

Financial Resilience and Sustainable Growth of Small and Medium Enterprises: The Role of Digital Finance, Financial Management, and Entrepreneurial Decision-Making



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Abstract

The financial sustainability of small and medium-sized enterprises (SMEs) is of growing importance to ensure their continued growth in times of economic challenges, technological innovation, and limited resources. The study was done on a sample size of 500 small and medium businesses (SMEs) from India, Indonesia, Malaysia, Philippines and Vietnam, to analyze the impact of digital finance, financial management and entrepreneurial decision making on financial resilience and sustainable growth. The research design was quantitative, cross-sectional and the principal constructs were measured using multi-item scales. The proposed relationships were assessed using descriptive statistics, reliability analysis, Pearson correlation, multiple regression and bootstrapped mediation analysis. It was found that digital finance, financial management and entrepreneurial decision-making all had positive significant influences on financial resilience. Financial resilience was the most important factor predicting sustainable growth, with the three explanatory capabilities having significant direct impacts on growth as well. The results of mediation analysis also showed that financial resilience partly mediated the effects of digital finance, financial management, and entrepreneurial decision-making on sustainable growth. The results illustrate that technical financial use, financial practices and entrepreneurial learning ability integrate to enhance the ability of SMEs to absorb shock and to move towards longer-term development. The study underscores the need for a digital financial access program that is coupled to internal financial capability and strategic decision making to foster resilient and sustainable SME growth in the various economic and sectoral environments in Asia.

Keywords: Digital finance; financial resilience; financial management; entrepreneurial decision-making; sustainable growth; SMEs

1. Introduction

Small and medium-sized enterprises (SMEs) play a vital role in creating jobs, innovations, and in generating local value, but they face challenges such as lack of financial resources, limited access to formal credit lines, unpredictable cash flow and susceptibility to economic disruptions. This has put financial resilience – defined as the ability of firms to withstand shocks, continue functioning, raise resources, and rebound without compromising their growth prospects – on the radar. Higher financial resilience helps businesses to sustain operations and seize opportunities when bad times arise (Nassuna et al., 2023). However, sustainable SME growth isn't just about growth, it's also about having the financial resources to ensure continuity, adaptability and responsible resource allocation.

Digital finance is an important tool for SMEs to develop these capabilities. The use of digital payments, online banking and credit for the use of fintech, digital financial-management tools, can help to minimize transaction frictions, make funds more available, and deliver timely financial information. In a severe disruption, Xia et al. (2022) showed that digital finance can help enhance firms' ability to absorb external shocks, thereby bolstering the resilience of companies. The positive effects of digital inclusive finance on financial performance have also been observed in SMEs, where it helps to alleviate financing constraints and open up financial channels for access (Yu et al., 2023). Digitalization plays a crucial role in preserving transactions, securing resources, and adjusting operations (Shinozaki, 2023), particularly in the context of uncertainty, where it becomes especially vital for small businesses.

Access to digital financial services alone, however, may not ensure resilience or durable growth. The allocation, monitoring and planning of financial resources still plays an important part. Managing budget, monitoring cash flow, record keeping, working capital control and financial review can enhance liquidity discipline and increase the financial pressure response ability of SMEs. Bhattacharyya et al. (2023) demonstrated the positive role of working-capital management effects on financial inclusion and financial capability, suggesting that financial

access is complementary to financial capability. Furthermore, financial knowledge helps to enhance financial decisions and resource management, which also supports SME sustainability (Ye & Kulathunga, 2019).

Another essential skill is entrepreneurial decision-making as SMEs are often faced with environments of incomplete information, limited resources, and market volatility. Investment, financing, risk, market opportunities, and resource allocation decisions can ultimately influence the transformation of resources into resilience and growth. The effect of entrepreneurial decision-making styles on the financial performance of SMEs can be measured (Weerasekara & Bhanugopan, 2023). In times of disruption, adaptive decision making can also enhance the ability to become resilient by allowing entrepreneurs to re-prioritize and make strategic decisions in the face of uncertainty (Delladio et al., 2023).

The interplay of these skills is especially pertinent for sustainable growth. To ensure sustainable financing for SMEs, these businesses must consider both their short-term financial needs and long-term sustainability, investment potential, and development priorities (Hakam & Hakam, 2024). Digital inclusive finance can also help to maintain the sustainable development of micro and small enterprises by promoting digital transformation and enhancing enterprise capabilities (Zhang, et al., 2025). However, prior studies have mostly investigated digital finance, financial management, entrepreneurial decision making, resilience and performance from different analytical perspectives. Less emphasis has been placed on the interaction of these factors – whether the direct and indirect effect of digital finance, sound financial management and entrepreneurial decision making on sustainable growth, and whether through financial resilience.

Thus, this study aims to explore the connections between digital finance, financial management, entrepreneurship decision-making, financial resilience, and sustainable growth of SMEs. Financial resilience is denoted as a critical intermediary between financial and managerial competences and future growth. The research brings together the technological, financial, and entrepreneurial aspects of SMEs under one umbrella to understand how SMEs can leverage financial accessibility and the capacity of internal decision-making to enhance the capacity to absorb shocks, recover, and grow in the future.

2. Conceptual Framework and Hypothesis Development

The conceptual framework places financial resilience at the heart of the organization's capacity, which enables that capacity to realize the sustainable growth of SMEs via digital finance and financial management, and entrepreneurial decisions. SMEs are often less well resourced in terms of finance, have less access to external resources and are more likely to be vulnerable to market and liquidity shocks. In such a case, it may be necessary to have the resources available to the firm, but they need to be mobilised, reconfigured and deployed in an effective way if the conditions change. Organizational Resilience, from the capability point of view, refers to the ability of an organization to prepare for disruption, manage adverse events, and react in ways that will maintain the organization's functioning and future development potential (Duchek, 2020). Financial resilience can, therefore, be considered a specific capability that allows SMEs to keep their liquidity, mobilize alternative resources, come back from shocks, and safeguard their capacity to keep growing.

2.1 Digital Finance and Financial Resilience

Accessibility, speed and flexibility of financial transactions and financial information are key ways in which digital finance can improve the resilience of SMEs. Friction in transactions can be alleviated and the ability to track financial conditions more quickly can be achieved by adopting digital payments, mobile & online banking, fintech credit and digital accounting systems. These capabilities can prove useful when the business is involved in uncertain times when funds might need to be mobilized, payment structures need to be amended, or it may be necessary to get information in time for financial decisions. The results of Chinese firms suggest that the digital capability could enhance enterprise sustainability by digitalizing enterprise resilience-related mechanisms, which suggests that digitalization could help improve firms' adaptability and sustainability of performance under changing conditions (Yang & Deng, 2023). In the context of SMEs, information-technology (IT) capabilities have also been linked to higher organizational resilience and better firm outcomes, indicating that digitally-enabled resources help adaptation and organizational outcomes (Trieu et al., 2023).

H1: Digital finance has a positive and significant relationship with the financial resilience of SMEs.

2.2 Financial Management and Financial Resilience

Financial management is a key determinant in how efficiently SMEs plan, allocate, monitor and control scarce financial resources. Formal budgeting, cash-flow monitoring, working-capital management, financial record

keeping, and systematic assessment of investments and financing decisions can enhance liquidity control and alert to potential financial pressures. These practices are particularly critical for SMEs as the financial resources are often low, which makes relatively minor changes operationally relevant. Good financial management can thus reinforce preparedness, enhance the capacity to manage short-term obligations and boost the firms' capacity to react to financial shocks. Empirical studies have shown that financial-management practices are significantly related to enterprise performance, which further supports the need for having the financial ability in the enterprise to achieve a successful outcome (Mang'ana et al., 2023).

H2: Financial management has a positive and significant relationship with the financial resilience of SMEs.

2.3 Entrepreneurial Decision-Making and Financial Resilience

Financial and organizational resources are deployed under uncertainty via entrepreneurial decision making, and it is the strategic mechanism that provides this. SME owners and managers routinely make decisions on risk, funding, investment, market opportunities, and resource allocation—often in a limited, incomplete, or ambiguous way. The capacity to assess new options, unearth new opportunities, foresee potential threats, and make quick changes to business decisions can boost the firm's resilience to disruption. The entrepreneurial orientation has been correlated with developing the capabilities of resilience related to manufacturing SMEs with mechanisms related to innovation, learning, and adaptive resource use (Al-Hakimi et al., 2021). Entrepreneurial decision-making can, therefore, be a complement to digital and financial capabilities to gauge the effectiveness of the reallocation of available resources when facing less favourable business conditions and when new opportunities arise.

H3: Entrepreneurial decision-making has a positive and significant relationship with the financial resilience of SMEs.

2.4 Financial Resilience and Sustainable Growth

Financial resilience will be directly linked to sustainable growth as companies that are able to absorb shocks and rebuild operations will have not only the ability to maintain investment capacity but also to maintain employment, market connections and long-term strategic plans. Sustainable growth isn't about short-term profits, it's about financial stability and the ongoing reinvestment, expansion of productive capacity and development opportunities. Resilience minimizes the risk of short-term events having a long-term impact on the company's productive or financial foundation. The findings show that entrepreneurial resilience and financial capability are correlated with sustainable performance, thereby reinforcing the argument that entrepreneurial resilience can enhance smaller businesses' sustainable performance in uncertain conditions (Alshebami & Murad, 2022).

H4: Financial resilience has a positive and significant relationship with the sustainable growth of SMEs.

2.5 Mediating Role of Financial Resilience

The framework also suggests a mediating effect of financial resilience between the three organizational capabilities and sustainable growth. Digital finance can enable quicker access to transactions, information and financing; financial management can help improve liquidity discipline and resource control; and entrepreneurial decision making can help improve strategic adaptation. The role of these capabilities in long-term growth, however, may be partly related to how well the firm can handle and rebound from financial shocks. Having in turn, financial resilience is the process through which technological, financial and entrepreneurial resources are transformed into continuity, capacity for recovery, and ultimately more sustainable development.

This mediating view also acknowledges the possibility of the 3 capabilities having a direct impact on sustainable growth. Digital finance can be more efficient and facilitate market access, financial management can be more effective in the use of resources, and entrepreneurial decision-making can be more effective in exploiting opportunities. The model thus also allows for the partial mediation of resilience via financial resilience, which is not always the full mediation pathway.

H5: Financial resilience mediates the relationships of digital finance, financial management, and entrepreneurial decision-making with the sustainable growth of SMEs.

3. Methodology

3.1 Research Design

The quantitative cross-sectional research design was employed to explore the relationships between the study variables (digital finance, financial management, entrepreneurial decision making, financial resilience and sustainable growth in small and medium sized enterprises-SMEs). Financial resilience was defined as an intermediate organizational capability between financial and managerial capabilities and sustainable growth. The analytical method used in this study was descriptive statistics, correlation analysis, multiple regression and mediation analysis to analyze both direct and indirect relationship between study variables.

3.2 Sample and Data Collection

The analytical sample consisted of 100 SMEs from each of the five countries – India, Indonesia, Malaysia, the Philippines and Vietnam. A total of 346 small enterprises (with 10–49 employees) and 154 medium-sized enterprises (with 50–249 employees) were included in the sample. The participating companies were engaged in retail and wholesale trade, business services, manufacturing, food and hospitality, and ICT/digital services.

Information was taken from people who had enough information about the financial and operational activities of the participating enterprises. Prior to analysis, records were screened for completeness, consistency of classification by firm size, and for duplicate observations. Structural differences among the SMEs included in the study were addressed by including the following contextual variables: firm size, sector and country.

3.3 Measurement of Research Constructs

The five principal constructs were measured using multi-item indicators on a five-point response scale ranging from 1 to 5, with higher scores indicating stronger levels of the respective construct. Each construct consisted of five items.

The use of digital payments, mobile and online banking, fintech credit, digital financial-management tools and integration of digital finance into the daily life of business were captured in digital finance. Financial management involved budgeting, cash-flow control, records, working-capital management and financial assessment prior to preparation of major financial investments or financing proposals.

Entrepreneurial decision making included information-based decisions, risk assessment, opportunity evaluation, adaptability and long-term resource allocation. Financial resilience measured SME's ability to pay their bills during emergencies, to have emergency liquidity, access to alternative financing, to recover operations and withstand financial pressure to sustain essential activities. Sustained sales growth, profit reinvestment, job creation or productive capacity growth, market growth while maintaining financial stability, and responsible long-term resource utilization were all elements of sustainable growth.

Complementary firm-level indicators such as the proportion of firms using digital payments, budgeting practices, cash-buffer duration, shock-recovery time, sales growth, profit growth, employment growth and green investment were employed for interpretation of the main constructs.

3.4 Scale Construction and Data Assessment

Five items were averaged to give the composite scores for digital finance, financial management, entrepreneurial decision making, financial resilience, and sustainable growth. Cronbach alpha was used to test the internal consistency and was found to be acceptable with a value greater than 0.70.

The data were also checked for missing observations, duplicate data, inconsistencies in enterprise classification and distributional characteristics. Means, standard deviations, ranges, and frequencies were used to describe the variables. Relationships of the composite measures with the relevant behavioural or performance indicators were further explored to determine whether the constructs showed theoretically consistent relationships.

3.5 Statistical Analysis

The characteristics of enterprises and the distribution of the principal variables were summarized using descriptive statistics. Pearson correlation coefficients were then calculated to assess the magnitude and direction of bivariate correlations between digital finance, financial management, entrepreneurial decision-making, financial resilience and sustainable growth.

Multiple linear regression analysis was performed twice. The first model explored the relationship between digital finance, financial management and entrepreneurial decision-making and financial resilience. The second

model employed the three explanatory constructs and financial resilience for estimating sustainable growth. Control variables included SME size, sector and country. To assess for multicollinearity among predictors, variance inflation factors were assessed.

Lastly, mediation analysis was used to identify if financial resilience mediated the relationship between the two path factors, digital finance, financial management, and entrepreneurial decision-making, towards the outcome of sustainable growth. Direct, indirect and total effects were estimated, and the significance of the indirect effects was assessed by bootstrap confidence intervals. This procedure allowed the examination of the partial mediation of financial resilience in the proposed framework.

4. Results

4.1 Sample Characteristics

The analysis included 500 SMEs distributed equally across India, Indonesia, Malaysia, the Philippines, and Vietnam, with 100 enterprises from each country. Small enterprises constituted 69.2% of the sample, while medium-sized enterprises represented 30.8%. As shown in Table 1, retail and wholesale firms formed the largest sectoral group (26.6%), followed by business services (24.4%), manufacturing (20.4%), food and hospitality (18.6%), and ICT/digital services (10.0%). Private companies represented 43.2% of enterprises, while 35.2% were sole proprietorships and 21.6% were partnerships. Almost half of the firms were family-owned (48.6%), 23.8% were engaged in export activity, and 37.0% reported experiencing a recent financial shock. The enterprises employed an average of 67.79 workers and had operated for an average of 12.46 years.

Table 1. Profile of Participating SMEs

Characteristic	Category	n	%
Country	India	100	20.0
	Indonesia	100	20.0
	Malaysia	100	20.0
	Philippines	100	20.0
	Vietnam	100	20.0
SME size	Small	346	69.2
	Medium	154	30.8
Sector	Retail/Wholesale	133	26.6
	Business Services	122	24.4
	Manufacturing	102	20.4
	Food/Hospitality	93	18.6
	ICT/Digital Services	50	10.0
Ownership	Private company	216	43.2
	Sole proprietorship	176	35.2
	Partnership	108	21.6
Family-owned	Yes	243	48.6
Export activity	Yes	119	23.8
Recent financial shock	Yes	185	37.0

4.2 Descriptive Statistics and Scale Reliability

The five principal constructs displayed closely comparable mean values, ranging from 3.028 for entrepreneurial decision-making to 3.068 for financial management. Financial resilience had a mean of 3.049, while sustainable growth averaged 3.038. As reported in Table 2, all five scales showed strong internal consistency. Cronbach's alpha ranged from 0.864 for sustainable growth to 0.890 for financial resilience, substantially exceeding the conventional minimum threshold of 0.70.

Table 2. Descriptive Statistics and Reliability of the Main Constructs

Construct	Items	Mean	SD	Min.	Max.	Cronbach's α
Digital Finance	5	3.058	1.049	1.00	5.00	0.873
Financial Management	5	3.068	1.062	1.00	5.00	0.883
Entrepreneurial Decision-Making	5	3.028	1.046	1.00	5.00	0.872
Financial Resilience	5	3.049	1.084	1.00	5.00	0.890
Sustainable Growth	5	3.038	1.026	1.00	5.00	0.864

The construct measures also showed theoretically consistent relationships with complementary firm-level indicators. Digital finance was strongly associated with the proportion of digital payments used by firms ($r = 0.775, p < 0.001$). Financial resilience was positively related to the number of months of available cash buffer ($r = 0.623, p < 0.001$) and negatively related to shock-recovery time ($r = -0.631, p < 0.001$). Sustainable growth was positively associated with sales growth ($r = 0.685$), profit growth ($r = 0.651$), employment growth ($r = 0.583$), and green-investment intensity ($r = 0.641$); all relationships were significant at $p < 0.001$.

4.3 Correlation Analysis

The correlation analysis in Table 3 indicated positive relationships among all principal constructs. Financial resilience was significantly associated with digital finance ($r = 0.371, p < 0.001$), financial management ($r = 0.408, p < 0.001$), and entrepreneurial decision-making ($r = 0.330, p < 0.001$). The strongest bivariate relationship was observed between financial resilience and sustainable growth ($r = 0.504, p < 0.001$).

Digital finance was also positively associated with sustainable growth ($r = 0.335, p < 0.001$), as were financial management ($r = 0.317, p < 0.001$) and entrepreneurial decision-making ($r = 0.248, p < 0.001$). Figure 1 visually demonstrates the consistently positive correlation structure and highlights the comparatively stronger position of financial resilience in relation to sustainable growth.

Table 3. Pearson Correlations among the Main Constructs

Variable	1	2	3	4	5
1. Digital Finance	1.000				
2. Financial Management	0.191***	1.000			
3. Entrepreneurial Decision-Making	0.106*	0.241***	1.000		
4. Financial Resilience	0.371***	0.408***	0.330***	1.000	
5. Sustainable Growth	0.335***	0.317***	0.248***	0.504***	1.000

Note: * $p < 0.05$; *** $p < 0.001$.

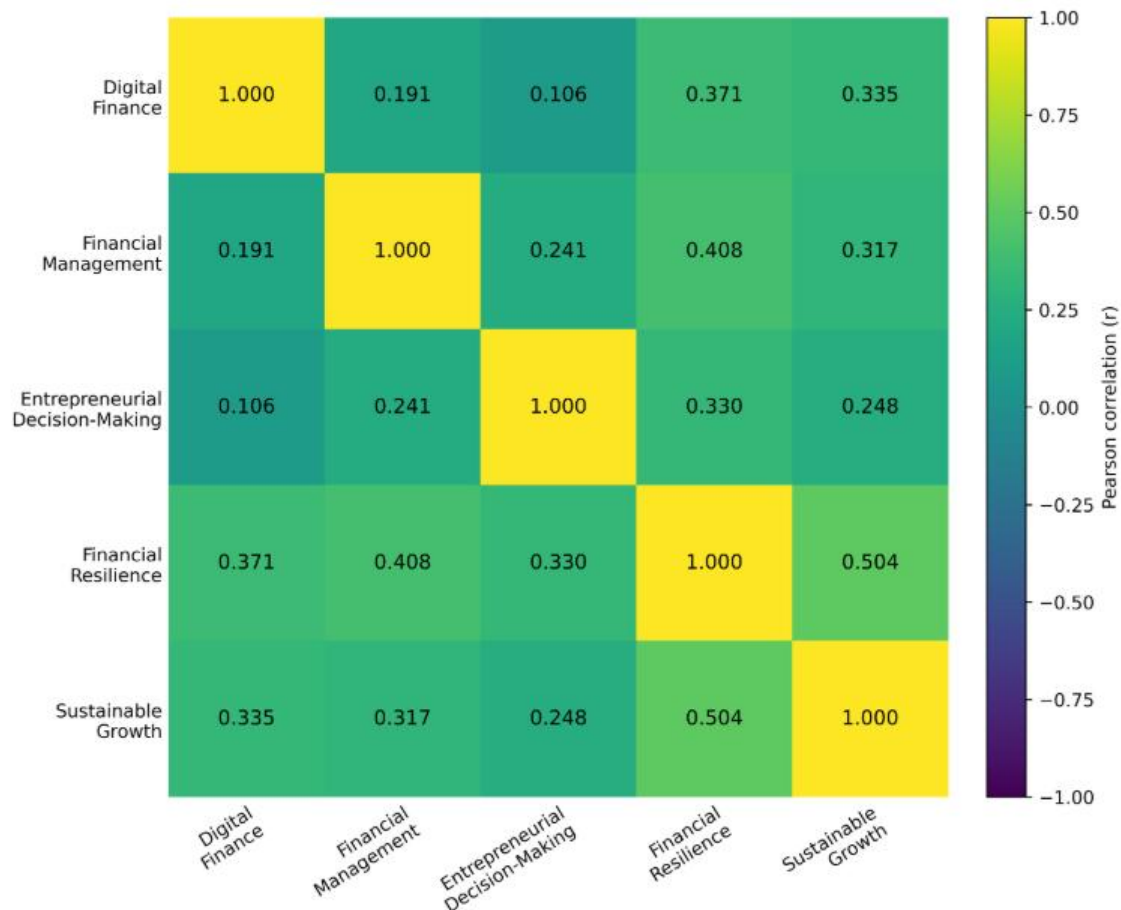


Figure 1. Correlation matrix of the principal constructs

4.4 Regression Analysis

Multiple regression analysis was used to estimate the effects of digital finance, financial management, and entrepreneurial decision-making while controlling for SME size, country, and sector. The first model predicting financial resilience was statistically significant, $F(12,487) = 20.65, p < 0.001$, and explained 33.7% of the variance in financial resilience ($R^2 = 0.337$; adjusted $R^2 = 0.321$).

As shown in Table 4, digital finance had a significant positive effect on financial resilience ($B = 0.295, \beta = 0.285, p < 0.001$). Financial management produced a slightly stronger standardized effect ($B = 0.298, \beta = 0.291, p < 0.001$), while entrepreneurial decision-making also contributed significantly ($B = 0.232, \beta = 0.224, p < 0.001$). Thus, stronger digital-financial capability, more structured financial management, and stronger entrepreneurial decision-making were each independently associated with greater SME financial resilience.

The second model predicting sustainable growth was also significant, $F(13,486) = 16.83, p < 0.001$, explaining 31.0% of its variance ($R^2 = 0.310$; adjusted $R^2 = 0.292$). Financial resilience emerged as the strongest predictor of sustainable growth ($B = 0.346, \beta = 0.365, p < 0.001$). Digital finance remained significant ($B = 0.161, \beta = 0.165, p < 0.001$), together with financial management ($B = 0.111, \beta = 0.115, p = 0.007$) and entrepreneurial decision-making ($B = 0.082, \beta = 0.084, p = 0.039$).

Table 4. Regression Results for Financial Resilience and Sustainable Growth

Outcome	Predictor	B	SE	β	t	p
Financial Resilience	Digital Finance	0.295	0.039	0.285	7.522	<0.001
	Financial Management	0.298	0.040	0.291	7.454	<0.001
	Entrepreneurial Decision-Making	0.232	0.040	0.224	5.845	<0.001

Sustainable Growth	Digital Finance	0.161	0.040	0.165	4.024	<0.001
	Financial Management	0.111	0.041	0.115	2.720	0.007
	Entrepreneurial Decision-Making	0.082	0.040	0.084	2.073	0.039
	Financial Resilience	0.346	0.044	0.365	7.897	<0.001

Note: Models controlled for SME size, country, and sector.

Variance inflation factors ranged from 1.041 to 1.437, indicating no meaningful multicollinearity problem. Breusch–Pagan tests were nonsignificant for both the financial-resilience model ($p = 0.554$) and the sustainable-growth model ($p = 0.615$), providing no evidence of problematic heteroscedasticity. The controlled relationships are summarized graphically in Figure 2.

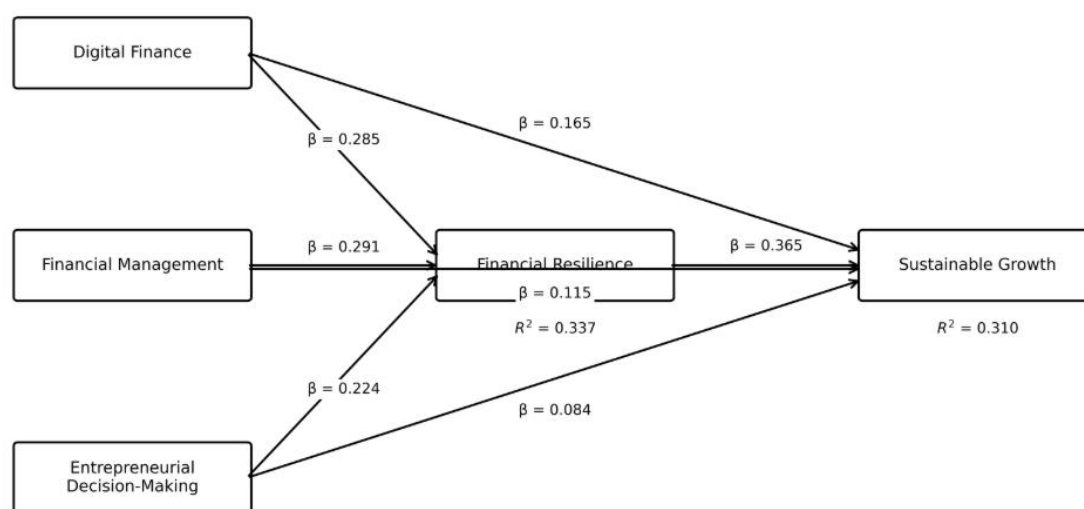


Figure 2. Standardized coefficients in the controlled analytical model

4.5 Mediation Effect of Financial Resilience

Bootstrapped mediation analysis with 5,000 resamples showed that financial resilience significantly transmitted part of the effects of all three explanatory capabilities to sustainable growth. As presented in Table 5, the indirect effect of digital finance was 0.102, with a 95% bootstrap confidence interval of [0.069, 0.138]. The indirect effect of financial management was 0.103 [0.070, 0.140], while entrepreneurial decision-making produced an indirect effect of 0.080 [0.050, 0.115]. Because none of these confidence intervals included zero, all three indirect pathways were statistically supported.

Table 5. Bootstrapped Mediation Effects through Financial Resilience

Predictor	Direct Effect	Indirect Effect	95% CI for Indirect Effect	Total Effect
Digital Finance	0.161	0.102	[0.069, 0.138]	0.263
Financial Management	0.111	0.103	[0.070, 0.140]	0.214
Entrepreneurial Decision-Making	0.082	0.080	[0.050, 0.115]	0.163

The direct effects of digital finance, financial management, and entrepreneurial decision-making remained statistically significant after financial resilience entered the sustainable-growth model. The mediation was therefore partial rather than complete. Approximately 38.8% of the total digital-finance effect, 48.2% of the

financial-management effect, and 49.4% of the entrepreneurial decision-making effect on sustainable growth operated through financial resilience. Taken together, the findings indicate that financial resilience functions as a central mechanism through which financial and entrepreneurial capabilities are converted into more sustainable SME growth.

4.6 Hypothesis Testing Summary

The results of the hypothesis testing are summarized in Table 6. Digital finance, financial management, and entrepreneurial decision-making each showed significant positive relationships with financial resilience, supporting H1, H2, and H3. Financial resilience also demonstrated a significant positive relationship with sustainable growth, supporting H4. The bootstrapped indirect effects of digital finance, financial management, and entrepreneurial decision-making on sustainable growth through financial resilience were all statistically significant, providing support for H5.

Table 6. Summary of Hypothesis Testing

Hypothesis	Relationship	Statistical Evidence	Decision
H1	Digital Finance → Financial Resilience	$\beta = 0.285, p < 0.001$	Supported
H2	Financial Management → Financial Resilience	$\beta = 0.291, p < 0.001$	Supported
H3	Entrepreneurial Decision-Making → Financial Resilience	$\beta = 0.224, p < 0.001$	Supported
H4	Financial Resilience → Sustainable Growth	$\beta = 0.365, p < 0.001$	Supported
H5	Financial Resilience mediates the relationships of DF, FM, and EDM with Sustainable Growth	DF: 0.102, 95% CI [0.069, 0.138]; FM: 0.103, 95% CI [0.070, 0.140]; EDM: 0.080, 95% CI [0.050, 0.115]	Supported

5. Discussion

The results support the conceptual framework proposed. To support the H1–H3, digital finance and financial management were each positively associated with financial resilience, as were entrepreneurial decision-making. Financial resilience, in turn, demonstrated the highest positive link with sustainable growth, supporting H4. Financial resilience also significantly mediated part of the effects of all three explanatory capabilities on sustainable growth, in support of H5, in the mediation analysis. In summary, these findings suggest that, besides financial and technological capabilities, the organizational ability to absorb financial shocks, keep liquidity, adapt decisions and recover from a crisis, while retaining future growth possibilities is crucial for the sustainable development of SMEs.

Digital finance was an essential force for financial resilience as well as for sustainable growth. If broader adoption of digital payments, online banking, fintech credit, digital accounting and other tools leads to better financial resilience, this has positive implications for SMEs' ability to maintain financial continuity in the face of disruptions. Digital systems can help lower transaction time, make liquidity more accessible, increase financial transparency, and enable companies to act faster to adjust to the operating environment. Behavioural relevance of the construct is reinforced by the strong association between digital finance and share of digital payments. The same applies to Indonesian MSMEs, where evidence shows digitalization can enhance enterprise resilience by helping to ensure enterprise continuity and adaptation during severe economic disruptions (Supari & Anton, 2022). The ongoing relevance of digital finance in the sustainable-growth model suggests that it is not just a means to a quick end, but can also play a role in market growth over a longer period of time, in operational efficiency, and in financial stability.

The financial management and financial resilience relationship was slightly stronger than that of digital finance and entrepreneurial decision-making. The discovery underlines the significance of internal financial discipline to build the ability of SMEs to face shocks. Effective budgeting, regular cash-flow tracking, control of working capital,

financial record keeping and financial review can boost a company's capacity to predict cash-flow shortfalls and take appropriate action at the right time. This is confirmed by the complementary indicators which showed that larger cash buffers were linked to higher financial resilience as well as shorter recovery periods. These findings suggest that access to finance is not the only way to build resilience - it is also about the ability to plan, monitor and allocate resources. The studies on sustainable financing also highlight the importance of the internal financial capacity and enhancement of financing mechanisms for the long-term development of SMEs (Hossain et al., 2023).

Financial resilience also had an important contribution from entrepreneurial decision making. Its standardized effect was smaller than the digital financial and financial management; however, it was still statistically significant after controlling for the control variables. It indicates that the risk assessment skills and the way the entrepreneur interprets information, evaluates opportunities, adjusts to changes, and allocates resources strategically, are associated with SMEs' ability to handle adversity. When firms are faced with uncertainty, decision making becomes all the more crucial as financial resources are not the only factors that affect outcomes; they have to be decided on how and when to do so. The insights from the literature on SME resilience also indicated that entrepreneurial orientation and adaptive strategic behaviour are the two key factors that can enhance the resilience of SMEs when being disrupted (Zighan et al., 2022). Thus, the findings of the present study lend support to the notion that entrepreneurial judgment is a supplementary ability in addition to financial and technological resources.

Financial resilience was the most predictive of sustainable growth (standardised coefficient 0.365). Moreover, it is seen that its importance is reflected in a bivariate correlation of 0.504 with sustainable growth, and is the highest correlation with any of the main constructs. This discovery implies that the SMEs which are able to keep their vital functions going, obtain emergency supplies, withstand shocks, and regain vitality are more likely to continue selling, reinvesting profits, expanding productive capacity and further developing in the longer term. This is further supported by the negative relationship between financial resilience and shock-recovery time. More resilient SMEs seem to be better able to transform recovery capacity into more stable growth paths. This aligns with other research that indicates that the resilience of SMEs during crises relies heavily on their internal financial and management resources that facilitate continuity, adaptation, and efficient resource utilization (Swatdikun et al., 2024).

Even when financial resilience is added to the regression model, the direct impact of digital finance, financial management and entrepreneurial decision making on sustainable growth continued to be significant. This means a partial and not total mediation. Each capability leads to growth in at least two ways in practice. First of all, it directly influences enterprise growth. Secondly, it boosts financial resilience, leading to sustainable growth. Mediated proportions were around 38.8% in the domain of digital finance; 48.2% in financial management and 49.4% in entrepreneurial decision-making. The relatively high mediated shares of financial management and entrepreneurial decision-making indicate that resilience is a pathway that is especially relevant in the transformation of internal capabilities into longer term outcomes. More broadly, digital technologies can impact resilience, but also can yield other operational benefits such as increased customer accessibility, speed of transactions and information flows. These effects align with evidence from developing countries which suggests that digital technologies can enhance SMEs' capacity to adapt and to respond to disruption arising from a crisis (Khalil et al., 2022). The support for H5 further reinforces the conceptual positioning of financial resilience as an intermediate capacity, rather than simply a business outcome. Digital, financial and entrepreneurial skills seem to have sustainable-growth benefits as they enhance the firm's capacity to buffer and rebound from financial shocks.

The findings together suggest a combination explanation of SME sustainable growth. Digital finance is a technological and financial access, financial management is a disciplined use of resources, and entrepreneurial decision making is a strengthened strategic adaptation. These capabilities come together in financial resilience, which allows companies to remain resilient to financial stress and bounce back after a financial shock but still have the ability to grow in the future. This result reveals, therefore, that sustainable growth cannot be seen as a consequence of market performance or as a function of financing availability only. Instead, it grows out of a blend of digital competence, in-house financial control, entrepreneurial skills, and resilience. This holistic view enables us to understand the significance of how SMEs with similar resources can have different long-term growth trajectories and the need to build organizational competencies to link financial inclusion to suitable decision-making and adaptive capacity.

5.1 Theoretical Implications

The results add to the knowledge about sustainable SME growth by providing evidence that digital, financial and entrepreneurial abilities cannot be considered as independent factors influencing SME performance. Their joint action is partly on the financial side and it appears that resilience plays an integrative role in the capability growth relationship. Digital finance opens up access and transactional flexibility, financial management improves

the internal management of resources, and entrepreneurial decision making allows resources to be allocated adaptively. Financial resilience links these capabilities and involves the ability to maintain the continuity of operations in the face of financial stress.

The results also distinguish between direct capability effects and resilience-mediated effects. Even when financial resilience was added to the model, digital finance, financial management, and entrepreneurial decision-making had strong linkages with sustainable growth, indicating that the impact of financial resilience is not fully accounted for. Rather, the findings indicate that there is a partial-mediation argument that posits that technological, managerial, and entrepreneurial capacities have independent effects on growth, yet they also enhance resilience. This distinction is theoretically important because it suggests that sustainable growth is produced through multiple organizational pathways rather than through a single financial mechanism.

Another contribution is to shift financial resilience from being a crisis management tool to a growth tool. Its relatively robust linkage to sustainable growth suggests that its ability to withstand shocks and resume operations could also help maintain the capacity to invest, market continuity and future expansion options. Resilience can thus be viewed as a protective and development capacity of SMEs.

5.2 Managerial and Policy Implications

The results have the following practical implications for the owners of SMEs and their managers. Digital-finance adoption should not be seen as just the launch of a new payment or banking technology, but rather as part of financial-management practices. Digital payments, online banking, fintech credit and accounting systems will be more likely to add value in the organization if they are supported by regular cash-flow monitoring, formal budgeting and monitoring of working capital and structured investment decisions. Together, managers should build up their digital and financial skills.

Liquidity preparedness is also highlighted because of its prominent role in the financial resilience. Adopting the following steps will help SMEs build resilience: - have sufficient cash buffers, - diversify sources of finance, - keep track on financial commitments, and - have contingency plans for times of disruption. These practices should be complemented by entrepreneurial decision making by conducting systematic risk assessment, and constant reappraisal of resource priorities in the event of changes in market and financial conditions.

The findings indicate that, for policy makers and financial institutions, a new and comprehensive digital-finance infrastructure is not enough to ensure sustainable SME development. Financial management education, digital accounting support, easy access to emergency finance and programmes to enhance strategic decision making capability of SME owners and managers can strengthen financial inclusion initiatives. This all-in-one support can empower enterprises to transform access to finance into increased resilience and sustainable growth.

6. Limitations and Future Research

There are some restrictions that offer scope for further research. The cross-sectional design first of all reveals relationships between the main constructs at one point in time and cannot also clarify their temporal sequence. The effects of digital finance and financial management could be studied in relation to subsequent changes in resilience and growth (longitudinal research). Second, while the analysis includes SMEs from five Asian economies, incorporates control variables to account for the differences between the economies, it does not directly model the institutions and regulations. The relationships observed here could be examined in future studies to verify if financial regulation, digital infrastructure, access to formal credit and national entrepreneurial ecosystems help to moderate these relationships.

Third, the sustainable growth was measured largely from an economic and enterprise-development perspective such as sales, profit, jobs, market growth, financial security, and the use of resources. The framework could be expanded in future to include more environmental and social sustainability indicators. Finally, future studies can explore the differences in the strength of the mediation among industries, firm ages, ownership structures, exporting status, and SMEs. This would help to get a deeper insight into the conditions that enable financial resilience to drive organizational capabilities to sustainable growth.

7. Conclusion

The findings highlight that financial resilience is one of the key mechanisms between digital finance, financial management and entrepreneurial decision-making and sustainable growth of SMEs. All these abilities were

important in maintaining financial resilience and resilience was the strongest indicator of sustained growth. It shows that besides having access to financial resources or digital tools, the ability to absorb shocks, keep liquidity, strategically adapt and recover without compromising future development of SMEs becomes crucial for the long-term development.

Digital finance deepened resilience and its growth through faster transactions, enabling more financial access, and increased use of technology in day-to-day business operations. In particular, financial management was mentioned as playing a significant role in developing resilience through the process of budgeting, cash-flow tracking, working-capital management and planned resource allocation. Entrepreneurial decision making also played a role by allowing firms to make risk assessments, risk evaluations, and adapt to changing conditions.

The mediation analysis also revealed that all three explanatory capacities mediated some of the effects on sustainable growth. This is a confirmation that investment in digital, financial and entrepreneurial skills have a direct and indirect effect on growth, through a boost in resilience. The results thus reinforce the need for an integrated approach to sustainable SME growth that is generated as a result of the interaction between technological capability, financial discipline within the company, strategic decision making and adaptive capacity of companies.

Practical point: SMEs should enhance the uptake of digital financial services, combined with effective financial management and entrepreneurs' decision-making based on evidence. However, digital finance, financial-management training and resilience-building programs must be scaled up at policy and financial institutions level to aid this process. The model can be expanded in future with additional institutional predictors, broader sustainability measures of the environment and society and with longitudinal data.

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