacy supports debt management, retirement planning, and long-term wealth accumulation. However, in a context where financial systems are rapidly digitizing, reliance on traditional financial literacy alone is insufficient. Recent studies emphasize the growing relevance of digital financial literacy, defined as the competence to navigate mobile banking, electronic wallets, and other online financial services securely and efficiently. Evidence from Vietnam suggests that digital financial literacy plays a significant role in shaping individuals' banking usage patterns (Phan et al., 2024), whereas research from Korea indicates a stronger association with financial well-being compared to traditional financial knowledge (Choung et al., 2023). Digital financial literacy strengthens awareness of digital risks while encouraging broader participation, which may contribute to narrowing socio-economic disparities

(Gumilar et al., 2024). Evidence shows that while traditional financial literacy strengthens cognitive understanding of concepts, including concepts related to borrowing cost, price stability, and portfolio risk spreading (Lusardi & Mitchell, 2014), digital literacy adds the technical dimension necessary to operate effectively in digital financial ecosystems (Choung et al., 2023). Studies in Indonesia further demonstrate that individuals who possess stronger digital financial literacy report greater awareness of transaction security and consumer protection (Hasan, 2024) and that digital literacy has significant impacts on saving, spending, and investment behaviors (Rahayu et al., 2022, 2023). Empirical evidence from Indonesia and other emerging markets indicates that financial literacy and digital skills are linked to the adoption of digital financial services; in Indonesia, financial literacy relates to adoption indirectly through user innovativeness, while evidence from a neighboring emerging market shows digital literacy exerts a direct – and stronger – effect on mobile payment adoption (Setiawan et al., 2023; Ullah et al., 2022). Collectively, these results indicate that digital financial literacy does not replace but rather amplifies the effects of traditional literacy, positioning it as a crucial mediator that translates financial knowledge into effective behaviors and ultimately, improved financial well-being.

Beyond knowledge, the ability to transform literacy into practice is captured by the concept of financial capability. Commonly defined as the integration of financial knowledge, skills, and confidence to manage resources effectively, capability is associated with behaviors that include managing savings, planning budgets, and handling debt (Atkinson et al., 2007; Tahir et al., 2021; Xiao & O'Neill, 2016). Individuals with stronger capabilities demonstrate greater resilience to economic pressures and are more likely to make evidence-based decisions (Kumar et al., 2023; Kempson et al., 2017). Recent studies show that capability not only influences well-being directly but also operates through financial decision-making, highlighting its mediating role (Parvathy & Kumar, 2022). Closely linked to financial capability is financial autonomy, conceptualized as the individual's independence in making financial decisions without depending on others (Sen, 1993; Clarke et al., 2005; Xiao, 2016). Self-Determination Theory (Deci & Ryan, 2000) explains that autonomy emerges when individuals experience both competence and control, allowing them to act independently while maintaining confidence in their decisions. Empirical studies indicate that autonomy, when reinforced by capability, leads to more sustainable and responsible financial behavior (Xiao & O'Neill, 2016; Parvathy & Kumar, 2022; Kumar et al., 2023). Without capability, however, autonomy may result in independence without direction, reducing the effectiveness of financial choices.

Psychological factors also shape the extent to which literacy and capability are translated into outcomes. Impulsivity, referring to actions taken hastily or with minimal reflection, undermines rational decision-making by favoring immediate gratification over long-term planning. Dual-Process Theory (Kahneman, 2011) describes this as the dominance of fast, emotion-driven responses over slower, deliberate reasoning. Evidence shows that people who exhibit stronger impulsive tendencies tend to spend beyond their planned limits, misuse credit, and engage in risky investments, even when financially literate (Ottaviani & Vandone, 2018; Katauke et al., 2023; Lunt & Livingstone, 1991). In digital contexts where transactions are instantaneous and access to platforms is seamless, impulsivity can be heightened,

resulting in behaviors such as uncontrolled spending. Studies on livestream and e-commerce environments show that psychological triggers like FOMO, emotional arousal, and limited self-control significantly increase impulse buying (Wang et al., 2022; Nguyen & Van Nguyen, 2025; Feng et al., 2024). Studies also suggest that impulsivity weakens the positive effects of literacy on behavior because knowledge alone cannot offset behavioral tendencies (Strömbäck et al., 2017; Younas et al., 2019). These findings emphasize that interventions must target both cognitive and behavioral dimensions to enhance financial outcomes.

Financial decision-making is the mechanism through which literacy, capability, and psychological traits are converted into tangible results. It encompasses evaluating alternatives, allocating resources, and addressing current necessities without losing sight of long-term plans (Huston, 2010; Garg & Singh, 2018). Strong literacy and capability consistently predict prudent behaviors such as saving, investing, and responsible spending (Vosloo et al., 2014; Akhtar & Liu, 2018; Tang & Baker, 2016). In digital environments, decision-making is enhanced by the ability to use financial technologies effectively, thereby improving inclusion and accessibility (Morgan et al., 2019; Choung et al., 2023). Conversely, decision-making can be compromised by impulsivity, as individuals prone to acting without deliberation often fail to apply knowledge rationally, resulting in financial stress (Ottaviani & Vandone, 2018; Katauke et al., 2023; Bai et al., 2023). Research also confirms that effective financial decisions, such as preparing for emergencies and managing debt systematically, are essential for maintaining financial resilience (Mushafiq et al., 2023; Das, 2025). Research shows that poor financial decisions and the resulting financial hardship are linked to higher stress and lower well-being, while financial stress is also associated with reduced life satisfaction and poorer psychological health (Hernández-Pérez et al., 2025; Graham, 2025).

Taken together, the literature highlights the multifaceted drivers of financial well-being: literacy provides the cognitive foundation, digital literacy ensures applicability in modern contexts, capability translates knowledge into practice, autonomy grants independence, and impulsivity serves as a

barrier to rational application. Financial decision-making emerges as the central pathway that integrates these dimensions. Yet, despite extensive research, prior studies remain fragmented. Some focus on digital literacy and empowerment (Rahayu et al., 2023; Morgan et al., 2019), others emphasize capability in decision-making (Tahir et al., 2022; Kumar et al., 2023), and still others examine impulsivity as a mediator (Ottaviani & Vandone, 2018). An integrative framework that brings together cognitive, behavioral, and psychological mediators remains limited.

Accordingly, this study aims to examine a comprehensive mediation framework that connects financial literacy with financial well-being by incorporating digital financial literacy, financial capability, financial autonomy, impulsivity, and financial decision-making among Generation Z in Indonesia.

Study hypotheses are as follows:

- H1: *Financial literacy positively influences digital financial literacy.*
- H2: *Financial capability mediates the association between digital financial literacy and financial decision-making.*
- H3: *Financial literacy has a positive influence on financial autonomy.*
- H4: *Impulsivity mediates the association between financial autonomy and financial decision-making.*
- H5: *Impulsivity mediates the association between digital financial literacy and financial decision-making.*
- H6: *Financial capability mediates the association between financial autonomy and financial decision-making.*
- H7: *Financial decision-making has a positive influence on financial well-being.*
- H8: *Impulsivity mediates the indirect effect of financial literacy on financial well-being via digital financial literacy and financial decision-making.*

H9: *Impulsivity mediates the indirect effect of financial literacy on financial well-being via financial autonomy and financial decision-making.*

H10: *Financial capability mediates the indirect relationship between financial literacy and financial well-being through digital financial literacy and financial decision-making.*

H11: *Financial capability mediates the indirect relationship between financial literacy and financial well-being through financial autonomy and financial decision-making.*

## 2. RESEARCH METHOD

A quantitative survey strategy based on a self-administered questionnaire was applied to analyze the relationships incorporated in the research model. A total of 984 respondents were recruited to represent productive-age individuals in Indonesia, with a specific focus on Generation Z as the cohort most engaged with digital financial services. According to the 2020 Population Census, approximately seventy percent of Indonesians fall into the productive-age range of 15-64 years (BPS, 2021). Respondents were identified using snowball sampling, beginning with initial participants who met the study criteria and then expanding through referrals within their peer networks. This approach is considered suitable for reaching a large number of young respondents across diverse urban regions while maintaining efficiency in data collection. Although snowball sampling does not provide the randomness of probability sampling, the large sample size enhances the robustness of the analysis and provides adequate statistical power for Partial Least Squares (PLS).

All data were gathered using a structured questionnaire disseminated through online channels via social media, email, and messaging applications, which aligns with the digital habits of Generation Z. A five-point Likert scale was applied for all items, ranging from 1 (strongly disagree) to 5 (strongly agree). The instrument included seven latent variables: financial literacy (Lusardi & Mitchell, 2014; OECD, 2022), digital financial literacy (Kumar et al., 2023; Rahayu et al., 2022), im-

pulsivity (Patton et al., 1995; Ottaviani & Vandone, 2018), financial behavior (Kumar et al., 2023), financial autonomy (Xiao & O'Neill, 2016), financial capability (Kumar et al., 2023), and financial well-being (Muir et al., 2017; Rahayu et al., 2023).

The analysis employed PLS-SEM using a disjoint two-stage strategy. In the first stage, the outer model was assessed by examining indicator loadings, internal consistency reliability, convergent validity, and discriminant validity in accordance with the Fornell-Larcker guideline. In the second stage, the structural model was evaluated by estimating the path coefficients and determining the significance of both direct and indirect effects through a bootstrapping procedure with 5,000 resamples. The model's predictive accuracy was then assessed by examining the  $R^2$  values of the endogenous variables.

## 2.1. Respondent profiles

The study involved 984 respondents representing productive-age individuals across major urban regions in Indonesia (Table 1). The sample was predominantly female (63.6%), while males comprised 36.4%. In terms of education, the majority had completed senior high school (59%), followed by undergraduate degrees (24%) and vocational diplomas (14%), with only 3% holding postgraduate qualifications. Most participants were unmarried (93%), reflecting the sample's youthful demographic composition.

Geographically, nearly half of the respondents were based in West Sumatra (47%), while smaller proportions originated from Jakarta (12%), North Sumatra (12%), Yogyakarta and Central Java (10% each), and other provinces ( $\leq 5\%$ ). Regarding living arrangements, 47% lived in their parents' homes, 30% resided in dormitories, and 9% owned their own homes, while the rest lived with family members, in rented housing, or in boarding houses.

Consistent with the educational and age profile, most respondents reported relatively low levels of income and expenditure. About two-thirds (67%) earned less than IDR 2 million per month, and 72% spent below this threshold. Only a small fraction ( $\approx 6\%$ ) reported incomes or expenditures above IDR 6 million. This demographic profile

suggests that the sample is largely composed of young, unmarried, and low-to-middle-income individuals, which aligns with the typical characteristics of Generation Z in Indonesia.

**Table 1.** Profile of respondents

Description	Frequency	Percentage
<b>Gender</b>		
Male	358	36%
Female	626	64%
Grand Total	984	100%
<b>Educational Level</b>		
Vocational level	142	14%
Post-graduate level	31	3%
Undergraduate level	232	24%
Senior High School	578	59%
Junior High School	1	0%
Total	984	100%
<b>Marital Status</b>		
Unmarried	916	93%
Divorce	5	1%
Married	63	6%
Grand Total	984	100%
<b>Region of Domicile</b>		
North Sumatra	117	12%
Banten	16	2%
West Sumatra	458	47%
Yogyakarta	100	10%
Jakarta	122	12%
Central Java	100	10%
West Java	49	5%
Riau	7	1%
East Java	2	0%
East Kalimantan	1	0%
Riau Islands	1	0%
Lampung	2	0%
Nanggroe Aceh Darussalam	1	0%
Bengkulu	1	0%
West Sulawesi	1	0%
Southeast Sulawesi	2	0%
North Sulawesi	1	0%
Bali	1	0%
South Sumatra	1	0%
Jambi	1	0%
Grand Total	984	100%
<b>Residence Status</b>		
Boarding house	16	2%
Rented	43	4%
Dormitory	292	30%
Family Home	82	8%
Parents' Home	466	47%
Own Home	85	9%
Grand Total	984	100%
<b>Average Income per Month</b>		
Less than IDR 2,000,000	655	67%
IDR 2,000,001 – 4,000,000	190	19%

**Table 1 (cont.).** Profile of respondents

Description	Frequency	Percentage
IDR 4,000,001 – 6,000,000	82	8%
IDR 6,000,001 – 10,000,000	33	3%
IDR 10,000,001 – 15,000,000	14	1%
More than IDR15.000.000	10	1%
Grand Total	984	100%
Average Expenditure per Month		
Less than IDR2.000.000	709	72%
IDR 2,000,001 – 4,000,000	212	22%
IDR 4,000,001 – 6,000,000	38	4%
IDR 6,000,001 – 10,000,000	15	2%
IDR 10,000,001 – 15,000,000	6	1%
More than IDR15.000.000	4	0%
Grand Total	984	100%

### 3. RESULT

#### 3.1. First Stage Model

In the first stage, the outer model was examined to confirm the constructs' reliability and validity. The disjoint two-stage procedure was applied to address the issue of higher-order constructs, as outlined in the PLS-SEM literature (Hair et al., 2019). This procedure enables the dimensions of each construct to be validated independently before being aggregated into higher-order variables in the second stage.

Convergent validity was confirmed because most indicators displayed loadings above the com-

monly accepted cut-off value of 0.70. A few indicators had values between 0.50 and 0.70 (e.g., DFK1 = 0.54; FA\_F4 = 0.59; FDM1 = 0.62; IM3 = 0.67; PFW\_MMS5 = 0.53), but these were retained as they contributed positively to the overall reliability and were theoretically relevant. Both Cronbach's Alpha and Composite Reliability (CR) values were consistently greater than 0.70, indicating strong internal consistency. The Average Variance Extracted (AVE) scores were generally above 0.50, with some dimensions slightly below this threshold but still acceptable in an exploratory research context.

Table 2 reports the results of the reliability and convergent validity tests

As shown in Table 2, each construct met the minimum thresholds for reliability and validity, thereby demonstrating that the measurement model is adequate. The latent variable scores generated at this stage were then carried forward to the subsequent phase to estimate the structural model and assess the proposed relationships between the constructs.

#### 3.2. Second Stage Model

In the second stage, the structural model was assessed using the latent variable scores derived from the first stage. This procedure enabled the estimation of higher-order constructs and pro-

**Table 2.** Summary of reliability and convergent validity indicators

Indicators	Outer Loading	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
DFA1	1,000				
DFE1	0,802				
DFE2	0,882	0,823	0,830	0,895	0,740
DFE3	0,892				
DFK1	0,540				
DFK2	0,816				
DFK3	0,795	0,798	0,813	0,862	0,561
DFK4	0,789				
DFK5	0,769				
FA_E1	0,739				
FA_E2	0,753	0,731	0,733	0,832	0,553
FA_E3	0,712				
FA_E4	0,769				
FA_F1	0,720				
FA_F2	0,666	0,646	0,669	0,787	0,483
FA_F3	0,784				
FA_F4	0,595				

**Table 2 (cont.).** Summary of reliability and convergent validity indicators

Indicators	Outer Loading	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
FA_R1	0,854	0,636	0,658	0,806	0,584
FA_R2	0,777				
FA_R3	0,647				
FC1	0,718				
FC2	0,678				
FC3	0,722				
FC4	0,747	0,831	0,837	0,877	0,543
FC5	0,792				
FC6	0,758				
FDM1	0,618				
FDM2	0,701				
FDM3	0,723				
FDM4	0,765				
FDM5	0,758	0,841	0,845	0,880	0,512
FDM6	0,730				
FDM7	0,706				
IM1	0,906				
IM2	0,874				
IM3	0,672				
PFW_FS1	0,671				
PFW_FS2	0,760				
PFW_FS3	0,775				
PFW_FS4	0,681				
PFW_MMS1	0,729	0,798	0,620	0,829	0,498
PFW_MMS2	0,838				
PFW_MMS3	0,754				
PFW_MMS4	0,638				
PFW_MMS5	0,532				
S_A1	0,711	0,724	0,749	0,843	0,643
S_A2	0,840				
S_A3	0,847				
S_BD1	0,799	0,679	0,680	0,824	0,609
S_BD2	0,773				
S_BD3	0,768				
S_FA1	0,819	0,762	0,764	0,863	0,678
S_FA2	0,813				
S_FA3	0,838				

vided a robust framework for testing the hypothesized relationships among financial literacy, digital financial literacy, financial autonomy, financial capability, impulsivity, financial decision-making, and financial well-being. Figure 1 presents the research model tested in the second stage model:

The second stage results confirm that most constructs meet the required reliability and validity (Table 3). Financial Literacy ( $\alpha = 0.819$ , CR = 0.892, AVE = 0.734) and Digital Financial Literacy ( $\alpha = 0.783$ , CR = 0.874, AVE = 0.699) show strong convergent validity across their dimensions.

Financial Capability (CR = 0.877, AVE = 0.543) and Financial Decision Making (CR = 0.880, AVE = 0.513) demonstrate acceptable reliability, though AVE values are close to the threshold. Impulsivity also performed well ( $\alpha = 0.777$ , AVE = 0.693), while Financial Well-being, as a formative construct, is adequately represented by its indicators (loading = 0.729).

Overall, the model demonstrates robust measurement quality, ensuring suitability for subsequent structural analysis. To further verify discriminant validity, the Fornell-Larcker Criterion was employed, with the findings detailed in Table 4.

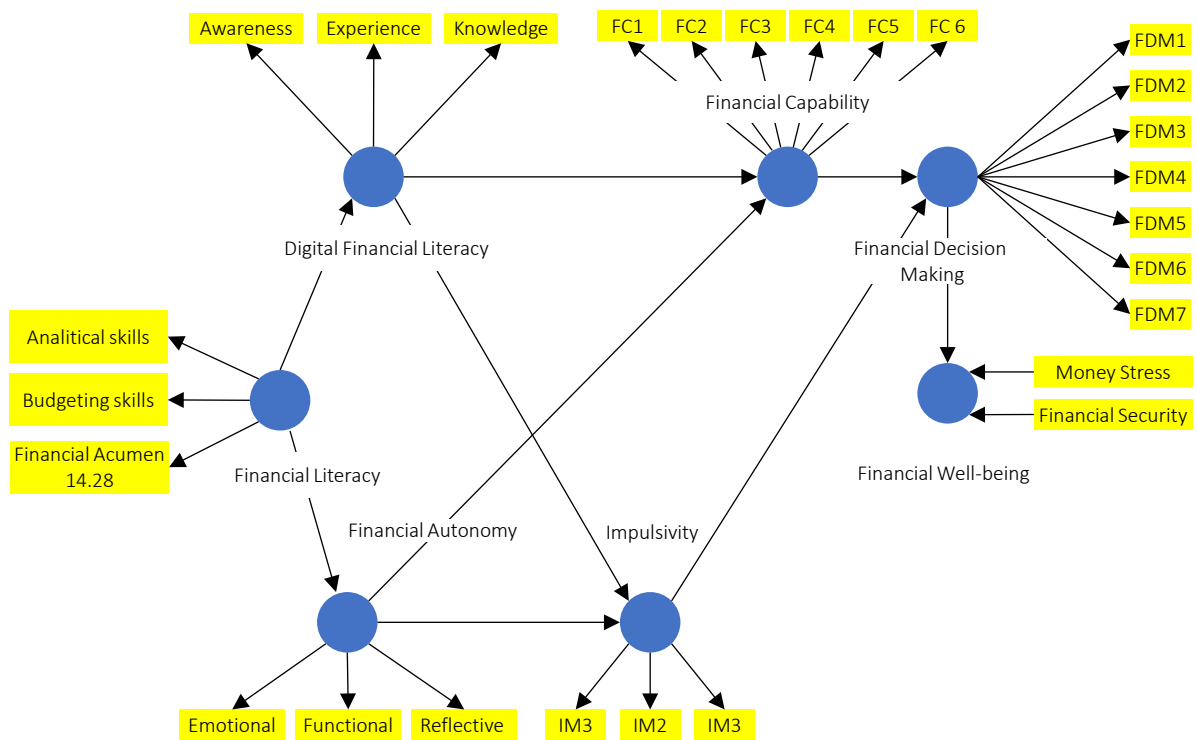


Figure 1. Second stage of testing the model

Table 3. Reliability and validity assessment for the Second Stage Model

Variable	Indicator/Dimensions	Factor Loading	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Financial literacy	Analytical Skills	0,855	0,819	0,819	0,892	0,734
	Budgeting skills	0,846				
	Financial Acumen	0,868				
Digital Financial Literacy	Awareness	0,783	0,783	0,787	0,874	0,699
	Experience	0,873				
	Knowledge	0,850				
Financial Capability	FC1	0,716	0,831	0,833	0,877	0,543
	FC2	0,688				
	FC3	0,739				
	FC4	0,758				
	FC5	0,774				
	FC6	0,744				
Financial Decision Making	FDM1	0,629	0,841	0,844	0,880	0,513
	FDM2	0,707				
	FDM3	0,730				
	FDM4	0,772				
	FDM5	0,755				
	FDM6	0,715				
	FDM7	0,695				
Financial Well-being	money management stress	0,729	0,777	0,782	0,871	0,693
	Financial Security	0,729				
Financial Capability	Functional	0,888	0,831	0,833	0,877	0,543
	Reflective	0,827				
	emotional	0,692				
Impulsivity	IM1	0,841	0,777	0,782	0,871	0,693
	IM2	0,873				
	IM3	0,780				

**Table 4.** The Fornell–Larcker criterion

Variable	Digital Financial Literacy	Financial Autonomy	Financial Capability	Financial Decision Making	Financial Literacy	Impulsivity
Digital Financial Literacy	0,836					
Financial Autonomy	0,454	0,807				
Financial Capability	0,390	0,516	0,737			
Financial Decision Making	0,421	0,591	0,610	0,716		
Financial Literacy	0,614	0,485	0,510	0,510	0,857	
Impulsivity	0,168	0,004	-0,039	-0,053	0,013	0,832

The results indicate that the square roots of AVE appearing on the diagonal are consistently larger than the correlations listed in the corresponding off-diagonal entries. For example, the value obtained for Digital Financial Literacy (0.836) exceeds its correlations with other latent variables (0.454 with Financial Autonomy, 0.390 with Financial Capability, and others). Likewise, Financial Literacy, which has a diagonal value of 0.857, is greater than all of its correlations with the remaining constructs (0.614 with DFL, 0.485 with FA, 0.510 with FC, etc.).

This pattern is consistent across all constructs, including Impulsivity, with a value of 0.832, and shows the lowest correlations with other variables. These results demonstrate that each latent variable is statistically different from the others, thereby providing strong evidence of discriminant validity within the measurement model

To assess the overall fit of the measurement model, several fit indices were reviewed, such as SRMR,  $d_{ULS}$ ,  $d_G$ , Chi-square, and NFI. A lower SRMR value reflects a better degree of fit, whereas NFI values approaching 1 indicate stronger alignment between the model and the data. A summary of these results is provided in Table 5.

**Table 5.** Model fit

Description	Saturated model	Estimated model
SRMR	0,086	0,127
$d_{ULS}$	2,809	6,054
$d_G$	0,457	0,605
Chi-square	2555,254	3143,272
NFI	0,776	0,725

In addition, the explanatory power of the model was evaluated using R2 values of each dependent (endogenous) construct (see Table 6). Digital Financial Literacy (0.377) and Financial Decision

Making (0.373) demonstrate comparatively strong predictive power, whereas Financial Autonomy (0.235) and Financial Capability (0.297) exhibit moderate levels. Financial Well-Being (0.179) indicates limited explanatory strength, and Impulsivity (0.035) shows weak predictability, suggesting the need for additional predictors or further refinement.

**Table 6.** R2 result

Variable	R <sup>2</sup>	R <sup>2</sup> adjusted
Digital Financial Literacy	0,377	0,377
Financial Autonomy	0,235	0,234
Financial Capability	0,297	0,296
Financial Decision Making	0,373	0,372
Financial Well-Being	0,179	0,178
Impulsivity	0,035	0,033

Overall, the model exhibits acceptable fit and explanatory power, with some constructs better explained than others. With the measurement model confirmed to meet the necessary reliability and validity criteria, the subsequent step involves assessing the structural model using path analysis. This stage examines the proposed links among the constructs, evaluates the magnitude and significance of each path, and analyzes how the latent variables relate to one another within the conceptual framework.

According to the results outlined in Table 7, the following section describes the effects of each hypothesized relationship in greater detail.

*H1: Financial literacy positively influences digital financial literacy.*

The results indicate that financial literacy has a significant positive effect on digital financial literacy ( $\beta = 0.614$ ,  $T = 24.591$ ,  $p < 0.001$ ). This finding suggests that individuals with better financial under-

**Table 7.** Path coefficient

Hypothesized Relationships	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ( O/STDEV )	P values
Financial Literacy → Digital Financial Literacy	0,614	0,614	0,025	24,591	0,000
Digital Financial Literacy → Financial Capability → Financial Decision Making	0,120	0,120	0,020	5,951	0,000
Financial Literacy → Financial Autonomy	0,485	0,485	0,029	16,731	0,000
Financial Autonomy → Impulsivity → Financial Decision Making	0,003	0,003	0,003	0,780	0,435
Digital Financial Literacy → Impulsivity → Financial Decision Making	-0,006	-0,006	0,006	1,008	0,314
Financial Autonomy → Financial Capability → Financial Decision Making	0,260	0,260	0,025	10,551	0,000
Financial Decision Making → Financial Well-Being	0,423	0,423	0,032	13,080	0,000
Financial Literacy → Digital Financial Literacy → Impulsivity → Financial Decision Making → Financial Well-Being	-0,002	-0,002	0,002	1,024	0,306
Financial Literacy → Financial Autonomy → Impulsivity → Financial Decision Making → Financial Well-Being	0,001	0,001	0,001	0,804	0,421
Financial Literacy → Digital Financial Literacy → Financial Capability → Financial Decision Making → Financial Well-Being	0,031	0,031	0,007	4,611	0,000
Financial Literacy → Financial Autonomy → Financial Capability → Financial Decision Making → Financial Well-Being	0,053	0,054	0,009	5,906	0,000

standing tend to exhibit stronger digital financial literacy. In other words, a good understanding of basic financial principles helps facilitate the effective use of digital financial platforms. Therefore, *H1* is supported.

*H2: Financial capability mediates the association between digital financial literacy and financial decision-making.*

The indirect effect of digital financial literacy on financial decision-making through financial capability is statistically significant ( $\beta = 0.120$ ,  $T = 5.951$ ,  $p < 0.001$ ). This suggests that understanding digital financial tools not only provides direct benefits but also strengthens financial capability, which subsequently improves the quality of financial decisions. In other words, individuals with stronger digital literacy are more capable of applying their knowledge in practice when they also possess adequate financial capability. Hence, *H2* is supported.

*H3: Financial literacy has a positive influence on financial autonomy.*

Financial literacy significantly influences financial autonomy ( $\beta = 0.485$ ,  $T = 16.731$ ,  $p < 0.001$ ). This indicates that individuals with stronger financial knowledge are more capable of managing their own

finances independently without relying heavily on others. The result highlights that literacy is not only about understanding financial concepts but also about building the confidence and competence required to achieve greater independence in personal financial management. Therefore, *H3* is supported.

*H4: Impulsivity mediates the relationship between financial autonomy and financial decision-making.*

The evidence shows that impulsivity fails to serve as a significant mediator in the relationship between financial autonomy and financial decision-making ( $\beta = 0.003$ ,  $T = 0.780$ ,  $p = 0.435$ ). This suggests that even though individuals with greater financial autonomy typically possess the skills and confidence needed to handle their finances independently, impulsive tendencies do not substantially change how that autonomy is exercised in decision-making. The insignificant mediation effect indicates that impulsivity does not meaningfully account for the link between financial autonomy and decision-making within this study's context. Therefore, *H4* is not supported.

*H5: Impulsivity mediates the association between digital financial literacy and financial decision-making*

The results indicate that the indirect link from digital financial literacy to financial decision-making through impulsivity is not statistically meaningful ( $\beta = -0.006$ ,  $T = 1.008$ ,  $p = 0.314$ ). This implies that even though digital financial literacy provides individuals with the ability to navigate online financial tools and technologies, impulsive tendencies do not substantially disrupt how this knowledge is applied when making financial choices. Hence, impulsivity cannot be confirmed as a mediator in this relationship. Consequently, *H5* is not supported.

*H6: Financial capability mediates the association between financial autonomy and financial decision-making*

The analysis shows that financial autonomy indirectly enhances financial decision-making through financial capability, and this effect is statistically significant ( $\beta = 0.260$ ,  $T = 10.551$ ,  $p < 0.001$ ). This finding indicates that individuals who are able to manage their finances independently tend to make better financial decisions when they also possess strong financial capability. Put differently, financial capability reinforces the connection between autonomy and decision-making, ensuring that independence is effectively translated into thoughtful financial behavior. Therefore, *H6* is supported.

*H7: Financial decision-making has a positive influence on financial well-being.*

The finding confirms that financial decision-making has a significant positive effect on financial well-being ( $\beta = 0.423$ ,  $T = 13.080$ ,  $p < 0.001$ ). This finding highlights that individuals who make careful, informed, and deliberate financial decisions tend to experience better levels of financial well-being. The ability to plan, budget, and allocate resources effectively contributes directly to reducing financial stress and enhancing financial security. Thus, *H7* is supported.

*H8: Impulsivity mediates the indirect effect of financial literacy on financial well-being via digital financial literacy and financial decision-making.*

The extended mediation pathway from financial literacy to financial well-being through digital

financial literacy, impulsivity, and financial decision-making is not statistically significant ( $\beta = -0.002$ ,  $T = 1.024$ ,  $p = 0.306$ ). This result indicates that although financial literacy contributes to digital skills and decision-making, impulsivity does not play a substantial role in shaping this process or influencing the final outcome of financial well-being. The absence of a significant effect suggests that impulsive tendencies do not significantly interfere with the positive influence of financial literacy and digital competence on financial well-being in this context. Therefore, *H8* is not supported.

*H9: Impulsivity mediates the indirect effect of financial literacy on financial well-being via financial autonomy and financial decision-making.*

The results also reveal that the mediation pathway from financial literacy to financial well-being operating through financial autonomy, impulsivity, and financial decision-making is not statistically significant ( $\beta = 0.001$ ,  $T = 0.804$ ,  $p = 0.421$ ). This suggests that although financial literacy contributes to greater financial autonomy, and autonomy is expected to support sound decision-making, impulsive tendencies do not meaningfully influence how these relationships translate into financial well-being. The findings indicate that impulsivity does not play a substantial psychological role in this extended pathway. Therefore, *H9* is not supported.

*H10: Financial capability mediates the indirect relationship between financial literacy and financial well-being through digital financial literacy and financial decision-making.*

The analysis indicates that the extended mediation chain connecting financial literacy to financial well-being via digital financial literacy, financial capability, and financial decision-making yields a statistically significant effect ( $\beta = 0.031$ ,  $T = 4.611$ ,  $p < 0.001$ ). This finding suggests that financial capability is an essential link between literacy and well-being, as it ensures that digital skills are effectively translated into decision-making processes that contribute to positive financial outcomes. The results further underscore that strengthening financial capability is crucial for enhancing the influence of both literacy and digital competence on financial well-being. Therefore, *H10* is supported.

*H11: Financial capability mediates the indirect relationship between financial literacy and financial well-being through financial autonomy and financial decision-making.*

The results also reveal that the mediation pathway from financial literacy to financial well-being through financial autonomy, impulsivity, and financial decision-making is not statistically significant ( $\beta = 0.001$ ,  $T = 0.804$ ,  $p = 0.421$ ). This means that while financial literacy enhances autonomy, and autonomy is expected to influence decision-making, impulsivity does not meaningfully alter how these relationships ultimately contribute to financial well-being. This finding suggests that impulsive tendencies play a limited role in this pathway, indicating that psychological factors such as impulsivity are less relevant in shaping the link between literacy and well-being for this group of respondents. Thus, *H9* is not supported.

## 4. DISCUSSION

The study provides deeper insight into how financial literacy influences digital financial literacy and subsequent outcomes through both direct and indirect pathways. The results confirm that financial literacy significantly enhances digital financial literacy, supporting the idea that a strong foundation in financial principles enables individuals to better navigate digital financial platforms. This is consistent with Li and Meyer-Cirke (2019) and Choung et al. (2023), who demonstrated that understanding budgeting, interest rates, and risk management, combined with digital financial literacy, prepares individuals to use tools such as mobile banking and investment applications effectively. Moreover, digital financial literacy contributes to financial decision-making through financial capability, showing that digital knowledge must be complemented by the skills and confidence to apply it. Together, these findings emphasize the critical role of integrating both knowledge and capability to support sound financial decisions in a digital context.

The analysis additionally demonstrates that financial literacy exerts a direct positive effect on financial autonomy, implying that individuals who possess greater financial knowledge tend to

manage their finances more independently. This result resonates with prior evidence showing that financial literacy fosters confidence and competence in personal financial management (Arellano Espinar, 2014; Lone & Bhat, 2022). However, the mediating role of impulsivity in this relationship is not supported. Similarly, the pathway from digital financial literacy to financial decision-making through impulsivity is also not significant. One plausible explanation is that Generation Z respondents, who are highly accustomed to digital financial platforms, may rely on features such as spending alerts, transaction histories, and automated budgeting tools that help mitigate impulsive tendencies. Cultural and social norms in Indonesia, where family involvement in financial decisions is common, may also buffer the effect of impulsivity on decision-making. Another possibility is methodological, as the measure of impulsivity in this study may capture general behavioral traits rather than specific financial behaviors. These factors could help explain why impulsivity did not emerge as a significant mediator in this context. Importantly, this finding provides new evidence that impulsivity, often highlighted as a barrier to financial decision-making in prior studies, may play a less relevant role in emerging economies where digital adoption is high and social structures provide additional layers of control.

The data strongly support the role of financial capability in linking autonomy to financial decision-making. This indicates that financially autonomous individuals are more likely to make sound financial decisions when they also possess the necessary capability. This result is consistent with Parvathy and Kumar (2022), who demonstrated that financial capability mediates the relationship between autonomy and decision-making, and with Xiao and O'Neill (2016), who emphasized that capability, comprising planning skills, confidence, and money management, provides the foundation that enables autonomy to be transformed into effective and strategic financial behavior.

The study also confirms that financial decision-making directly enhances financial well-being, a result that aligns with earlier evidence showing that various financial competencies, such as financial knowledge, financial socialization ex-

periences, and attitudes toward money, play an important role in shaping individuals' financial well-being (Santini et al., 2019; Utkarsh et al., 2020). In contrast, extended mediation pathways involving impulsivity, whether through financial autonomy or digital financial literacy, are not supported. As with the earlier findings, this may reflect the mitigating role of digital platforms and social context in reducing the influence of impulsivity on financial choices. By comparison, the extended pathways that include financial capability are strongly supported, confirming its position as a crucial bridge connecting literacy

to well-being. These findings highlight the need for comprehensive interventions that go beyond improving financial knowledge and autonomy by also strengthening individuals' financial capability, thereby holistically enabling better financial outcomes. This divergence from previous findings underscores the contextual contribution of this study by showing that in emerging economies such as Indonesia, where digital adoption and family involvement are both strong, impulsivity may not be as influential in shaping financial outcomes as suggested in studies conducted in other contexts.

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## CONCLUSION

This study aimed to examine how financial literacy and digital financial literacy shape financial decision-making and financial well-being through key mediating mechanisms, namely financial capability, financial autonomy, and impulsivity, in the Indonesian context. The findings demonstrate that financial literacy is fundamental in shaping digital financial literacy and strengthening financial capability, which together enhance decision-making and improve financial well-being. Among the mediating variables examined, financial capability consistently emerges as the strongest mechanism linking both literacy and autonomy to better outcomes. By contrast, impulsivity – although theoretically important – does not exhibit a significant role in any of the pathways tested. This divergence highlights the contextual contribution of the study, offering evidence that in Indonesia, where digital adoption is high and family involvement in financial matters is common, impulsive tendencies may be less influential than reported in other settings.

The findings enrich theory by offering an integrated framework that brings together cognitive, behavioral, and psychological components to explain financial well-being. From a practical standpoint, the results underscore the need for financial education programs that integrate both traditional and digital financial literacy while simultaneously strengthening financial capability. Policies should also encourage the integration of capability modules into school and university curricula and promote accessible tools from financial institutions and fintech providers that empower young users.

Despite these contributions, the study has limitations. Its cross-sectional approach limits the ability to observe how financial behaviors or literacy evolve over time, and its focus on Indonesian respondents constrains the extent to which the findings can be applied to other contexts. Furthermore, the use of snowball sampling may introduce referral-related biases, while collecting data exclusively through online channels risks excluding individuals with limited internet access or lower levels of digital literacy. This may result in a sample that is disproportionately composed of respondents who are already active in digital environments. While these choices are consistent with the study's focus on Generation Z, they should be acknowledged as contextual limitations. Future research could adopt longitudinal designs to observe behavioral and literacy changes over time, incorporate additional psychological or contextual factors such as financial anxiety, cultural values, or family norms, and involve larger, more diverse, and probability-based samples to enhance representativeness. Comparative studies across countries with varying financial infrastructures would also provide deeper insights into how literacy, capability, and digital proficiency interact with contextual conditions to shape financial well-being

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