International Journal of Business and Quality Research

https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

How Financial Literacy Shapes Financial Decision-Making: A Multiple Case Study of MSMEs

Nurjannah[1*], Muhammad Azis [2], Marhawati[3]

[1,2,3]Universitas Negeri Makassar, Indonesia

*Corresponding author: nurjannahfe@unm.ac.id

Abstract

In an increasingly digital and uncertain global economy, financial literacy has become a key capability for strengthening the sustainability of micro, small, and medium-sized enterprises (MSMEs). However, limited research has explained how financial literacy shapes financial decision-making from the perspectives of MSME owners. This study explores this relationship using a qualitative multiple case study approach. Data were collected through semi-structured interviews with 15 MSME owners in Pangkep Regency, Indonesia, and analyzed using reflexive thematic analysis and cross-case comparison. The findings show that financial literacy functions as a multidimensional capability encompassing financial knowledge, financial behaviour, and digital financial capability. These dimensions interact to support more informed and planned decisions related to financial management, investment, and business expansion. The study proposes an emergent model illustrating how financial literacy is transformed into strategic financial decision-making through the integration of cognitive understanding, behavioural implementation, and digital capability. This study contributes to the financial literacy literature by explaining the mechanisms underlying financial decision-making in MSMEs and provides practical insights for designing integrated financial literacy programs to enhance business sustainability.

Keywords: Financial Literacy; Financial Decision Making; Digital Financial Capability; MSMEs; Multiple Case Study

INTRODUCTION

Micro, Small, and Medium-Sized Enterprises (MSMEs) constitute the backbone of many economies by contributing significantly to employment generation, economic growth, and social welfare. However, the sustainability and competitiveness of MSMEs depend not only on their ability to produce goods and services but also on the capability of business

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

owners to make sound financial decisions. Decisions regarding cash flow management, financing, investment, cost control, and risk management are critical determinants of business success in an increasingly dynamic business environment. In this context, financial literacy has emerged as a fundamental competency that enables entrepreneurs to understand financial information, evaluate available alternatives, and select appropriate financial strategies that support business sustainability (OECD, 2020; Kaiser et al., 2022).

The rapid expansion of digitalization, the increasing complexity of financial products, and changing market dynamics have further strengthened the importance of financial literacy for MSMEs. The OECD (2023) emphasizes that the ability to understand both conventional and digital financial products is a prerequisite for improving access to finance, managing business risks, and enhancing enterprise sustainability. Likewise, Aristei et al. (2024) demonstrate that financial literacy, when complemented by digital financial capability, promotes more responsible and sustainable investment decisions among micro-firms. These developments indicate that financial literacy should no longer be viewed merely as knowledge of basic financial concepts but rather as a strategic capability that shapes the quality of business decision-making.

A growing body of empirical research has confirmed the positive contribution of financial literacy to various dimensions of MSME management. Yakob et al. (2021) found that financial literacy is positively associated with the financial performance of small and medium-sized enterprises, while Tuffour et al. (2022) reported that higher levels of financial literacy among managers significantly improve the performance of small-scale enterprises. Similarly, Basha et al. (2023) revealed that financial literacy influences firms' capital structure by encouraging more rational leverage decisions. Furthermore, Kulathunga et al. (2020) demonstrated that financial and technological literacy enhance MSME performance through the mediating role of enterprise risk management practices. Collectively, these findings suggest that financial literacy serves as a strategic resource that contributes substantially to effective business management.

Beyond its influence on firm performance, financial literacy also plays a crucial role in shaping managerial decision-making. Balasubramnian and Sargent (2020) found that inflated perceptions of financial literacy may lead to suboptimal financial decisions. Conversely, García-Pérez-de-Lema et al. (2021) and Duréndez et al. (2023) demonstrated that the financial literacy of business owners and chief executive officers fosters technological innovation through stronger management control systems and greater willingness to undertake calculated risks. These findings indicate that the relationship between financial literacy and business decision-making is neither simple nor linear; rather,

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

it is influenced by various organizational mechanisms that require deeper investigation within the real-life contexts of MSMEs.

Despite the growing interest in financial literacy research, previous studies have been dominated by quantitative approaches that primarily examine causal relationships using large-scale survey data (Anshika et al., 2021; Yakob et al., 2021; Tuffour et al., 2022). Meanwhile, systematic literature reviews conducted by Molina-García et al. (2023) and Graña-Alvarez et al. (2024) highlight substantial opportunities for further research exploring how financial literacy is translated into everyday financial decision-making within MSMEs. Existing studies have predominantly focused on measuring financial literacy levels or assessing their effects on business performance, while relatively limited attention has been given to understanding the underlying processes through which financial knowledge is transformed into actual financial decisions, particularly in the context of MSMEs operating in developing countries.

This research gap is particularly relevant in Indonesia, especially in Pangkep Regency, where the local economy is characterized by the dominance of MSMEs operating in trade, fisheries, agriculture, and home-based industries. The diversity of business characteristics, socio-cultural backgrounds, and enterprise scales may lead business owners to develop different forms of financial literacy and financial decision-making practices. Therefore, a multiple case study approach is considered appropriate because it enables an in-depth exploration of the experiences, contexts, and decision-making processes across different cases, thereby providing a richer and more comprehensive understanding than survey-based research alone (Yin, 2018; Creswell & Poth, 2024; Braun & Clarke, 2022).

Based on these considerations, this study contributes to the existing literature by shifting the focus from merely measuring financial literacy levels to understanding how financial literacy shapes financial decision-making among MSME owners. By employing a multiple case study approach, this research seeks to uncover the mechanisms, experiences, and contextual factors that influence financial decision-making in MSMEs while enriching the growing body of knowledge on financial literacy in small businesses. Accordingly, the objective of this study is to investigate how financial literacy shapes financial decision-making among MSMEs in Pangkep Regency, Indonesia, and to identify the contextual factors that influence this process.

THEORETICAL REVIEW

Financial Literacy

Financial literacy has evolved from a concept primarily associated with individual financial knowledge into a strategic capability that supports business sustainability and

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

organizational decision-making. The Organisation for Economic Co-operation and Development (OECD, 2020) defines financial literacy for Micro, Small, and Medium-Sized Enterprises (MSMEs) as a combination of financial knowledge, skills, attitudes, and behaviors that enables business owners to make informed financial decisions and effectively manage business resources. This perspective emphasizes that financial literacy is not merely the possession of financial knowledge but also the ability to apply such knowledge in real business situations.

Recent literature further expands this perspective by positioning financial literacy as a dynamic organizational capability. Graña-Alvarez et al. (2024), through a systematic literature review, argue that financial literacy encompasses cognitive competence, financial experience, and behavioral capability that collectively influence strategic business decisions. Similarly, Molina-García et al. (2023) identify financial literacy as an emerging research field that extends beyond personal finance toward entrepreneurial capability, innovation, and organizational sustainability.

Within the MSME context, financial literacy includes the ability to understand financial statements, manage cash flow, evaluate financing alternatives, assess investment opportunities, understand financial risks, and develop long-term financial planning (OECD, 2020). Anshika et al. (2021) further suggest that financial literacy among entrepreneurs is influenced by demographic characteristics, education, business experience, and access to financial information, indicating that financial literacy is socially constructed through continuous learning and business experience.

Moreover, financial literacy has increasingly been linked with digital financial capability. OECD (2023) emphasizes that digital transformation requires entrepreneurs to possess competencies in utilizing digital financial services, evaluating digital financial products, and managing financial information through technology. Aristei et al. (2024) demonstrate that digital financial capability strengthens the positive influence of financial literacy on sustainable investment decisions, suggesting that financial literacy has become increasingly multidimensional in the digital economy.

Financial Decision-Making in MSMEs

Financial decision-making refers to the process through which business owners evaluate financial information, consider available alternatives, and determine actions regarding financing, investment, budgeting, cash management, and risk management. For MSMEs, financial decision-making is often characterized by uncertainty, limited information, resource constraints, and the direct involvement of business owners in operational and strategic activities.

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

Previous studies consistently demonstrate that financial literacy contributes positively to the quality of financial decisions. Basha et al. (2023) report that financially literate entrepreneurs tend to adopt more rational financing strategies and maintain healthier capital structures. Likewise, Yakob et al. (2021) find that improved financial literacy enhances financial performance through better financial management practices.

However, financial decision-making is not determined solely by financial knowledge. Balasubramnian and Sargent (2020) reveal that entrepreneurs who overestimate their financial literacy may become overconfident, potentially leading to inefficient financial decisions. This finding suggests that decision quality depends not only on objective knowledge but also on entrepreneurs' perceptions, experiences, and behavioral characteristics.

Financial literacy also influences strategic managerial decisions. García-Pérez-de-Lema et al. (2021) demonstrate that financially literate CEOs are more capable of overcoming financial constraints and promoting technological innovation. Similarly, Duréndez et al. (2023) find that financial literacy indirectly enhances innovation through stronger management control systems and calculated risk-taking behavior. These findings indicate that financial literacy shapes financial decision-making through multiple organizational mechanisms rather than through direct effects alone.

Financial Literacy as a Strategic Capability

Contemporary literature increasingly recognizes financial literacy as a strategic organizational capability rather than merely an individual competency. From this perspective, financial literacy enables entrepreneurs to interpret financial information, anticipate financial risks, allocate scarce resources efficiently, and respond strategically to changing business environments.

Graña-Alvarez et al. (2024) argue that financially literate entrepreneurs are better equipped to integrate accounting information, financial planning, and management control systems into strategic decision-making processes. Likewise, Kulathunga et al. (2020) demonstrate that financial literacy improves enterprise performance by supporting enterprise risk management practices, suggesting that financial knowledge becomes valuable when translated into managerial actions.

This capability perspective aligns with the present study, which assumes that financial literacy is manifested through entrepreneurs' daily financial practices rather than existing solely as theoretical knowledge. Consequently, understanding how financial literacy shapes financial decision-making requires examining real experiences, business contexts, and organizational practices.

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

Research Gap

Although previous studies have established significant relationships between financial literacy and business performance, innovation, financial leverage, and enterprise sustainability (Kulathunga et al., 2020; Yakob et al., 2021; Basha et al., 2023; Duréndez et al., 2023), the existing literature remains dominated by quantitative research focusing on statistical relationships among variables.

Systematic reviews conducted by Molina-García et al. (2023) and Graña-Alvarez et al. (2024) emphasize the need for more qualitative investigations that explain how entrepreneurs actually use financial knowledge when making financial decisions. Existing evidence provides limited understanding of the cognitive processes, contextual influences, lived experiences, and organizational conditions through which financial literacy is translated into financial decision-making.

Accordingly, this study addresses this gap by employing a multiple case study approach to explore the mechanisms through which financial literacy shapes financial decision-making among MSME owners in Pangkep Regency, Indonesia. Rather than measuring the level of financial literacy, this study seeks to understand how entrepreneurs interpret financial information, construct financial meaning, and transform financial knowledge into practical business decisions across different organizational contexts.

Conceptual Framework

This research adopts a conceptual framework that positions financial literacy as a strategic capability that shapes financial decision-making in MSMEs. Financial literacy is understood as a combination of financial knowledge, skills, attitudes, and behaviors (OECD, 2020), implemented in daily business management activities. In practice, this process is influenced by the internal and external contexts of the business, so that the resulting financial decisions reflect the interaction between individual competencies and the business environment.

Based on a literature synthesis (OECD, 2020, 2023; Kulathunga et al., 2020; Yakob et al., 2021; Basha et al., 2023; Graña-Alvarez et al., 2024), this study develops a conceptual model explaining that financial literacy shapes the financial decision-making process through the ability of MSMEs to understand financial information, evaluate various alternatives, and determine decisions appropriate to their business conditions. All of these processes occur within the context of business characteristics, owner experience, the

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

business environment, and digitalization developments that are part of the reality of each case studied.

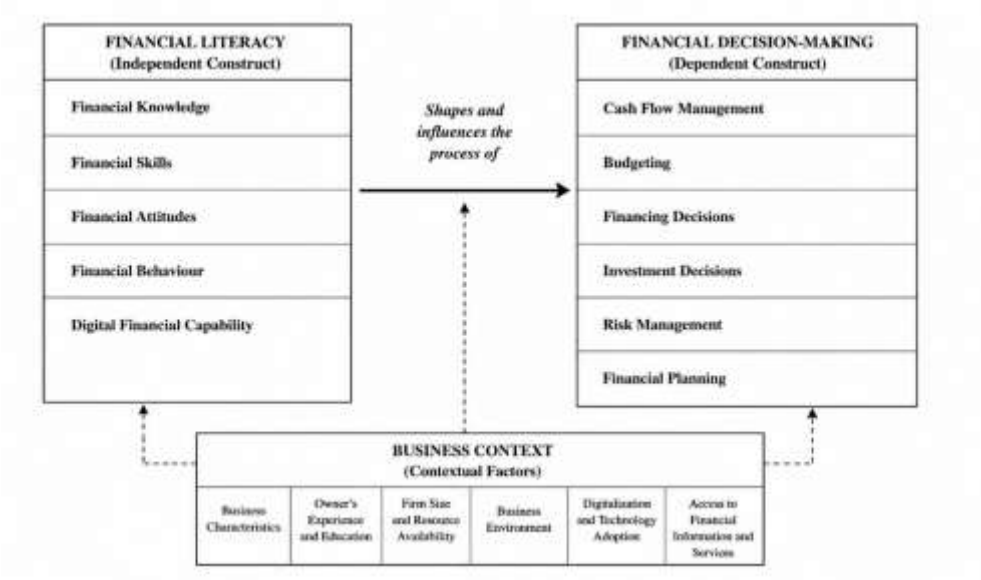


Figure 1. Proposed Conceptual Framework

This conceptual model emphasizes that financial literacy is a strategic capability comprising financial knowledge, financial skills, financial attitudes, financial behavior, and digital financial capability (OECD, 2020, 2023). These five dimensions shape how MSMEs understand financial information, evaluate available options, and make business decisions related to cash management, budgeting, financing, investment, risk management, and financial planning.

However, this process does not occur in isolation from business realities. Business characteristics, owner experience, business size, business environment, digitalization, and access to financial information form the context that influences how financial literacy translates into concrete decisions. Therefore, this study seeks not only to identify levels of financial literacy but also to explore the mechanisms, experiences, and contexts that explain how financial literacy shapes financial decision-making in various MSME cases in Pangkep Regency.

METHOD

Research Design

This study employed a qualitative research approach using a multiple case study design to explore how financial literacy shapes financial decision-making among Micro,

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

Small, and Medium-Sized Enterprises (MSMEs). A qualitative approach was considered appropriate because the study aimed to understand the meanings, experiences, and decision-making processes constructed by MSME owners within their real-life business contexts rather than to test causal relationships between variables (Creswell & Poth, 2024). The multiple case study design enabled the researcher to investigate similarities and differences across several cases, thereby generating a richer and more comprehensive understanding of the phenomenon than would be possible through a single case study (Yin, 2018).

The case study design was selected because financial decision-making is a context-dependent process that cannot be adequately understood without considering the interaction between entrepreneurs, their businesses, and the surrounding environment. By comparing multiple MSMEs operating under different business characteristics, this study sought to identify recurring patterns as well as contextual variations in the ways financial literacy influences financial decisions.

Research Setting and Case Selection

The study was conducted among MSMEs operating in Pangkep Regency, Indonesia. This setting was selected because MSMEs represent the dominant economic actors across various sectors, including trade, fisheries, agriculture, food processing, and home-based industries. These diverse business characteristics provide an appropriate context for examining how financial literacy is interpreted and applied in financial decision-making.

Cases were selected using purposive sampling based on information-rich criteria (Creswell & Poth, 2024). Participants were required to satisfy the following criteria:

1. The business had operated for at least three years.
2. The owner was directly responsible for financial decision-making.
3. The enterprise maintained regular financial management activities.
4. The owner was willing to participate in an in-depth interview.
5. The selected cases represented different business sectors and enterprise scales.

The number of cases was determined based on information richness and theoretical saturation rather than statistical representativeness. Data collection was concluded when no substantially new themes emerged from subsequent interviews.

Participants and Case Selection

The study employed purposive sampling to select information-rich cases capable of providing in-depth insights into how financial literacy shapes financial decision-making among MSMEs. Participants were selected based on four criteria: (1) owning and managing

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

an MSME for at least three years, (2) being directly responsible for financial decision-making within the business, (3) actively managing business finances, and (4) being willing to participate in an in-depth interview.

Fifteen MSME owners representing diverse business sectors and business scales participated in this study. The participants were drawn from several districts in Pangkep Regency to ensure variation in business characteristics and entrepreneurial experiences. Such variation supports cross-case comparison and enhances the transferability of the findings. Table 1 summarizes the characteristics of the participating MSMEs.

Table 1. Characteristics of Research Participants

Partici-pant	Gender	Age (Years)	Business Sector	Business Scale	Years in Business	Education Level	Role in Business
P1	Male	52	Fisheries	Small	20	Senior High School	Owner
P2	Female	41	Culinary	Micro	12	Diploma	Owner
P3	Male	35	Retail	Small	10	Bachelor's Degree	Owner
P4	Female	30	Food Pro-cessing	Micro	8	Bachelor's Degree	Owner
P5	Male	46	Agricul-ture	Small	15	Senior High School	Owner
P6	Female	38	Fashion	Micro	11	Diploma	Owner
P7	Male	49	Grocery Store	Small	22	Junior High School	Owner
P8	Female	28	Handicraft	Micro	6	Bachelor's Degree	Owner
P9	Male	43	Fisheries Pro-cessing	Small	18	Senior High School	Owner
P10	Female	33	Café	Small	9	Bachelor's Degree	Owner
P11	Male	39	Building Materials	Medium	14	Bachelor's Degree	Owner
P12	Female	36	Beauty Products	Micro	7	Diploma	Owner
P13	Male	45	Livestock	Small	17	Senior High School	Owner
P14	Female	31	Online Re-tail	Micro	5	Bachelor's Degree	Owner
P15	Male	40	Furniture	Medium	13	Senior High School	Owner

Source: Field Data (2026)

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

Data Collection

Primary data were collected through semi-structured, in-depth interviews with MSME owners. Semi-structured interviews allowed participants to explain their experiences while enabling the researcher to probe emerging issues relevant to financial literacy and financial decision-making.

The interview protocol was developed from the OECD (2020, 2023) financial literacy framework and previous empirical studies on MSMEs (Anshika et al., 2021; Graña-Alvarez et al., 2024). The interview explored several broad themes, including:

1. understanding of financial concepts;
2. financial record-keeping practices;
3. budgeting and cash-flow management;
4. financing decisions;
5. investment decisions;
6. financial risk management;
7. digital financial capability; and
8. experiences in making financial decisions.

To enhance data credibility, interviews were complemented by document review, including financial records, business documents, and other relevant materials whenever such documents were available and participants agreed to provide access.

Data Analysis

Data were analyzed using thematic analysis following Braun and Clarke (2022). This analytical approach was chosen because it provides a systematic procedure for identifying, organizing, and interpreting patterns across qualitative data while allowing themes to emerge inductively from participants' experiences.

The analysis consisted of six stages:

1. familiarization with the interview transcripts;
2. initial coding of meaningful data segments;
3. searching for potential themes;
4. reviewing and refining themes;
5. defining and naming themes; and
6. producing an interpretive narrative supported by empirical evidence.

Cross-case analysis was subsequently conducted to compare similarities and differences across participating MSMEs. This procedure enabled the identification of recurring patterns explaining how financial literacy shapes financial decision-making while preserving the unique context of each case (Yin, 2018).

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

Trustworthiness

To ensure research rigor, this study adopted the trustworthiness criteria proposed by Lincoln and Guba, consisting of credibility, transferability, dependability, and confirmability. Credibility was enhanced through prolonged engagement with participants, member checking, and triangulation using interview data and supporting documents. Transferability was supported by providing detailed descriptions of participants, business characteristics, and research settings to enable readers to determine the applicability of findings to other contexts.

Dependability was strengthened by maintaining a comprehensive audit trail documenting methodological decisions, interview procedures, coding processes, and analytical development throughout the study. Confirmability was achieved by preserving interview transcripts, coding records, analytical memos, and reflexive notes to ensure that findings were grounded in participants' perspectives rather than researcher assumptions.

Ethical Considerations

Prior to data collection, all participants were informed about the objectives of the study, the voluntary nature of participation, and their right to withdraw at any stage without consequence. Written informed consent was obtained from each participant before the interviews commenced. To protect participants' privacy, pseudonyms were used throughout the analysis and reporting, and all research data were treated confidentially and stored securely.

RESULTS

Profile of the Cases

This study involved multiple MSME owners representing diverse business sectors in Pangkep Regency, including culinary businesses, fisheries, retail, agriculture, home industries, and service enterprises. The participating businesses differed in terms of business scale, years of operation, educational background, and managerial experience. Such variation enabled the study to capture diverse experiences regarding how financial literacy shapes financial decision-making across different business contexts. Cross-case analysis revealed that despite these contextual differences, participants demonstrated similar patterns in utilizing financial literacy when making strategic financial decisions.

Case 1. Financial Knowledge as the Cognitive Foundation of Financial Decision-Making

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

The thematic analysis revealed that financial knowledge constitutes the primary foundation upon which MSME owners formulate financial decisions. Across all cases, participants consistently emphasized that understanding financial concepts enabled them to distinguish between business and personal finances, estimate future cash requirements, evaluate business performance, and anticipate potential financial risks.

Most participants explained that their financial knowledge was not acquired exclusively through formal education but rather developed through continuous entrepreneurial experience, interactions with financial institutions, business training, and self-directed learning. This accumulated knowledge gradually enhanced their confidence in interpreting financial information before making business decisions.

One participant explained:

"At first, I only knew whether the business made money or not. Now I understand how to calculate operational costs, profit margins, and cash flow before deciding to purchase additional inventory."

(Participant 3, Retail Business)

Similarly, another participant stated:

"I used to mix business money with household expenses. After attending financial management training, I realized that separating the accounts makes it much easier to evaluate whether the business is actually growing."

(Participant 7, Culinary Business)

Several participants further explained that financial knowledge had fundamentally changed the way they approached business decisions. Rather than relying solely on intuition, they increasingly evaluated financial reports, sales trends, and projected business conditions before committing financial resources.

As illustrated by one participant:

"Previously, every decision was based on instinct. Now I always calculate whether the investment will provide returns before spending money."

(Participant 11, Fisheries Business)

Cross-case comparison indicated that entrepreneurs possessing broader financial knowledge demonstrated greater analytical ability when evaluating financing alternatives, investment opportunities, and operational expenditures. Financial knowledge therefore functioned as the cognitive basis through which entrepreneurs interpreted financial information before making strategic decisions.

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

Case 2. Financial Behaviour Encourages Planned Financial Decision-Making

The second theme emerging from the analysis highlighted the importance of financial behaviour in transforming financial knowledge into practical managerial actions. Participants consistently reported that routine financial practices—including bookkeeping, budgeting, cash-flow monitoring, and periodic financial evaluation—enabled them to make more structured and disciplined financial decisions.

Participants emphasized that financial discipline gradually reduced impulsive spending and improved their ability to prioritize business expenditures. Businesses implementing regular financial recording practices appeared better prepared to respond to fluctuations in sales, unexpected expenses, and seasonal business cycles.

One participant explained:

"Every evening I record all transactions. By doing that, I immediately know where money is spent and whether expenses exceed the budget."

(Participant 5, Food Processing Business)

Another participant stated:

"We now prepare monthly budgets before purchasing raw materials. It prevents unnecessary spending and helps us maintain sufficient cash for production."

(Participant 9, Agricultural Business)

Several participants acknowledged that separating business finances from household finances represented one of the most significant behavioural changes influencing decision quality.

One entrepreneur remarked:

"After separating personal and business money, every investment decision became much clearer because I know exactly how much capital the business actually has."

(Participant 12, Service Enterprise)

Across the cases, financial behaviour emerged as the mechanism translating financial literacy into routine managerial practice. Participants who consistently implemented disciplined financial behaviours demonstrated more systematic planning, stronger financial control, and greater confidence in making business decisions.

Case 3. Digital Financial Capability Enhances Investment and Business Expansion Decisions

The third theme demonstrated that digital financial capability substantially strengthened entrepreneurs' capacity to make strategic financial decisions. Participants increasingly relied on digital financial technologies, including mobile banking applications,

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

digital payment platforms, accounting software, and online financial information, to support financial management.

Digital technologies enabled entrepreneurs to monitor business transactions more efficiently, access financial information in real time, and evaluate investment opportunities using more accurate financial data.

One participant explained:

"Using a bookkeeping application allows me to monitor income every day. Before expanding the business, I always review the monthly financial reports generated by the application."

(Participant 4, Retail Business)

Another participant stated:

"Most customer payments are now digital. Because every transaction is automatically recorded, I can estimate monthly revenue more accurately before deciding to increase production."

(Participant 10, Culinary Business)

Several entrepreneurs also emphasized that digital financial capability encouraged greater confidence when making investment and expansion decisions.

As one participant noted:

"I decided to open another outlet only after analyzing sales reports from the previous six months. Without those digital records, I would probably hesitate."

(Participant 14, Fisheries Enterprise)

Cross-case analysis suggested that digital financial capability not only improved access to financial information but also enhanced entrepreneurs' ability to evaluate risks and identify business opportunities. Consequently, digital capability strengthened the relationship between financial literacy and strategic financial decision-making.

Cross-Case Thematic Analysis

The cross-case analysis identified a consistent thematic pattern across all participating MSMEs. Although business characteristics differed considerably, financial literacy influenced financial decision-making through three interconnected mechanisms.

First, financial knowledge enabled entrepreneurs to understand financial information and evaluate available alternatives before making business decisions. Second, financial behaviour transformed knowledge into disciplined financial management practices, resulting in more planned and accountable financial decisions. Third, digital financial capability expanded entrepreneurs' access to financial information, strengthened analytical capacity, and facilitated investment and business expansion decisions.

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

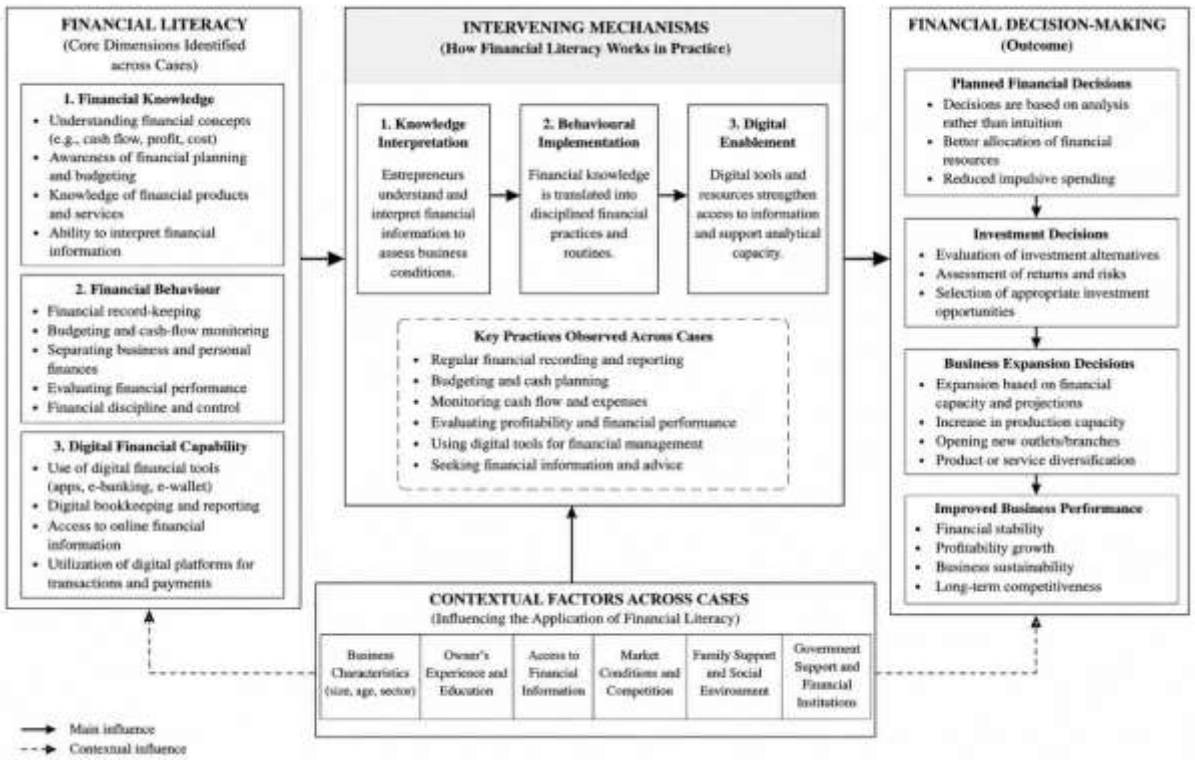
International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

The interaction among these three themes produced a common decision-making process observed across the participating cases. Entrepreneurs who demonstrated stronger financial knowledge were more likely to implement disciplined financial behaviours. Those behavioural practices, when supported by digital financial capability, enhanced their ability to evaluate financial conditions objectively before allocating business resources.

Overall, the findings indicate that financial literacy is not merely an individual competency but a strategic capability embedded in entrepreneurs' daily business practices. Rather than directly determining business success, financial literacy shapes the quality of financial decision-making by enabling entrepreneurs to interpret financial information, develop disciplined financial practices, and utilize digital financial resources when making investment and expansion decisions.

Emergent Theoretical Model

The cross-case thematic analysis resulted in an emergent theoretical model explaining how financial literacy shapes financial decision-making among MSME owners. Rather than functioning as an isolated body of knowledge, financial literacy emerged as a strategic capability that is gradually transformed into managerial actions through interconnected cognitive, behavioural, and technological mechanisms.



Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

Figure 2. An Emerging Theoretical Model of How Financial Literacy Shapes Financial Decision Making

As illustrated in Figure 2, the process begins with financial literacy, which consists of three interrelated dimensions identified consistently across all participating cases: financial knowledge, financial behaviour, and digital financial capability. These dimensions do not independently determine financial decisions; instead, they interact continuously throughout entrepreneurs' daily business activities.

The analysis further revealed that financial literacy operates through three sequential mechanisms. First, knowledge interpretation enables entrepreneurs to understand financial information, evaluate business conditions, and assess available financial alternatives. Second, behavioural implementation translates financial understanding into disciplined managerial practices, including bookkeeping, budgeting, cash-flow monitoring, and financial evaluation. Third, digital enablement strengthens entrepreneurs' analytical capacity by facilitating access to financial information, digital transactions, and technology-based financial management.

Across the participating cases, these mechanisms collectively contributed to more planned financial decisions, particularly regarding capital allocation, operational expenditure, financing, and resource management. Improved financial planning subsequently supported investment decisions, where entrepreneurs evaluated expected returns, business risks, and available financial resources before committing additional capital. Ultimately, these investment decisions facilitated business expansion, including increasing production capacity, opening new business units, introducing new products, and expanding market coverage.

The findings also indicate that this process is influenced by several contextual factors observed across cases, including business characteristics, entrepreneurial experience, access to financial information, market dynamics, family support, and institutional environments. Although these contextual factors differed among participants, they primarily affected the intensity and manner in which financial literacy was translated into financial decision-making rather than altering the overall process itself.

Overall, the emergent model demonstrates that financial literacy should be understood not merely as financial knowledge but as a dynamic strategic capability embedded within entrepreneurs' daily managerial practices. The model further explains that planned financial decision-making is produced through the interaction between cognitive understanding, disciplined financial behaviour, and digital financial capability, all of which collectively strengthen MSMEs' capacity to undertake investment and business expansion decisions.

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

DISCUSSION

The findings of this study demonstrate that financial literacy extends beyond the acquisition of financial knowledge and functions as a strategic capability that shapes financial decision-making among MSME owners. The cross-case analysis revealed that entrepreneurs with stronger financial literacy consistently made more planned, rational, and evidence-based financial decisions, particularly regarding investment and business expansion. These findings reinforce the OECD (2020) framework, which conceptualizes financial literacy as an integration of financial knowledge, financial skills, attitudes, and financial behaviours that collectively support effective financial management. Rather than operating as isolated competencies, these dimensions interacted dynamically throughout the entrepreneurs' decision-making processes, enabling them to interpret financial information, evaluate available alternatives, and allocate financial resources more strategically.

A key finding of this study is that financial knowledge serves as the cognitive foundation for financial decision-making. Across all cases, participants emphasized that understanding financial concepts enabled them to distinguish between operational costs, business capital, profit, and future financial needs before making strategic decisions. This finding supports Kaiser et al. (2022), who demonstrated that financial education improves not only financial knowledge but also subsequent financial behaviours and decision quality. Similarly, Anshika et al. (2021) argued that financial literacy among micro and small enterprises develops through entrepreneurial experience, education, and access to financial information. The present findings extend this argument by showing that financial knowledge is not valuable merely because entrepreneurs possess it; rather, its value lies in the ability to transform financial information into managerial judgment. Consequently, financial knowledge should be understood as a cognitive resource that enables entrepreneurs to reduce uncertainty and evaluate business alternatives before committing financial resources.

Interestingly, the findings indicate that financial knowledge alone is insufficient to explain decision quality. Although all participants demonstrated varying levels of financial understanding, only those who consistently translated knowledge into disciplined financial practices reported more structured financial decisions. This finding challenges the conventional assumption that increasing financial knowledge automatically improves financial management. Instead, it suggests that financial knowledge becomes meaningful only when embedded in routine managerial practices. This interpretation is consistent with Graña-Alvarez et al. (2024), who argued that financial literacy should be viewed as an

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

organizational capability rather than merely an individual competency. Likewise, Molina-García et al. (2023) highlighted that emerging financial literacy research increasingly emphasizes behavioural implementation rather than cognitive knowledge alone. Therefore, the present study contributes by demonstrating that financial literacy operates as a process through which knowledge is continuously interpreted, applied, and refined within daily business activities.

Another important finding concerns the role of financial behaviour in shaping financial decision-making. Participants who routinely prepared budgets, recorded transactions, monitored cash flows, and separated business finances from household expenditures consistently demonstrated more planned financial decisions. This behavioural discipline reduced impulsive financial choices and enabled entrepreneurs to allocate financial resources more efficiently. These findings corroborate the OECD (2020) proposition that financial behaviour represents the practical manifestation of financial literacy and directly influences financial outcomes. They also support Yakob et al. (2021), who found that financially literate entrepreneurs achieve superior business performance through improved financial management practices. However, the present study extends previous quantitative evidence by explaining the underlying mechanism through which behavioural discipline mediates the relationship between financial literacy and financial decision-making. Rather than functioning as an independent determinant, financial behaviour emerged as the practical mechanism through which financial knowledge was transformed into managerial action.

The results further demonstrate that disciplined financial behaviour contributes to entrepreneurs' capacity to make planned financial decisions, particularly regarding investment planning and business expansion. This finding aligns with Basha et al. (2023), who reported that financial literacy contributes to more rational financing and leverage decisions among small firms. Nevertheless, while previous studies primarily examined financial outcomes through quantitative indicators, the present research reveals the internal decision-making processes preceding those outcomes. Entrepreneurs consistently described a sequence of evaluating financial conditions, assessing risks, considering alternative investments, and reviewing cash-flow availability before allocating additional capital. These findings suggest that planned financial decision-making constitutes an intermediate managerial process through which financial literacy ultimately contributes to business sustainability.

The emergence of digital financial capability as a major theme further enriches current understanding of financial literacy in MSMEs. Participants reported that digital financial applications, electronic payment systems, online banking, and digital bookkeeping

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

substantially improved their ability to monitor financial performance and evaluate investment opportunities. These findings strongly support the OECD (2023), which emphasizes that digital financial capability has become an essential component of financial literacy in contemporary business environments. Likewise, Aristei et al. (2024) demonstrated that financial literacy combined with digital financial capability encourages more sustainable investment decisions among micro-firms. The present study extends these findings by illustrating how digital technologies reduce information asymmetry, improve financial transparency, and strengthen entrepreneurs' confidence when making strategic financial decisions.

The findings also provide further support for previous research examining the strategic implications of financial literacy. García-Pérez-de-Lema et al. (2021) found that financially literate chief executive officers are more capable of overcoming financial constraints and promoting technological innovation. Similarly, Duréndez et al. (2023) argued that financial literacy indirectly influences innovation through management control systems and calculated risk-taking. Consistent with these studies, participants in the present research reported that better financial understanding enabled them to evaluate business risks more objectively before undertaking investment and expansion decisions. However, unlike previous studies that primarily investigated organizational outcomes, this research uncovers the cognitive and behavioural processes that precede strategic decisions. Consequently, financial literacy should be viewed not only as a predictor of organizational performance but also as an enabling capability that supports entrepreneurs' strategic reasoning under conditions of uncertainty.

Another notable contribution concerns the interaction among financial knowledge, financial behaviour, and digital financial capability. Rather than operating independently, these dimensions collectively formed an integrated capability shaping financial decision-making. Financial knowledge enabled entrepreneurs to understand financial information, financial behaviour translated that understanding into disciplined management practices, and digital financial capability strengthened access to information and analytical capacity. This integrated process extends the capability perspective proposed by Graña-Alvarez et al. (2024), suggesting that financial literacy should be conceptualized as a multidimensional managerial capability rather than a collection of isolated competencies. Such a perspective provides a more comprehensive explanation of why entrepreneurs with similar educational backgrounds often demonstrate substantially different financial decision-making practices.

The findings also have important theoretical implications for the financial literacy literature. Previous studies have predominantly employed quantitative approaches to investigate statistical relationships between financial literacy and business performance

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

(Kulathunga et al., 2020; Yakob et al., 2021; Tuffour et al., 2022; Basha et al., 2023). While these studies consistently report positive associations, they provide limited understanding of the mechanisms explaining how financial literacy influences managerial decision-making. Responding to the research agenda proposed by Molina-García et al. (2023) and Graña-Alvarez et al. (2024), this study adopts a qualitative multiple case study approach to reveal the cognitive, behavioural, and contextual processes underlying financial decision-making among MSME owners. The resulting emergent model demonstrates that financial literacy shapes decision-making through a sequential process involving financial knowledge, behavioural implementation, digital capability, planned financial decisions, investment evaluation, and business expansion.

Finally, the findings suggest that strengthening financial literacy policies for MSMEs should move beyond traditional financial education programs that primarily emphasize knowledge acquisition. Educational initiatives should simultaneously cultivate disciplined financial behaviours and digital financial capabilities to enable entrepreneurs to apply financial knowledge effectively in real business contexts. Financial literacy therefore represents not merely an educational outcome but a strategic managerial capability that enables MSME owners to interpret financial information, evaluate business opportunities, manage uncertainty, and undertake sustainable investment and expansion decisions. By explaining the underlying mechanisms through which financial literacy shapes financial decision-making, this study contributes to the growing body of literature on entrepreneurial financial capability and provides a richer theoretical understanding of financial decision-making within MSMEs.

CONCLUSION

This study concludes that financial literacy functions as a strategic capability that shapes financial decision-making among MSME owners. The findings indicate that financial knowledge, financial behaviour, and digital financial capability interact to support more planned and rational decisions related to financial management, investment, and business expansion. Financial literacy therefore extends beyond financial knowledge, as its value lies in entrepreneurs' ability to apply financial understanding in everyday business practices.

The study contributes to the financial literacy literature by explaining the mechanisms through which financial literacy is translated into managerial actions within MSMEs. The proposed emergent model provides a deeper understanding of the relationship between financial literacy and financial decision-making while highlighting the importance of integrating financial education, behavioural development, and digital financial capability

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

in MSME development programs. Such an integrated approach can strengthen business resilience and support sustainable enterprise growth.

Recommendations

Based on the findings, future financial literacy programs for MSMEs should adopt a more integrated approach by combining financial knowledge, behavioural training, and digital financial capability. Government agencies, financial institutions, and entrepreneurship support organizations are encouraged to design practical and technology-oriented capacity-building programs that strengthen entrepreneurs' ability to make informed financial decisions and improve business sustainability.

Future research is recommended to examine the proposed emergent model across different business sectors, regions, and cultural contexts using qualitative, quantitative, or mixed-method approaches. Comparative and longitudinal studies would also provide a deeper understanding of how financial literacy evolves over time and influences strategic financial decision-making throughout different stages of MSME development.

Limitations and suggestions for further study

This study has several limitations that should be considered when interpreting its findings. First, the research employed a qualitative multiple case study design involving MSMEs in a single regency, which may limit the transferability of the findings to other geographical and socio-economic contexts. Second, the study focused primarily on MSME owners as key informants; therefore, the perspectives of other stakeholders, such as employees, family members, financial institutions, or business advisors, were not incorporated. Finally, although the study identified the roles of financial knowledge, financial behaviour, and digital financial capability in shaping financial decision-making, it did not examine how these capabilities evolve over time.

Future research should validate the proposed emergent model using quantitative or mixed-method approaches across broader samples and diverse business sectors. Comparative studies involving different regions or countries and longitudinal research are also recommended to examine how financial literacy develops and influences financial decision-making throughout different stages of MSME growth. Such studies would strengthen the generalizability of the findings while providing a more comprehensive understanding of financial literacy as a strategic capability in entrepreneurial contexts.

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Business and Quality Research
https://e-journal.citakonsultindo.or.id/index.php/IJBQR
E-ISSN: 2985-9468

REFERENCES

Anshika, Singla, A., & Mallik, G. (2021). Determinants of financial literacy: Empirical evidence from micro and small enterprises in India. *Asia Pacific Management Review, 26*(4), 248–255. https://doi.org/10.1016/j.apmrv.2021.03.001

Aristei, D., Gallo, M., & Vannoni, V. (2024). Preferences for ethical intermediaries and sustainable investment decisions in micro-firms: The role of financial literacy and digital financial capability. *Research in International Business and Finance, 71*, Article 102483. https://doi.org/10.1016/j.ribaf.2024.102483

Balasubramnian, B., & Sargent, C. S. (2020). Impact of inflated perceptions of financial literacy on financial decision making. *Journal of Economic Psychology, 80*, Article 102306. https://doi.org/10.1016/j.joep.2020.102306

Basha, S. A., Bennasr, H., & Goaied, M. (2023). Financial literacy, financial development, and leverage of small firms. *International Review of Financial Analysis, 86*, Article 102510. https://doi.org/10.1016/j.irfa.2023.102510

Braun, V., & Clarke, V. (2022). *Thematic analysis: A practical guide*. SAGE Publications.

Creswell, J. W., & Poth, C. N. (2024). *Qualitative inquiry and research design: Choosing among five approaches* (5th ed.). SAGE Publications.

Duréndez, A., Diéguez-Soto, J., & Madrid-Guijarro, A. (2023). The influence of CEO's financial literacy on SMEs' technological innovation: The mediating effects of management control systems and risk-taking. *Financial Innovation, 9*, Article 15. https://doi.org/10.1186/s40854-022-00414-w

García-Pérez-de-Lema, D., Ruiz-Palomo, D., & Diéguez-Soto, J. (2021). Analysing the roles of CEO's financial literacy and financial constraints on Spanish SMEs' technological innovation. *Technology in Society, 64*, Article 101519. https://doi.org/10.1016/j.techsoc.2020.101519

Graña-Alvarez, R., Gomez-Conde, J., Lopez-Valeiras, E., & González-Loureiro, M. (2024). Management control systems, business financial literacy and financial leverage in business-incubated start-ups. *The British Accounting Review, 56*(6), Article 101427. https://doi.org/10.1016/j.bar.2024.101427

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.

Graña-Alvarez, R., Lopez-Valeiras, E., González-Loureiro, M., & Coronado, F. (2024). Financial literacy in SMEs: A systematic literature review and a framework for further inquiry. *Journal of Small Business Management, 62*(1), 331–380. https://doi.org/10.1080/00472778.2022.2051176

Kaiser, T., Lusardi, A., Menkhoff, L., & Urban, C. (2022). Financial education affects financial knowledge and downstream behaviors. *Journal of Financial Economics, 145*(2), 255–272. https://doi.org/10.1016/j.jfineco.2021.09.022

Kulathunga, K. M. M. C. B., Ye, J., Sharma, S., & Weerathunga, P. R. (2020). How does technological and financial literacy influence SME performance: Mediating role of ERM practices. *Information, 11*(6), Article 297. https://doi.org/10.3390/info11060297

Molina-García, A., Diéguez-Soto, J., Galache-Laza, M. T., & Campos-Valenzuela, M. (2023). Financial literacy in SMEs: A bibliometric analysis and a systematic literature review of an emerging research field. *Review of Managerial Science, 17*(3), 787–826. https://doi.org/10.1007/s11846-022-00556-2

Organisation for Economic Co-operation and Development. (2020). *OECD/INFE survey instrument to measure the financial literacy of MSMEs*. https://doi.org/10.1787/97746fba-en

Organisation for Economic Co-operation and Development. (2023). *Financial literacy and digitalisation for MSMEs in South East Europe*. https://doi.org/10.1787/b63091ad-en

Tuffour, J. K., Amoako, A. A., & Amartey, E. O. (2022). Assessing the effect of financial literacy among managers on the performance of small-scale enterprises. *Global Business Review, 23*(5), 1200–1217. https://doi.org/10.1177/0972150919899753

Yakob, S., Yakob, R., Hafizuddin-Syah, B. A. M., & 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

Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). SAGE Publications.

Copyright to the author of some rights reserved This work is licensed under aCreative Commons Attribution-ShareAlike 4.0 International License.