



(RESEARCH ARTICLE)



## Financial literacy and environmental dynamism: The moderating role of digital financial capability on the performance of women-owned SMEs in Calapan City, Oriental Mindoro, Philippines

Nicole Morta Bon, Ciara Christia Delen Marave, Zeth Rhandel Manalo Martinez \*, Jovy Ann Magbuhos Maulion and Maria Cristina Flores Melo

*Divine Word College of Calapan Inc., School of Business Hospitality Tourism Management, Calapan City, Republic of the Philippines.*

World Journal of Advanced Research and Reviews, 2026, 29(03), 563-583

Publication history: Received on 28 January 2026; revised on 07 March 2026; accepted on 09 March 2026

Article DOI: <https://doi.org/10.30574/wjarr.2026.29.3.0542>

### Abstract

This study investigated the factors affecting the business performance of women-owned Small and Medium Enterprises (SMEs) in Calapan City, specifically examining the roles of financial literacy, dynamic business environment, financial capability, and digital financial capability. Utilizing a quantitative descriptive-correlational research design, data were gathered from 75 women-owned SMEs through a self-structured survey questionnaire. Data analysis was conducted using PROCESS Model 1 to determine both the direct and moderating effects of the variables. The results revealed that financial literacy and the dynamic business environment do not have statistically significant direct effects on SME performance, suggesting that neither financial knowledge alone nor environmental shifts guarantees improved business outcomes. Furthermore, financial capability was found to have no significant moderating effect on the relationship between financial literacy and performance. However, Digital Financial Capability emerged as a significant moderator of the relationship between a Dynamic Business Environment and SME Performance ( $p < .05$ ). This indicates that women entrepreneurs who effectively leverage digital financial tools are better equipped to respond to market volatility, technological advancements, and competitive pressures. These findings highlight the critical role of digital proficiency in enhancing the resilience and sustainability of women-led enterprises. Consequently, the study proposes the "Womentum Program for Women of Calapan," a digital financial literacy training framework designed to empower women entrepreneurs with the practical digital competencies necessary to thrive in a dynamic economy.

**Keywords:** Financial Literacy; Dynamic Environment; Financial Capability; Digital Financial Capability; SME Performance; Calapan City

### 1. Introduction

In the global context, women-owned SMEs have emerged as a possible force for inclusive growth, employment, and innovation. SMEs are the most common form of enterprise, accounting for more than 90% of all businesses and at least 50% of employment in the world; therefore, they play a crucial role in the economic development process [1]. However, access to finance, digital adoption, and enterprise sustainability remain key barriers to female entrepreneurship. Enhanced financial literacy combined with digital financial capabilities is identified as beneficial for strengthening SME resilience and competitiveness within increasingly dynamic contexts [2]. More precisely, entrepreneurial innovation and digital adoption are identified as core variables that positively enhance performance and growth prospects among globally women-owned firms [3]. For women in developing countries, entrepreneurship is usually born out of limited formal job opportunities, and while their businesses grow, they also hire people from other vulnerable groups; it acts

\* Corresponding author: Zeth Rhandel M. Martinez

not only as an instrument of economic inclusion but also serves as a bottom-up approach toward social development [4].

At the national level, SMEs are the backbone of the Philippine economy, comprising 99.6% of registered enterprises and providing 63% of total employment [5]. Women entrepreneurs have much to offer to this sector, but they remain constrained by structural issues related to a lack of access to capital, a lack of financial capability, and gaps in digital financial capability [6]. Philippine research identifies that financial literacy significantly relates to entrepreneurs' improved decision-making, risk management, and long-term financial strength [7]. In the same way, digital financial capability has been identified as leading to the facilitation of businesses to leverage the full potential of digital payment channels and financial technologies, particularly in the post-pandemic recovery period [8]. Furthermore, the extremely dynamic nature of the Philippine business environment demands that entrepreneurs adapt to continuous changes in technology, economic conditions, and markets, which have direct consequences for SME performance [9].

Locally, a survey of microenterprise managers in Calapan City disclosed that, although the overall financial well-being of the respondents was "read as good," basic components of digital financial capability, such as awareness, knowledge, hands-on know-how, and capacity to resist fraud, contributed a great deal to enhancing financial well-being. Local empirical data signifies a strong positive correlation between certain facets of digital financial capability and financial well-being, hence reinforcing the need to integrate digital competencies within local entrepreneurship development programs. Furthermore, from the research, it was revealed that entrepreneurs lacked the capability in using cloud computing in making decisions and how cashless payments help to prevent fraud [10], which reinforces certain skill deficits that complicate optimum functioning. Atienza et al. [11] also discovered a direct positive relationship between the use of digital tools and business development among local micro and small businesses, while Cruzado et al. [12] found that MSMEs still cite financial limitations as the biggest deterrent to access to funding. Silva et al. [13] also observed that digital financial capability had a significant influence on the financial behavior of students in Calapan City. The findings above collectively indicate the growing importance of financial and digital financial competencies but also indicate the existing gaps among local businesses, especially women-owned SMEs that are often faced with cumulative barriers. Although these new elements have been introduced, there is still a gap in the research.

Most of the existing research has examined financial literacy, financial capability, or digital financial capability separately. Few researches have examined the relationship between financial literacy and the dynamic environment to improve SME performance outcomes through financial capability and digital financial capability as underlying factors. Even more, the dynamic environment, as the underlying factor that influences these factors, has been neglected. At the local level, few researches have explored MSMEs and some sectors in Calapan City, but there is little evidence that has specifically targeted women-owned SMEs, which are the biggest contributors to inclusive growth and community development. Filling this gap is important to understand how financial literacy and the dynamic business environment influence SME performance through the moderating roles of financial capability and digital financial capability among women business owners in Calapan City. This study investigates the moderating effects of financial capability and digital financial capability on the relationships between financial literacy and dynamic environment. The performance of the final output of the study is the proposed Digital Financial Literacy Training Program, referred to as the "Womentum Program for Women of Calapan."

---

## 2. Review of related literatures

### 2.1. Financial Literacy

According to Fernando [15], financial literacy refers to the ability to understand and effectively use various financial skills, including personal financial management, budgeting, and investing. Aini and Fikri [16] showed that financial literacy is positively associated with both digital financial literacy and financial planning and control. In addition, financial planning and control have a positive mediating effect on the relationship between financial literacy and digital financial literacy. Likewise, Raghunath et al. [17] found in their study that as the level of financial knowledge increases, it is likely to result in the diversification of investments and increased confidence in managing debt behavior. Moreover, Zafari and Saidalavi [18] found that financial literacy plays a crucial role in overcoming the barriers of financial accessibility for women entrepreneurs. This indicates that by improving the financial literacy of women, they are able to make better financial decisions, acquire credit opportunities, and improve the overall sustainability of their business.

Some empirical researches also show the positive correlation between financial literacy and the performance of SMEs. Nadir et al. [19] stressed that financial literacy improves the internal financial capabilities of SMEs by increasing budgeting, debt management, and sensitivity to risk. In addition, financially literate managers are more able to tap

formal sources of funding and deal with uncertainties, thus avoiding the possibility of financial failure. In support of the argument, Yakob et al. [20] found that financial literacy has a significant and positive influence on the performance of small and medium-sized enterprises (SMEs). By using their regression results, they found that despite the control variables being considered, financial literacy remained a significant factor in determining business success.

In line with the above findings, Abdallah et al. [21] found that financial literacy has a positive influence on SME performance, as higher financial literacy levels enhance the capacity of entrepreneurs to handle finances and overall business performance. Moreover, the study revealed that financial access moderates the relationship between financial literacy and enterprise performance, as adequate financial service access strengthens the relationship between financial literacy and enterprise performance. Likewise, Bancoro [22] found that MSME entrepreneurs in Negros Oriental showed promising levels of financial literacy in managing debts, using savings, and controlling expenditures. Nonetheless, there were large gaps in long-term planning, budgeting, and risk management, thus underscoring the importance of improved financial education and support services to improve the financial capability of small business owners.

Furthermore, Bakashaba et al. [23] established that digital finance access acts as a mediator between financial literacy and the performance of SMEs in Uganda. The findings of the study indicated that financial literacy enhances business performance indirectly through enhanced access to digital financial services such as Momo Pay and mobile money. However, Engström and McKelvie [24] indicated that financial literacy is a predictor of financial performance but not a predictor of business growth for micro-enterprises operating in the informal economy. The study also indicated that having role models predicts return on assets rather than other performance measures. This is important in emphasizing that although financial literacy is important for effective financial management, its influence on enterprise growth may be limited.

The studies above emphasize that financial literacy is a basic tenet for enhancing the performance of women-owned SMEs, particularly when considered in relation to digital literacy, which is important for promoting strategic decision-making and business resilience.

## **2.2. Dynamic Environment**

Empirical evidence from Haryono et al. [25] shows that digital ability is an important mechanism by which financial literacy improves the performance of SMEs in dynamic environments. Likewise, Purwanti et al. [26] have emphasized the point that environmental dynamism increases the importance of digital marketing ability and the performance of SMEs, thereby suggesting that those SMEs with superior digital adaptability perform better in dynamic environments. In support of the above, Mukhtar [27] has stated that adaptive and innovative abilities are regarded as essential for the survival and performance of SMEs in turbulent markets, since dynamic environments raise the level of required strategic flexibility. Likewise, Andrade et al. [28] found that technological ability strengthens organizational ambidexterity, especially in industries with high environmental dynamism, suggesting that technological adaptability is an essential requirement for success. Hadi [29] has further revealed that under high environmental dynamism, exploitative and organizational learning capabilities enhance SME performance, indicating the importance of continuous innovation and learning in turbulent markets.

Okeyo [30], within the African perspective, demonstrated that dynamism, complexity, and munificence in the environment have positive and significant effects on SME performance, particularly at the financial level, given the need to address market volatility and resource availability for sustainability. Augustie [31] supported the fact that dynamism in the environment moderates the relationship between innovativeness and performance because of the increased volatility of markets, which amplifies the need for innovation. However, Liang et al. [32] suggested that dynamism in the environment supports digitalization capability, which, when combined with entrepreneurial orientation, enhances sustainable performance. Zhang [33] also identifies that entrepreneurial behavior, especially innovation and risk-taking, is more successful in a highly unstable environment because of open innovation and strategic responsiveness. In summary, these studies reveal that dynamic environments, especially those characterized by technological and market dynamism, compel SMEs to build digital capabilities, financial capabilities, and adaptiveness for the sustainability of performance and competitiveness.

## **2.3. Financial Capability**

Financial capability is an all-encompassing concept that takes into consideration the personal elements a person holds, such as knowledge, skills, attitudes, and behaviors, and the personal and organizational support available to an individual or business owner to make well-informed financial decisions and promote financial wellness, according to

Sun et al. [34]. Furthermore, Aziz et al. [35] found that improved financial capability leads to effective financial management, eventually translating into financial and social sustainability.

When considering Small and Medium Enterprises, financial capability goes beyond financial literacy in practical financial matters. According to Zottel et al. [36], financial capability could be defined as the skill and capacity to use both knowledge and external opportunities for emerging and sustainable businesses. The opportunity to act, which refers to access to financial services, is as or even more important than one's capacity to act, further emphasizing this notion. According to Sherraden et al. [37], financial capability is greatly linked with less or lowest experiences of economic hardship, further emphasizing the role of financial capability in financial well-being and resilience, which is an aspect that is discussed further in this article, in reference to financial inclusion and other financial concepts, via financial capability measurements and instruments.

Various empirical studies have identified some variables that have an influence on financial capability. Khan et al. [39] identified that behaviors in finance and financial satisfaction act as major predictors of financial capability; however, the influence of financial advice and training improves financial self-efficacy and performance in financial management. In the study of Scott et al. [40], people who possess better financial literacy and financial behavior typically demonstrate lower financial distress in everyday financial choices; in difficult financial choices, therefore, facilitating external contexts are necessary in the form of strong economies and resource availability in finance. Other variables, according to the study of Handijaya et al. [41], include education level, employment stability, and financial experience. Significantly, financial capability plays the moderating role in the relationship that exists between financial literacy, environmental dynamics, and the performance of SMEs. The implication here is that the effect that financial literacy and environmental dynamics have on the performance of the SMEs is mediated by the degree of financial capability that exists within the given context. In support of this argument, Sherraden et al. [37] noted that the degree to which financial capability influences the well-being of the firm depends on environmental considerations, such as financial stress.

#### **2.4. Digital Financial Capability**

Research suggests that digital financial capability (DFC) plays a significant role in mediating between internal and external factors in improving and in having better performance in SMEs. The importance of DFC is seen in a study by Li et al. [42], which illustrates that entrepreneurs who possess a high level of DFC are able to convert their fundamental knowledge about finances into effective and diversified digital financial practices to achieve better performance in their businesses. The mediator role of DFC is also proven in a study by Vieira et al. [43], which illustrates that DFC is the core mediator between financial literacy and good financial management in digital platforms.

Apart from inherent capabilities, the mediating role of DFC becomes even more important in dynamic digital environments. Wang [44] found that even though digitalization enhances access to credit and financial services, improvement in performance is achieved only when entrepreneurs have sufficient DFC to interact with digital credit platforms and e-payment systems. It is clear that dynamism in the environment affects SME performance indirectly in the presence of sufficient digital financial capability. The role of DFC as a mediator is not the same everywhere. Urooj et al. [45] highlighted that institutional and regulatory environments play a critical role in shaping the role of DFC as a mediator to enhance entrepreneurial success, as a weak institutional environment may limit the role of DFC as a mediator to connect performances and environments.

In spite of this increasing amount of literature on DFC, there are still research gaps existing at the local and contextual levels. On this basis, studies including Rukmani et al. [46], which proved that digital tool adoption displays a positive relationship with business performance, show that existing research has mostly concentrated on identifying direct associations related to digital capability and performance. In this case, another study made by Luo et al. [47] proved that there was a significant direct relationship between digital financial capability and entrepreneurial performance. However, at this point in time, this study did not consider DFC in forming this connection. Already, in the context of the Philippines, particularly among women-owned businesses, including SMEs, existing research has not yet examined the extent to which DFC displays an intermediating role within different socio-economic and institutional circumstances.

#### **2.5. SME Performance**

In the study of entrepreneurship, SME performance is generally understood as the extent to which a firm reaches its intended objectives through the efficient management of its available resources [48]. Recent literature suggest that performance specifically SME Performance is not a singular and only

metric; but rather it is a complex outcome that includes financial well-being, operational stability, and the ability to

adapt within a volatile market. Research suggests that have been saying that modern SME performance is being defined now by a firm's ability to have sustainable growth in a volatile business environment. For instance, Halimah and Suryani [49] argue that it's no longer just about basic survival, but how well a business can handle external shifts with the use of different financial services in daily operations. In real time we are seeing and experiencing where traditional ways of growth and growing is being integrated or at least replaced, or at least supported by digital integration.

Take digital financial services as an example; Halimah and Suryani [49] suggests that it had become such an essential tool on daily operations. These tools let owners track financial data in real-time and manage cash flow more precisely, which helps them make better decisions. But the literature also warns that technology isn't a "magic fix" on its own. Bakashaba et al. [50] found that for women entrepreneurs, actually seeing performance gains from these tools depends heavily on how much they already know about finance. Their study shows that when an owner's baseline literacy is high, using digital tools leads to a real, measurable boost in results.

This connection between digital tools and business outcomes is also something Mangifera et al. [51] looked at. They observed that SMEs using FinTech tend to be more responsive to what the market actually wants. This responsiveness leads to actual gains, like better net profits and higher sales, showing that going digital helps both short-term goals and long-term staying power. Similarly, Kusumawardhani et al. [52] emphasize that these digital systems basically act as a backup for an owner's own skills. They conclude that as an entrepreneur gets better at using these systems, the firm's financial performance usually follows that same upward path.

When these findings are viewed collectively, it becomes clear that SME performance in the current era is less about the sheer volume of financial resources and more about the efficiency of digital utilization. The studies reviewed here suggest that the path from financial knowledge to actual performance is mediated by a specific set of digital skills. Therefore, SME performance serves as the ultimate benchmark for how effectively an entrepreneur can leverage their DFC (Digital Financial Capability) to navigate environmental dynamism and apply their financial knowledge to real-world business challenges.

## **2.6. Theoretical framework**

Women-owned small and medium-sized enterprises (SMEs) play a crucial role in promoting inclusive growth and local development. However, their performance is often influenced by a combination of knowledge, capabilities, and the dynamic business environment. Despite the increasing attention given to women entrepreneurship, limited studies have focused on how financial and digital literacies contribute to SME performance, particularly in the context of local economies such as Calapan City. To address this gap, this study adopts Human Capital Theory, the Resource-Based View (RBV), and Dynamic Capabilities Theory to explain the role of financial literacy, digital literacy, financial capability, and digital financial capability in shaping SME performance.

### **2.7. Human Capital Theory**

Human Capital Theory, introduced by Becker (1964), highlights the idea that investments in education, training, and skills enhance productivity and performance. In the context of women-owned SMEs, financial literacy and digital literacy represent critical forms of human capital. These competencies allow entrepreneurs to make informed financial decisions, manage risks, adopt digital technologies, and implement innovative business practices. Research supports that entrepreneurs with stronger literacy skills are more likely to achieve higher levels of growth, sustainability, and competitiveness in their enterprises (Wuttaphan, 2017). Thus, Human Capital Theory provides a foundation for understanding how knowledge and skills directly influence SME performance.

### **2.8. Resource-Based View**

Starting from the idea that not all company assets are equal, Barney's 1991 framework suggests lasting edge comes from resources hard to copy or replace. What makes a firm stand out lies less in what it does and more in what it owns - especially when those holdings are useful, scarce, tough to imitate, and without alternatives. In this study, financial capability and digital financial capability are considered important internal resources for women entrepreneurs. When women business owners managed well, these capacities helps them to respond faster, adapt better, and grow stronger over time. Evidence gathered across multiple real-world cases supports this (Adam et al., 2022) found clear links between strong financial habits and long-term achievement. Women entrepreneurs who use these resources properly are more likely to succeed, which supports the importance of Research Based View in this research.

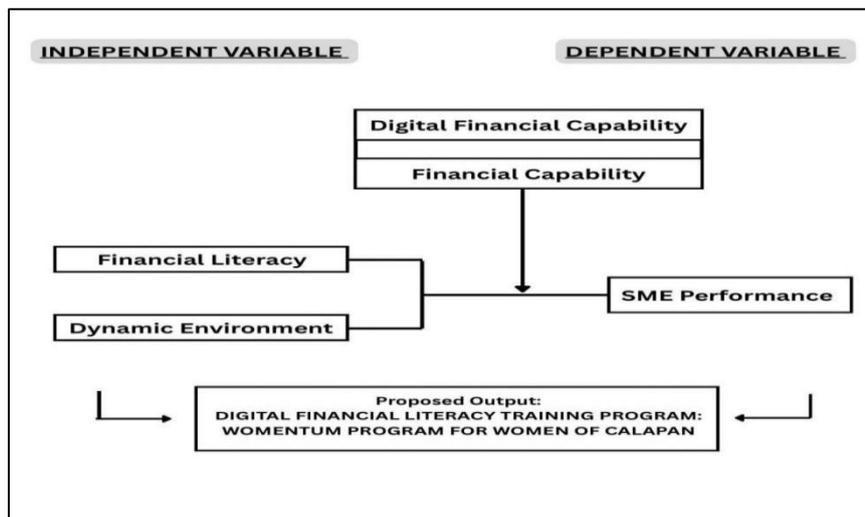
## 2.9. Dynamic Capabilities Theory

Dynamic Capabilities Theory, first advanced by Teece, Pisano, and Shuen (1997), explains how organizations adapt, integrate, and reconfigure internal and external resources in response to rapidly changing environments. For women-owned SMEs in Calapan City, external conditions such as technological change, market competition, and shifting customer preferences present constant challenges. Entrepreneurs who possess strong financial and digital competencies are better equipped to sense opportunities, seize them, and transform their business practices accordingly (Eisenhardt & Martin, 2000). This perspective emphasizes that SME performance is not only determined by resources but also by the entrepreneur's ability to adapt and reconfigure those resources under dynamic conditions.

## 2.10. Scope and limitation

This study investigates the effects of financial literacy and a dynamic business environment on the performance of women-owned SMEs in Calapan City, with financial capability and digital financial capability as moderating variables. The respondents consist of all 75 registered women-owned SMEs in the city, and data are gathered through a structured survey questionnaire covering demographic characteristics, financial literacy, dynamic environment, financial capability, digital financial capability, and SME performance. The study is limited to women-owned SMEs within Calapan City and excludes enterprises outside the area and male-owned businesses. The use of self-reported data may result in response bias, while time and budget constraints may limit the depth of analysis. Moreover, the study focuses only on selected variables and does not consider other factors such as market competition and government policies. Despite these limitations, the study provides relevant insights to support policy formulation and programs for women's entrepreneurship development.

## 2.11. Conceptual framework



**Figure 1** Conceptual Framework of the Study on the Performance of Women-Owned SMEs in Calapan City

The diagram above illustrates the conceptual framework of the study, showing the relationship between the independent variables and the dependent variable. The independent variables include financial literacy and a dynamic business environment, while the dependent variable is the performance of women-owned small and medium enterprises (SMEs) in Calapan City.

The framework further identifies financial capability and digital financial capability as moderating variables that influence the strength and direction of the relationships between the independent variables and SME performance. Financial capability moderates the relationship between financial literacy and SME performance, while digital financial capability moderates the relationship between the dynamic business environment and SME performance. This highlights the importance of entrepreneurs' ability to apply financial knowledge and digital financial tools in enhancing business performance.

The final output of the study is the proposed Digital Financial Literacy Training Program, referred to as the "Womentum Program for Women of Calapan." This program is designed to strengthen both financial and digital financial capabilities

of women entrepreneurs, enabling women-owned SMEs to become more adaptive, competitive, and resilient in an increasingly dynamic and digital business environment.

## 2.12. Hypothesis

- H1: Financial Literacy has a significant effect on the performance of women-owned SMEs.
- H2: Dynamic Environment has a significant effect on the performance of women-owned SMEs.
- H3: Financial capability moderates the relationship between financial literacy and the performance of women-owned SMEs.
- H4: Digital financial capability moderates the relationship between the dynamic environment and the performance of women-owned SMEs.
- H5: Digital Financial Capability significantly moderates the relationship between Financial Literacy and SME performance
- H6: Financial Capability significantly moderates the relationship between Dynamic Environment and SME performance.

## 2.13. Statement of the problem

This study aims to determine the factors affecting the performance of women-owned small and medium enterprises. Specifically, it seeks to answer the following questions:

- What is the level of financial literacy of women-owned SMEs?
- What is the extent of the dynamic business environment experienced by women-owned SMEs?
- What is the level of financial capability of women-owned SMEs?
- What is the level of digital financial capability of women-owned SMEs?
- What is the level of performance of women-owned SMEs?
- Does financial capability significantly moderate the relationship between:
  - Financial Literacy and SME Performance?
  - Dynamic Business Environment and SME Performance?
- Does digital financial capability significantly moderate the relationship between:
  - Financial Literacy and SME Performance?
  - Dynamic Business Environment and SME Performance?
- Based on the findings, what Financial Management Program can be proposed?

---

## 3. Materials and methods

The present study is anchored on the framework developed by Asandimitra et al. 2024 [3], which investigates the multidimensional factors influencing the performance of women-owned SMEs. Their model establishes five key constructs—financial literacy, digital literacy, financial capability, digital financial capability, and the dynamic environment—as critical determinants of business success. While Asandimitra et al. 2024 [3] examine direct and indirect effects, the current research adapts this framework to the specific socio-economic context of Calapan City, Philippines. Specifically, this study extends their model by examining financial capability and digital financial capability as moderating variables, determining if these internal competencies amplify the effects of financial literacy and environmental dynamism on SME performance. Thus, the work of Asandimitra et al. 2024 [3] serves as the primary conceptual foundation, guiding the operationalization of variables and providing a validated benchmark for the current analysis."

This study utilized a quantitative descriptive-correlational research design. It is descriptive as it profiles the levels of financial literacy, capability, and performance among respondents, and correlational as it examines the relationships and interactions between these variables. Specifically, the study employed Moderation Analysis (PROCESS Model 1) to determine if financial and digital financial capabilities significantly alter the relationship between independent factors and SME performance.

The study was conducted in Calapan City, Oriental Mindoro, Philippines. Calapan City was selected as the research site due to its status as the commercial and administrative hub of the MIMAROPA region, hosting a high density of registered women-owned SMEs that operate in a rapidly evolving local economy.

The respondents consisted of 75 women owners of registered and operational Small and Medium Enterprises (SMEs) in Calapan City. A purposive sampling technique (total enumeration within defined criteria) was employed. To be included in the study, participants had to meet the following criteria: Must be a female owner or manager. The business must be a registered SME (DTI/BPLO). The business must have been operational for at least one (1) year.

Data were gathered using a self-structured survey questionnaire adapted from the validated instruments of Asandimitra et al. 2024 [3]. The questionnaire was divided into three sections: Section 1: Measurement of Variables (Financial Literacy, Dynamic Environment, Financial Capability, and Digital Financial Capability). Section 2: SME Performance Indicators (Sales growth, customer base, and stability). The instrument utilized a five-point Likert scale, and its reliability was established through Cronbach's Alpha to ensure internal consistency. Upon securing the necessary permits from the LGU and relevant authorities, the researcher distributed the questionnaires either in person or through digital platforms. Informed consent was obtained from all participants, ensuring that their participation was voluntary and that their data would remain confidential in compliance with the Data Privacy Act of 2012. The data were analyzed using the following statistical tools: Weighted Mean and Standard Deviation, used to describe the levels of literacy, capability, and performance. Pearson's  $r$  Correlation: Used to check the initial relationships between variables. Moderated Regression Analysis (Hayes' PROCESS Macro Model 1):

#### 4. Results and discussion

**Table 1** Level of financial literacy of women-owned SMEs

Statement	Mean	Rank	Description	Interpretation
1. I save for my future goals	4.75	1	Strongly Agree	Very High Level
2. I always choose the right insurance	4.36	4	Strongly Agree	Very High Level
3. I have a bond or contract with other business owners	3.91	5	Agree	High Level
4. I allocate an emergency fund for my business	4.55	2	Strongly Agree	Very High Level
5. I conduct a feasibility study before I open my business	4.37	3	Strongly Agree	Very High Level
Overall Mean	4.39		Strongly Agree	Very High Level

Legends: Strongly Agree=4.21-5.00 Agree=3.41-4.20 Neutral=2.61-3.40 Disagree=1.81-2.60 Strongly Disagree=1.00-1.80

The results in Table 1 show that the statement "I save for my future goals" obtained the highest mean score of 4.75, interpreted as Strongly Agree, and ranked first among the indicators of financial literacy. This finding indicates that women-owned SME owners demonstrate strong saving behavior and a high level of financial discipline. Saving for future goals reflects effective financial planning and preparedness for potential financial uncertainties, which are essential for business sustainability. This result is consistent with Nadir et al. (19), who emphasized that consistent saving practices significantly contribute to financial stability and long-term business performance. The strong emphasis on savings suggests that respondents prioritize future-oriented financial decisions, enabling them to manage risks and support business growth.

In contrast, the statement "I have a bond or contract with other business owners" recorded the lowest mean score of 3.91, categorized as Agree. Although respondents generally recognize the importance of contractual agreements, the relatively lower mean suggests limited engagement in formal business contracts. This implies a gap in the application of formal financial and legal practices among women-owned SMEs. Formal contracts are important in ensuring legal protection, accountability, and stability in business relationships. This finding supports the observation of Engström and McKelvie (24) that financial knowledge does not always translate into business expansion or the use of formal arrangements, particularly among small and informal enterprises. This result highlights the need to strengthen formal business practices among women entrepreneurs.

Overall, the table reflects an overall mean of 4.39, interpreted as Strongly Agree, indicating a high level of financial literacy among women-owned SMEs in Calapan City. This suggests that respondents generally demonstrate sound financial knowledge and practices, particularly in saving, emergency fund allocation, feasibility analysis, and informed decision-making. The high overall mean implies that women entrepreneurs possess the necessary financial skills to

support sustainable business operations. This finding reinforces the importance of financial literacy in enhancing business resilience and long-term performance.

**Table 2** Extent of the dynamic business environment experienced by women-owned SMEs

Statement	Mean	Rank	Description	Interpretation
1. The rate of change in the supply of products	3.55	4	Quick	High Extent
2. The rate of change at which consumers request product innovations	3.65	2	Quick	High Extent
3. The rate of change of government regulations governing business operations	3.52	5	Quick	High Extent
4. The level of technological advancement in products and services	3.64	3	Quick	High Extent
5. The rate of change in competition within the local market industry	3.77	1	Quick	High Extent
Overall Mean	3.626		Quick	High Extent

Legends: Very Fast = 4.21 - 5.00 Quick = 3.41 - 4.20 Simple = 2.61-3.40 Slow = 1.81 - 2.60 Very Slow = 1.00-1.80

The results in Table 2 show that the statement "The rate of change in competition within the market industry" got the highest mean score of 3.77, which means it is high extent. It is ranked first among the indicators of the environment. This means that women-owned SMEs in Calapan City think that the competition in the market is changing very fast. They need to stay alert and adjust quickly to what the customers want, what their competitors are doing, and what is happening in the market. This is what the women-owned SMEs in Calapan City are doing. The local market competition is changing rapidly. Women-owned SMEs in Calapan City have to be ready to change with it. This result is similar to what Purwanti et al [26] found, that someone pointed out that things are changing fast in the environment. Small and medium-sized enterprises, or SMEs, really need to adapt and change their strategies and use digital technology to keep up with other SMEs. This means SMEs have to be ready to make big changes to survive and thrive among SMEs.

The statement "The rate of change of government regulations governing business operations" got the score of 3.52. This is also high extent. This means that even though government regulations are changing, people think these changes are happening because of competition and technology. These changes are still important; therefore, small and medium-sized enterprises or SMEs need to keep up with government regulations and be ready to make changes when the rules change. This way, SMEs can avoid problems with their business. This is what Mukhtar et al. [27]. SMEs must stay informed about government regulations governing business operations and adjust to these changes.

Overall, the table reflects an overall mean of 3.63, interpreted as high extent, indicating that women-owned SMEs in Calapan City operate in a moderately to highly dynamic business environment. Frequent changes in competition, technology, and consumer demands highlight the need for continuous adaptability and innovation to maintain competitiveness.

**Table 3** Level of financial capability of women-owned

Statement	Mean	Rank	Description	Interpretation
I always choose low-cost products without sacrificing quality	4.03	5	Agree	High Level
I seek information before making financial decisions	4.65	3	Strongly Agree	Very High Level
I always track daily expenses	4.72	1	Strongly Agree	Very High Level

I seek information before deciding which financial product to buy/use	4.64	2	Strongly Agree	Very High Level
I don't borrow more money than I can afford	4.59	4	Strongly Agree	Very High Level
Overall Mean	4.53		Strongly Agree	Very High Level

Legends: Strongly Agree=4.21 - 5.00 Agree= 3.41- 4.20 Neutral=2.61-3.40 Disagree=1.81- 2.60 Strongly Disagree=1.00-1.80

The results in Table 3 show that the statement “I always track my daily expenses” obtained the highest mean score of 4.72, which is interpreted as a Very High Level of financial competency. It is ranked first among the indicators, signifying that women-owned SME owners in Calapan City demonstrate exceptional financial discipline in monitoring their daily costs. Tracking expenses is a fundamental pillar of financial competency as it allows business owners to manage cash flows effectively, plan future activities, and prevent unnecessary financial leaks. This finding is consistent with the study of Wirokusuma and Handayani [53], which emphasized that consistent expense monitoring is a key driver in improving financial management practices and overall business performance. The result suggests that respondents are highly proactive in maintaining financial transparency within their operations.

On the other hand, the statement “I always choose low-cost products without sacrificing quality” recorded the lowest mean score of 4.03, which is interpreted as a High Level. Although the respondents still exhibit a strong degree of cost-conscious behavior, its position as the lowest rank suggests that this practice is not as consistently applied as expense tracking. This relative gap may be influenced by external market constraints, such as the limited availability of affordable yet high-quality raw materials in the local area. This finding supports the results of Zottel et al. [54], who noted that SMEs often face significant hurdles in balancing cost efficiency with quality due to marketplace limitations. This implies that while the entrepreneurs are competent, they may need better access to diverse supplier networks to optimize their purchasing strategies.

Overall, the table reflects an overall mean of 4.53, which corresponds to a Very High Level of financial competency among women-owned SMEs in Calapan City. This indicates that the respondents generally possess superior financial skills, particularly in the areas of expense monitoring, informed decision-making, and responsible financial behavior. The very high overall mean implies that these women entrepreneurs are well-equipped to support sustainable and resilient business operations. However, the results also highlight a specific opportunity for improvement in cost-efficient purchasing to further solidify their financial performance and competitiveness in a dynamic market.

**Table 4** Level of digital financial capability of women-owned SMEs

Statement	Mean	Rank	Description	Interpretation
1. I know how to calculate the interest rate	4.77	1	Strongly Agree	Very High Level
2. I know that inflation can reduce the value of money	4.57	2	Strongly Agree	Very High Level
3. I use a finance application or program	4.32	4	Strongly Agree	Very High Level
4. I invest on digital financial program	3.89	5	Agree	High Level
5. I use financial technology products and services for online payments via mobile phone and computer	4.45	3	Strongly Agree	Very High Level
Overall Mean	4.40		Strongly Agree	Very High Level

Legends: Strongly Agree=4.21 - 5.00 Agree= 3.41- 4.20 Neutral=2.61-3.40 Disagree=1.81- 2.60 Strongly Disagree=1.00-1.80

Table 4 shows the average perception of the respondents regarding their digital financial capability. The results show that the statement “I know that inflation can reduce the value of money” obtained the highest mean score of (e.g., 4.77), which is interpreted as a Very High Level. This indicates that women-owned SME owners in Calapan City demonstrate a superior grasp of foundational financial concepts essential for navigating the digital ecosystem. A very high level of understanding of interest rates and inflation serves as a critical baseline for making efficient financial decisions. This finding is consistent with the study of Li et al. [33], who found that individuals with strong foundational knowledge are

better equipped to translate literacy into effective actions within digital platforms. The results reflect a high level of readiness among respondents to engage in more complex digital financial tasks.

In contrast, the statement “I invest in digital financial programs” recorded the lowest mean score (e.g., 3.89), categorized as a High Level. While the respondents generally acknowledge the utility of digital tools, their position as the lowest rank indicates that actual engagement in digital investments remains limited compared to their conceptual knowledge. This suggests a cautious approach toward digital financial products, which may be influenced by perceived risks, security concerns, or institutional conditions, as noted by Urooj et al. [45]. Furthermore, the findings align with the observations of Wang [44], who suggested that the presence of digital services alone does not guarantee full utilization. This implies that while the entrepreneurs have a high level of capability, the specific application of skills in advanced areas like digital investment remains an area for further development.

Overall, the table reflects an overall mean of 4.40, which is interpreted as a High Level of digital financial capability among women-owned SMEs in Calapan City. This indicates that respondents demonstrate strong foundational knowledge and an active readiness to apply digital skills in managing their business finances. The high overall mean suggests that women entrepreneurs are generally capable of integrating digital financial competencies to support business performance and sustainability. However, the results highlight that moving from a high level to a very high level of capability will require bridging the gap between basic financial knowledge and the actual utilization of diverse digital investment opportunities.

**Table 5** Level of performance of women-owned SMEs

Statement	Mean	Rank	Description	Interpretation
1. Our sales growth rate	3.99	5	Good	High Level
2. The quality of our products	4.57	1	Excellent	Very High Level
3. Our product development	4.25	4	Excellent	Very High Level
4. Our ability to attract and retain loyal customers	4.47	2	Excellent	Very High Level
5. The overall profitability of our business operations	4.27	3	Excellent	Very High Level
Overall Mean	4.31		Excellent	Very High Level

Legends: Excellent=4.21 - 5.00 Good= 3.41- 4.20 Neutral=2.61-3.40 Bad=1.81- 2.60 Very Bad=1.00-1.80

Table 5 shows the average perception of the respondents regarding SME performance, covering growth, product quality, and market position. The results show that the statement “The quality of our products” obtained the highest mean score of 4.57, which is interpreted as a Very High Level of performance. This indicates that women-owned SME owners in Calapan City demonstrate superior capability in maintaining product standards. This finding suggests that respondents exhibit strong confidence and consistency in delivering high-value output, which serves as a foundational requirement for business sustainability. This result is consistent with the findings of Nadir et al. [19], who emphasized that maintaining operational quality is a significant contributor to the long-term stability and competitive reputation of small enterprises.

In contrast, the statement “Our sales growth rate” recorded the lowest mean score of 3.99, categorized as a High Level. Although the respondents generally perceive their sales performance as positive, its position as the lowest rank suggests a relative limitation in translating high product quality into rapid financial expansion. This indicates an area for potential growth, as consistent sales expansion is vital for ensuring the scalability and long-term financial health of the enterprise. This finding aligns with the observations of Nadir et al. [19], who noted that many small businesses, despite excelling in product standards, often face hurdles in achieving high growth rates due to market limitations or competitive pressures. This highlights the need for strategies that bridge the gap between product excellence and market reach.

Overall, the table reflects an overall mean of 4.31, which is interpreted as a High Level of performance among women-owned SMEs in Calapan City. This indicates that the respondents are successfully managing core business operations, particularly in terms of customer retention, product development, and operational effectiveness. While sales growth shows room for improvement, the overall high level of performance suggests that these enterprises are maintaining a

strong and competitive position in the local market. This reinforces the idea that women entrepreneurs in the city possess the operational resilience necessary to sustain their business ventures.

**Table 6** Moderation Analysis of Financial Literacy and Financial Capability on SME Performance (PROCESS Model 1)

Variable	Coefficient (b)	Standard Error (se)	t-value	p-value	LLCI	ULCI
Constant	4.2926	0.0503	85.3041	0.0000	4.1923	4.3929
Financial Literacy (X)	0.1936	0.1070	1.8092	0.5713	-0.0198	0.4070
Financial Capability (W)	0.1158	0.1210	.9569	0.1805	-0.1255	0.3570
FinaLite × FinaCapa	0.3368	0.2243	1.5015	0.1658	-0.1105	0.7842

### Model Summary

R	R <sup>2</sup>	MSE	F	df1	df2	p
0.2535	0.0643	0.1806	1.6253	3.0000	71.0000	0.1912

### Change in R<sup>2</sup> due to Interaction:

$\Delta R^2$	F	df1	df2	p
0.0297	2.2544	1.0000	71.0000	0.1377

In table 6 the moderation analysis using PROCESS Model 1 was examined whether financial capability (FinaCapa) moderates the relationship between financial literacy (FinaLite) and SME performance among women-owned SMEs. The results showed that the interaction effect between financial literacy (FinaLite) and financial capability (FinaCapa) was not statistically significant ( $p < .05$ ). This indicates that financial capability (FinaCapa) did not have any significant effect (strengthen nor weaken) the relationship between financial literacy and SME performance within the sample. The overall model was not statistically significant ( $R = .2533$ ,  $R^2 = .0642$ ,  $F(3, 71) = 1.63$ ,  $p = .1912$ ), indicating that the combined effects of financial literacy, financial capability, and their interaction explained only 6.4% of the variance in SME performance.

This suggests that other variables may influence SME performance to a greater extent than those included in the model. Examination of the individual predictors revealed that financial literacy (FinaLite) had a positive but statistically nonsignificant effect on SME performance ( $b = .1926$ ,  $p = .0746$ ). Although this result suggests a tendency for higher financial literacy to be associated with improved performance, the relationship did not reach an acceptable level of statistical significance. This indicates that possessing financial knowledge alone does not necessarily translate into better business performance.

Similarly, financial capability (FinaCapa) exhibited a positive yet statistically nonsignificant relationship with SME performance ( $b = .1168$ ,  $p = .3919$ ). While financial capability reflects prudent financial practices and sound financial decision-making, the findings suggest that these behaviors do not significantly contribute to improved performance among small-scale enterprises. Most importantly, the interaction term between financial literacy and financial capability (FinaLite × FinaCapa) was not statistically significant ( $b = .3568$ ,  $p = .1377$ ). The change in explained variance attributable to the interaction was minimal ( $\Delta R^2 = .0297$ ), indicating that financial capability does not significantly moderate the relationship between financial literacy and SME performance.

**Table 7** Moderating Effect of Digital Financial Capability on the Relationship Between Financial Literacy and SME Performance (PROCESS Model 1)

Variable	Coefficient (b)	Standard Error (se)	t-value	p-value	LLCI	ULCI
Constant	4.3009	0.0484	88.9079	0.0000	4.2045	4.3974
Financial Literacy (X)	0.1519	0.0964	1.5747	0.1198	-0.0404	0.3441
Digital Fin. Capability (W)	0.1438	0.0895	1.6074	0.1124	-0.0346	0.3221
Finalite × DFinaCap	0.2909	0.1640	1.7737	0.0804	-0.0361	0.6180

**Model Summary:**

R	R <sup>2</sup>	MSE	F	df1	df2	p
0.3152	0.0993	0.1738	2.6101	3.0000	71.0000	0.0581

**Change in R<sup>2</sup> due to interaction**

$\Delta R^2$	F	df1	df2	p
0.0399	3.1461	1.000	71.0000	0.0804

Table 7 presents the results of the moderation analysis conducted using PROCESS Model 1 in determining whether digital financial capability (DFinaCap) moderates the relationship between financial literacy (Finalite) and SME performance (SMEper) among women-owned SMEs.

The general regression equation failed to attain statistical significance ( $R = .3152$ ,  $R^2 = .0993$ ,  $F(3, 71) = 2.61$ ,  $p = .0581$ ). Nonetheless, the combined effects of financial literacy, digital financial capability, and their interaction explained approximately 9.9% of the variance in SME performance. This indicates that the variables included in the regression model account for only a small proportion of the variation in SME performance.

In examining the individual predictors, financial literacy showed a positive but statistically nonsignificant effect on SME performance ( $b = .1519$ ,  $p = .1198$ ). This suggests that although higher levels of financial literacy tend to be associated with better SME performance, the relationship is not strong enough to be considered statistically significant.

Likewise, digital financial capability exhibited a positive yet statistically nonsignificant relationship with SME performance ( $b = .1438$ ,  $p = .1124$ ). This indicates that the ability to utilize digital financial tools and platforms does not significantly influence SME performance among the respondents.

Most importantly, the interaction term between financial literacy and digital financial capability (Finalite × DFinaCap) was not statistically significant ( $b = .2909$ ,  $p = .0804$ ). Although the interaction contributed an additional 3.99% to the explained variance ( $\Delta R^2 = .0399$ ), this increase did not reach the conventional threshold for statistical significance. This finding indicates that digital financial capability does not significantly moderate the relationship between financial literacy and SME performance.

**Table 8** Moderation Analysis of Financial Capability on the Relationship Between Dynamic Environment and SME Performance (PROCESS Model 1)

Variable	Coefficient (b)	Standard Error (se)	t-value	p-value	LLCI	ULCI
Constant	4.2989	0.0501	85.8802	.0000	4.1990	4.3987
Dynamic Env. (X)	-0.0441	0.0778	-0.5667	.5713	-0.1987	0.1105
Digital Fin. Cap. (W)	0.1621	0.1149	1.5524	.1805	0.0769	0.4011
DynaEnvi × FinaCapa	0.2165	0.1546	1.4001	.1658	0.0918	0.5249

**Model Summary**

R	R <sup>2</sup>	MSE	F	df1	df2	p
0.2193	0.0481	0.1837	1.1958	3.0000	71.0000	0.3176

**Change in R<sup>2</sup> due to Interaction:**

$\Delta R^2$	F	df1	df2	p
0.0263	1.8604	1.0000	71.0000	0.1658

Table 8 presents the results of the moderation analysis conducted using PROCESS Model 1 to examine the effects of dynamic environment (DynaEnvi) and financial capability (FinaCapa) on SME performance (SMEper) among women-owned SMEs, as well as the moderating role of financial capability in the relationship between dynamic environment and SME performance.

The overall regression model was not statistically significant ( $R = .2193$ ,  $R^2 = .0481$ ,  $F(3, 71) = 1.20$ ,  $p = .3176$ ). The findings indicate that the combined effects of dynamic environment, financial capability, and their interaction explained only 4.8% of the variance in SME performance. This suggests that the predictors included in the model account for a very small proportion of variation in SME performance.

With regard to the individual predictors, the dynamic environment showed a negative but statistically nonsignificant effect on SME performance ( $b = -0.0441$ ,  $p = .5713$ ). This indicates that changes in market conditions, technology, and competitive pressures do not significantly influence the performance of SMEs among the respondents. Therefore, Hypothesis 1, which proposed a significant positive association between dynamic environment and SME performance, is not supported.

Similarly, financial capability exhibited a positive but statistically nonsignificant relationship with SME performance ( $b = .1621$ ,  $p = .1805$ ). Although financial capability reflects prudent financial behavior and sound financial decision-making, the results suggest that it does not significantly contribute to improved SME performance in this study. Hence, Hypothesis 2, which proposed a significant positive association between financial capability and SME performance, is not supported.

More importantly, the interaction term between dynamic environment and financial capability (DynaEnvi × FinaCapa) was not statistically significant ( $b = .2165$ ,  $p = .1658$ ). The interaction explained an additional 2.63% of the variance in SME performance ( $\Delta R^2 = .0263$ ), which did not reach statistical significance. This indicates that financial capability does not significantly moderate the relationship between dynamic environment and SME performance.

**Table 9** Moderation Analysis of Digital Financial Capability on the Relationship Between Dynamic Environment and SME Performance (PROCESS Model 1)

Variable	Coefficient (b)	Standard Error (se)	t-value	p-value	LLCI	ULCI
Constant	4.2954	0.0484	88.8038	0.0000	4.1990	4.3919
Dynamic Env. (X)	-0.0834	0.0727	-1.1475	0.2550	-0.2284	0.0616
Digital Fin. Cap. (W)	0.2345	0.0957	2.413	0.0167	0.0437	0.4252
Dynamic Env. × Digital Fin. Cap.	0.2838	0.1316	2.1572	0.0344	0.0215	0.5462

### Model Summary

R	R <sup>2</sup>	MSE	F	df1	df2	p
0.3271	0.1070	0.1724	2.8355	3.0000	71.0000	0.0442

### Change in R<sup>2</sup> due to Interaction

$\Delta R^2$	F	df1	df2	p
0.0585	4.6537	1.0000	71.0000	0.0344

Table 9 presents the results of the moderation analysis conducted using PROCESS Model 1 to examine whether digital financial capability moderates the relationship between dynamic environment and SME performance among women-owned SMEs.

The overall regression model was statistically significant, with an R value of .3271, an R-squared value of .1070, an F value of 2.86, and a p value of .0442. This indicates that the combined effects of dynamic environment, digital financial capability, and their interaction explained approximately 10.7 percent of the variation in SME performance. Although this represents a relatively small proportion of explained variance, the model demonstrates that these variables together have a meaningful influence on SME performance.

With respect to the individual predictors, the dynamic environment showed a negative but not statistically significant effect on SME performance, with a regression coefficient of minus .0834 and a p-value of .2550. This suggests that variations in market conditions, technological changes, and competitive pressures do not independently influence the performance of women-owned SMEs in the study.

In contrast, digital financial capability exhibited a positive and statistically significant relationship with SME performance, with a regression coefficient of .2347 and a p-value of .0167. This finding indicates that women-owned SMEs with stronger digital financial capability tend to achieve better performance outcomes. The result highlights the importance of effective use of digital financial tools and platforms in improving SME performance.

Most importantly, the interaction between dynamic environment and digital financial capability was found to be statistically significant, with a regression coefficient of .2858 and a p-value of .0344. The interaction effect contributed an additional 5.89 percent to the explained variance in SME performance, indicating that digital financial capability significantly moderates the relationship between dynamic environment and SME performance.

This implies that the impact of a dynamic environment on SME performance depends on the level of digital financial capability. Specifically, women-owned SMEs with higher levels of digital financial capability are better able to respond to and manage changes in their business environment, which in turn enhances their performance. There is a potential trend where Digital Capability helps Financial Literacy, but it didn't quite reach statistical certainty in this sample size (n=75).

**Table 10** Summary of Hypotheses Testing

Hypothesis	Hypothesis Statement	Result	Decision
H1	Financial Literacy has a significant effect on the performance of women-owned SMEs.	p > .05 Not Significant	Not Supported
H2	Dynamic Environment has a significant effect on the performance of women-owned SMEs.	p > .05 Not Significant	Not Supported
H3	Financial capability moderates the relationship between financial literacy and the performance of women-owned SMEs.	p > .05 Not Significant	Not Supported
H4	Digital financial capability moderates the relationship between the dynamic environment and the performance of women-owned SMEs.	p < .05 Significant	Supported
H5	Digital Financial Capability significantly moderates the relationship between Financial Literacy and SME performance.	p > .05 Not Significant	Not Supported
H6	Financial Capability significantly moderates the relationship between Dynamic Environment and SME performance.	p > .05 Not Significant	Not Supported

Table 10 presents the summary of the hypothesis testing conducted in this study. H4 is the only supported moderation hypothesis. It shows that in Calapan City, traditional factors like general literacy or just having money or capability are not the main drivers of success. Instead, it is the interaction between the external market (Dynamic Environment) and modern tools (Digital Financial Capability) that truly moves the indicator for women-owned SMEs. The results show that financial literacy and a dynamic business environment do not have statistically significant direct effects on the performance of women-owned SMEs in Calapan City, leading to the rejection of Hypotheses 1 and 2. Similarly, financial capability was found to have no significant moderating effect on the relationship between financial literacy and the performance of women-owned SMEs, resulting in the rejection of Hypothesis 3.

In contrast, the findings indicate that digital financial capability has a statistically significant moderating effect on the relationship between the dynamic business environment and the performance of women-owned SMEs. Thus, Hypothesis 4 is supported. This suggests that while environmental dynamism alone does not directly influence SME performance, the ability of women-owned SMEs to effectively utilize digital financial technologies enables them to better adapt to and manage changes in a dynamic business environment, thereby enhancing performance.

---

## 5. Conclusion

The objectives of the study were attained by examining the role of financial literacy, dynamic business environment, financial capability, and digital financial capability on the performance of women-owned SMEs in Calapan City. First, the study tested whether financial literacy contributes significantly to SME performance. Findings show that financial literacy does not play a significant role in influencing women-owned SME performance, suggesting that merely possessing financial knowledge does not positively affect performance.

The second objective was to examine the impact of the dynamic business environment on the performance of SMEs. The results indicated that the dynamic environment does not have any significant influence on the performance of SMEs. It implies that the dynamism in the environment does not necessarily translate into better performance until it is addressed effectively.

The third objective was to establish if financial capability moderated the relationship between financial literacy skills and SME performance. The findings showed that financial capability does not significantly moderate the relationship between financial literacy skills and SME performance. This indicates that financial skills such as budgeting and borrowing are not important in enhancing the relationship between financial literacy skills and business performance.

Moreover, the fourth objective was to establish whether digital financial capability serves as a moderator for the relationship between the dynamic business environment and performance of SMEs. The results proved that digital financial capability is a significant moderating variable in establishing the fact that women entrepreneurs with digital financial capability have the ability to adapt well to environmental changes and maintain their performance in the business. Overall, it can be observed from the findings that while financial literacy, financial capability, and a dynamic business environment alone do not improve SME performance directly, digital financial capability enables women-owned SMEs to effectively respond to a dynamic business environment for sustainable performance. These results signal the need to enhance digital financial skills in order to ensure the resilience and sustainability of women-owned SMEs in Calapan City.

### **5.1. Recommendation**

Based on the findings of this study, several recommendations are proposed to enhance the sustainability and resilience of women-owned SMEs in Calapan City. First, there must be a strategic shift in institutional policy led by local government units (LGUs) and the Department of Trade and Industry (DTI). Since the data revealed that traditional financial literacy seminars—focusing on basic accounting and manual budgeting—are insufficient to improve business performance, these agencies should transition toward Digital Financial Empowerment Programs. These initiatives should prioritize teaching women entrepreneurs how to leverage fintech tools, such as digital payment systems, online credit platforms, and cloud-based bookkeeping, as these have been proven to be critical "resilience tools" in navigating a volatile market.

Furthermore, because digital financial capability was identified as a significant moderating variable in the relationship between a dynamic environment and SME performance, capacity-building activities must go beyond theoretical knowledge. The proposed "Womentum Program for Women of Calapan" should serve as the primary vehicle for this intervention. This program must be specifically designed to bridge the gap between "knowing" and "doing" by focusing on the application of financial skills through technology. It should target the dimensions identified as the least performing areas in this study, specifically spending management, smart purchasing, and real-time financial decision-making. By providing structured training modules and hands-on assistance with actual financial applications, the Womentum Program will enable women-owned SMEs to better adapt to environmental change pressures and achieve sustainable growth.

Finally, the study provides a foundation for future academic inquiry. Given that traditional financial literacy and capability showed non-significant influences, future research should investigate other potential moderating variables, such as technological readiness, innovation capability, and entrepreneurial orientation, to develop a more comprehensive understanding of performance drivers. Methodologically, it is recommended that future studies adopt longitudinal or mixed-method approaches. A longitudinal design would allow researchers to trace the long-term impact of digital financial capability on business performance over time, while a mixed-method approach could capture the nuanced, lived experiences of women entrepreneurs in Calapan City. These expanded research efforts would ensure that support systems for SMEs remain evidence-based and responsive to the evolving digital economy.

Proposed Output: The WOMENTUM Program: Digital and Financial Empowerment Program for Women-Owned SMEs in Calapan City

The WOMENTUM Program empowers women-owned SMEs in Calapan City by promoting the adoption of digital payment platforms, real-time financial tracking, and cybersecurity practices to strengthen financial management and operational resilience. By leveraging these digital tools, entrepreneurs are able to streamline transactions and adapt to dynamic market conditions, ultimately fostering long-term business sustainability and contributing to local economic growth.

---

### **Compliance with ethical standards**

#### *Acknowledgments*

The authors express gratitude to DTI, the Business and Licensing office, who assisted in the data collection process, as well as to the respondents who voluntarily participated in the study. Their contributions were essential for ensuring the accuracy and reliability of the findings. This research would not have been possible without their support. Additionally, the authors would like to acknowledge the guidance and expertise of their colleagues, the adviser, and the panel of experts, to Sir Russell Villarma, Mam Fe Lopez, and Dean Shirley Mendoza, whose insights and suggestions

greatly enriched our research. Their collaborative efforts fostered a productive environment that encouraged critical thinking and innovation throughout the project. The authors are committed to applying these insights to future projects, aiming to further enhance the quality and impact of their work.

#### *Disclosure of Conflict of Interest*

The authors declare no conflict of interest.

All respondents' identities were kept strictly confidential, and their right to privacy was fully respected. Data collected were used solely for academic purposes and reported only in aggregated form to protect the privacy of women owners of small and medium enterprises in Calapan City. Participation in the study was voluntary, and the purpose and procedures of the research were clearly explained prior to data collection. Informed consent was obtained from all participants, who were also informed of their right to withdraw from the study at any time without penalty.

#### *Statement of Ethical approval*

This study adhered to institutional ethical guidelines and principles of research integrity. Participation was voluntary, informed consent was secured, and no personal identifiers were collected. All responses were anonymized and securely stored for academic use only. Proper citation and acknowledgment of sources were observed to uphold academic integrity and avoid plagiarism (Resnik, 2020).

#### *Statement of informed consent*

Informed consent was obtained from all individual participants included in the study.

Explicit informed consent was given and obtained from all women entrepreneurs in Calapan City who participated in this study prior to data collection.

---

## **References**

- [1] World Bank. (2020). SMEs finance: Improving SMEs' access to finance and finding innovative solutions. World Bank.
- [2] Dura, J. (2022). Determinants of financial literacy and digital literacy on SME financial performance in driving post-pandemic economic recovery. *Journal of Contemporary Eastern Asia*, 21(2), 47–62. <https://doi.org/10.17477/jcea.2022.21.2.047>
- [3] Asandimitra, N. H., Kautsar, A., Wijayati, D. T., & Kusumawati, N. D. (2024). Women in business: The impact of digital and financial literacy on female-owned small and medium-sized enterprises. *Investment Management and Financial Innovations*, 21(3), 335–347. [http://dx.doi.org/10.21511/imfi.21\(3\).2024.27](http://dx.doi.org/10.21511/imfi.21(3).2024.27)
- [4] Adam, A., Abdullah, W. R. W., Maruhun, E. N. S., Anwar, I. S. K., & Salin, A. S. A. P. (2022). The Resource-Based View Theory and women microbusiness entrepreneurs: A contribution to business sustainability. *International Journal of Academic Research in Business and Social Sciences*, 12(10), 2915–2932. <http://dx.doi.org/10.6007/IJARBS/v12-i10/15103>
- [5] Department of Trade and Industry [DTI]. (2022). 2022 MSME statistics. Philippines. <https://www.dti.gov.ph>
- [6] Rosete, M. (2022). Financial literacy and entrepreneurial decision-making in the Philippines. *Philippine Management Review*, 29(1), 45–62.
- [7] Fernando, N. D., Jayasekara, E., & Ranjani, C. (2019). A systematic literature review on the financial capability of small and medium entrepreneurs. Paper presented at the International Conference on Business Research (ICBR 2019), University of Moratuwa, Sri Lanka.
- [8] Agdan, M. K., Del Rosario, R. M., Faina, J. N., Lumpas, J. M., & Villarma, R. (2025, January). Digital financial literacy and the financial health of the owners of micro enterprises in Calapan City. *American International Journal of Business Management*. <https://www.aijbm.com/wp-content/uploads/2025/01/H816177.pdf>

- [9] Mukhtar, M. A., Nasreen, F., & Khalid, W. (2023). Dynamic capabilities and firm performance: Moderating effect of environmental dynamism. *Bulletin of Business and Economics*, 12(4), 597–601. <https://doi.org/10.61506/01.00180>
- [10] Nor, N., Saaidun, N. S. N., & Mohamad, N. (2024). Digital financial capability towards improving entrepreneurs' business performance. *Journal of Accounting, Business and Management (JABM)*, 32(1), 207–217. <https://doi.org/10.31966/jabminternational.v32i1.1465>
- [11] Atienza, J. A. P., Culis, H. J. D., Cayanan, M. D. C., Diego, R. A. H., Lacida, A. D. G., & Villena, R. V. (2024). Digital tools adoption and business growth of micro and small enterprises (MSEs) in Calapan City, Oriental Mindoro. *World Journal of Advanced Research and Reviews*. <https://wjarr.com/content/digital-tools-adoption2-and-business-growth-micro-and-small-enterprises-mses-calapan-city>
- [12] Cruzado, S. M. A., Dimaano, I. D. M., Manahan, R. L. L., Medes, J. C., & Villena, R. V. (2023). Financial constraints: Their impact on access to financing of micro, small, and medium businesses in Calapan City. *World Journal of Advanced Research and Reviews*. <https://wjarr.com/content/financial-constraints-its-impact-access-financing-micro-small-and-medium-businesses-calapan>
- [13] Silva, A. M. B., Villena, G. M., Rabino, A. R., & Melo, M. C. (2024). Digital financial literacy and the utilization of digital financial tools of college students in Calapan City. *World Journal of Advanced Research and Reviews*. <https://wjarr.com/content/digital-financial-literacy-and-utilization-digital-financial-tools-college-students-calapan>
- [14] Asandimitra, N. H., Kautsar, A., Wijayati, D. T., & Kusumawati, N. D. (2024). Women in business: The impact of digital and financial literacy on female-owned SMEs. *Investment Management and Financial Innovations*, 21(3), 335–347. [http://dx.doi.org/10.21511/imfi.21\(3\).2024.27](http://dx.doi.org/10.21511/imfi.21(3).2024.27)
- [15] Fernando, J. (2025, June 29). Financial literacy: What it is, and why it is so important to teach teens. Investopedia. <https://www.investopedia.com/terms/f/financial-literacy.asp>
- [16] Aini, A., & Fikri, M. (2025, September). Financial literacy and digital financial literacy: The mediating role of financial planning and control in micro furniture enterprises. *Golden Ratio of Auditing Research*, 6, 268–283. <https://doi.org/10.52970/grar.v6i1.1657>
- [17] Raghunath, S. (2025). Financial literacy and its influence on investment behaviour. *International Journal of Social Impact*, 10(2), 2455–670. <https://doi.org/10.25215/2455/1002041>
- [18] Zafari, S., & Saidalavi, K. (2025, August). Role of financial literacy in enhancing financial accessibility of women entrepreneurs. *International Journal of Commerce and Management Research*. <https://doi.org/10.22610/jcmr.v6i2.674>
- [19] Nadir, M., Alam, S., Ali, M., & Rahim, F. (2025). Financial literacy and SME financial distress studies: A systematic literature review. *Multidisciplinary Reviews*. <https://doi.org/10.31893/multirev.2026093>
- [20] Yakob, S., Yakob, R. B. A. M. H.-S., & Rusli, R. Z. A. (2021). Financial literacy and financial performance of small and medium-sized enterprises. *The South East Asian Journal of Management*, 15(1), Article 5. <https://doi.org/10.21002/seam.v15i1.13117>
- [21] Abdallah, W., Harraf, A., Ghura, H., & Abrar, M. (2024). Financial literacy and small and medium enterprises performance: The moderating role of financial access. *Journal of Financial Reporting and Accounting*. Advance online publication. <https://doi.org/10.1108/JFRA-06-2024-0337>
- [22] Bancoro, J. C. (2023). Financial literacy of MSME business owners in the Municipality of San Jose, Negros Oriental, Philippines: A basis for a state university's extension program. *International Journal of Accounting and Business Management*, 2(3). <https://doi.org/10.55927/ijabm.v2i3.4369>
- [23] Bakashaba, R., Musiita, B., & Nabachwa, S. (2024). Financial literacy, access to digital finance and performance of Ugandan SMEs in Mbarara City. *Journal of Economics and Behavioral Studies*, 16(1J), 41–51. [https://doi.org/10.22610/jebms.v16i1\(J\).3696](https://doi.org/10.22610/jebms.v16i1(J).3696)

- [24] Engström, P., & McKelvie, A. (2017). Financial literacy, role models, and micro-enterprise performance in the informal economy. *International Small Business Journal*, 35(7), 855–875. <https://doi.org/10.1177/0266242617717159>
- [25] Haryono, Nadia & Kautsar, Achmad & Wijayati, Dewie & Kusumawati, Nunik & Nihaya, Ina. (2024). "Women in business: The impact of digital and financial literacy on female- owned small and medium-sized enterprises". *Investment Management and Financial Innovations*. 21. 2024. 10.21511/imfi.21(3).2024.27.
- [26] Purwanti, I., Lailyningsih, D. R. N., & Suyanto, U. Y. (2022). Digital marketing capability and MSMEs performance: Understanding the moderating role of environmental dynamism. *Jurnal Manajemen Teori dan Terapan*, 15(3), 435–447. <https://doi.org/10.20473/jmtt.v15i3.39238>
- [27] Mukhtar, M. A., Nasreen, F., & Khalid, W. (2023). Dynamic capabilities and firm performance: Moderating effect of environmental dynamism. *Bulletin of Business and Economics*, 12(4), 597–601. <https://doi.org/10.61506/01.00180>
- [28] Andrade, J., Franco, M., & Mendes, L. (2021). Technological capacity and organisational ambidexterity: The moderating role of environmental dynamism on Portuguese technological SMEs. *Review of Managerial Science*, 15(7), 2111–2136. <https://doi.org/10.1007/s11846-020-00416-x>
- [29] Hadi, P. (2023). The impact of exploitative and organizational learnings on SMEs' performance: The role of environmental dynamism. *International Journal of Research in Business and Social Science*, 12(3), 31–40. <https://doi.org/10.20525/ijrbs.v12i3.2522>
- [30] Okeyo, W. O. (2014). The influence of business environmental dynamism, complexity and munificence on performance of small and medium enterprises in Kenya. *International Journal of Business and Social Research*, 4(8), 59–73.
- [31] Augustie, C., & Md Saad, N. (2019, February). Examining the moderating effect of environmental dynamism on the relationship between firm innovativeness and international performance of Indonesian SMEs. In *Proceedings of the 5th Annual International Conference on Management Research (AICMaR 2018)* (pp. 24–27). Atlantis Press. <https://doi.org/10.2991/aicmar-18.2019.6>
- [32] Liang, Y., Koo, J.-M., & Lee, M.-J. (2024). The interplay of environmental dynamism, digitalization capability, green entrepreneurial orientation, and sustainable performance. *Sustainability*, 16(17), Article 7674. <https://doi.org/10.3390/su16177674>
- [33] Li, S., & Zhang, K. (2025). The moderating effect of environmental dynamism on entrepreneurship and open innovation. *South African Journal of Economic and Management Sciences*, 28(1), Article a5767. <https://doi.org/10.4102/sajems.v28i1.5767>
- [34] Sun, S., Chen, Y.-C., Ansong, D., Huang, J., & Sherraden, M. S. (2022). Household financial capability and economic hardship: An empirical examination of the financial capability framework. *Journal of Family and Economic Issues*, 43(4), 716–729. <https://doi.org/10.1007/s10834-022-09816-5>
- [35] Aziz, S., Khan, I. U., Alomair, A., & Al Naim, A. (2025). The nexus of financial socialization, financial literacy, financial capability and financial well-being: Women's perspective with structural equation modeling approach. *Humanities and Social Sciences Communications*, 12(1), Article 11636. <https://doi.org/10.1057/s41599-025-05894-6>
- [36] Houry, F., & Zottel, S. (2016). Enhancing financial capability and inclusion in Senegal: A demand-side survey. *World Bank Group*. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/371101467006421447/enhancing-financial-capability-and-inclusion-in-senegal-a-demand-side-survey>
- [37] Sherraden, M. S., Sun, S., Chen, Y.-C., & Ansong, D. (2022). Household financial capability and economic hardship: An empirical examination. *Journal of Family and Economic Issues*, 43(4), 716–729. <https://doi.org/10.1007/s10834-022-09816-5>

- [38] Khan, K. A., Çera, G., & Pinto Alves, R. (2022). Financial capability as a function of financial literacy, financial advice, and financial satisfaction. *Journal of Behavioral and Experimental Finance*, 33, Article 100609. <https://doi.org/10.15240/tul/001/2022-1-009>
- [39] Scott, J. K., Vu, N. N., Cheng, Y., & Gibson, P. (2018). Financial literacy, behavior, and distress. *Financial Services Review*, 27(4), 391–411.
- [40] Hamdani, M. R., & Dura, J. (2024). Strengthening the local economy: Measuring the digital literacy of UMKM towards the efficiency of electronic tax reporting. *Jurnal Ilmiah Bisnis Dan Ekonomi Asia*, 18(3), 348–357. <https://doi.org/10.32815/jibeka.v18i3.2178>
- [41] Wiryakusuma, I. G. B. Y., & Handijaya, E. M. C. (2023). Financial capability and financial behaviour among people in Surabaya. *Excellent*, 10(2), 211–219.
- [42] Li, X., Li, X., & Zhang, J. (2025). Digital financial capability and efficiency of household financial asset portfolios: Evidence from China. *Journal of Family and Economic Issues*, 1–18. <https://doi.org/10.1007/s10834-025-10039-7>
- [43] Luo, Y., Peng, Y., & Zeng, L. (2021). Digital financial capability and entrepreneurial performance. *International Review of Economics & Finance*, 76, 55–74. <https://doi.org/10.1016/j.iref.2021.05.010>
- [44] Wang, Y. (2024). Digital financial capability and entrepreneurship in China: A digital economy perspective. *Sustainability*, 16(16), Article 6885. <https://doi.org/10.3390/su16166885>
- [45] Urooj, S., Luo, G., & Ullah, A. (2025). Exploring the impact of digital financial capability and financial compliance on sustainable entrepreneurship across nations. *Sustainable Futures*, 10, Article 101403. <https://doi.org/10.1016/j.sftr.2025.101403>
- [46] Rukmani, S., Devi, S., Natarajan, S., Sabapathi, S., & Paul, D. (2024). Exploring the business growth: The digital marketing revolution. *Journal of Applied Business Research*, 32, 86–98.
- [47] Luo, Y., Peng, Y., & Zeng, L. (2021). Digital financial capability and entrepreneurial performance. *International Review of Economics & Finance*, 76, 55–74. <https://doi.org/10.1016/j.iref.2021.05.010>
- [48] Muhtadi, D. A., Riana, I. G., & Nurcaya, I. N. (2024). Internal factors of entrepreneurial and business performance of small and medium enterprises (SMEs) in East Java, Indonesia. *International Journal of Professional Business Review*, 9(4), 1–15. <https://doi.org/10.26668/businessreview/2024.v9i4.4371>
- [49] Halimah, S., & Suryani, E. (2025). The impact of digital finance, financial constraints, and risk perception of digital financial services on SME performance: An empirical study of SMEs in the creative economy sector on Lombok Island. *Journal of Finance and Business Digital*, 4, 189–200. <https://doi.org/10.55927/jfbd.v4i1.59>
- [50] Bakashaba, R., Musiita, B., & Nabachwa, S. (2024). Financial literacy, access to digital finance and performance of Ugandan SMEs in Mbarara City. *Journal of Economics and Behavioral Studies*, 16(1J), 41–51. [https://doi.org/10.22610/jeb.v16i1\(J\).3696](https://doi.org/10.22610/jeb.v16i1(J).3696)
- [51] Mangifera, L., Wajdi, F., Amalia, F., & Uswatun Khasanah, A. (2022). The role of digital innovation in SMEs: A financial performance perspective. *Jurnal Manajemen Universitas Bung Hatta*, 17, 157–170. <https://doi.org/10.37301/jmubh.v17i2.20184>
- [52] Kusumawardhani, R., Ningrum, N., & Rinofah, R. (2023). Investigating digital financial literacy and its impact on SMEs' performance: Evidence from Indonesia. *International Journal of Professional Business Review*, 8, Article e04097. <https://doi.org/10.26668/businessreview/2023.v8i12.4097>
- [53] Wiryakusuma, I. G. B. Y., & Handijaya, E. M. C. (2023). Financial capability and financial behaviour among people in Surabaya. *Excellent*, 10(2), 211–219.
- [54] Zottel, Siegfried; Khoury, Fares; Varghese, Minita Mary. Investigating the financial capabilities of SMEs : lessons from a 24-country survey - technical note (English). Washington, D.C. : World Bank Group. <http://documents.worldbank.org/curated/en/884291527663849364>