

## Pathways to Cash Flow Agility through Working Capital Flexibility among Micro, Small, and Medium Enterprises

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### Abstract

This study investigates how financial literacy and management practices are associated with cash flow agility through working capital flexibility among active micro, small, and medium-sized enterprises (MSMEs) surveyed on Tidore Island, Indonesia. A quantitative cross-sectional design was employed using data collected from 384 MSME owners and managers through a field-based convenience sampling procedure. The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results indicate that financial literacy is not significantly associated with cash flow agility, whereas management practices are positively associated with cash flow agility. Both financial literacy and management practices are positively associated with working capital flexibility. Among the examined relationships, working capital flexibility exhibits the largest standardized direct coefficient for cash flow agility, although its effect size is small ( $f^2 = 0.145$ ). Indirect-effect analysis indicates significant indirect relationships between financial literacy and cash flow agility and between management practices and cash flow agility through working capital flexibility. These findings indicate that working capital flexibility represents an important statistical link between financial and managerial capabilities and adaptive cash flow responses among the surveyed MSMEs. However, because this study employed a cross-sectional design and field-based convenience sampling, the findings should be interpreted as associational rather than causal and generalized cautiously beyond the sampled MSMEs.

## Jalur Menuju Cash Flow Agility melalui Fleksibilitas Modal Kerja pada Usaha Mikro, Kecil, dan Menengah

### Abstrak

Penelitian ini bertujuan menganalisis hubungan literasi keuangan dan praktik manajemen dengan cash flow agility melalui fleksibilitas modal kerja pada usaha mikro, kecil, dan menengah (UMKM) aktif yang disurvei di Pulau Tidore, Indonesia. Penelitian menggunakan desain kuantitatif dengan pendekatan cross-sectional. Data dikumpulkan dari 384 pemilik dan pengelola UMKM melalui prosedur convenience sampling berbasis lapangan. Data dianalisis menggunakan Partial Least Squares Structural Equation Modeling (PLS-SEM). Hasil penelitian menunjukkan bahwa literasi keuangan tidak berhubungan secara signifikan secara langsung dengan cash flow agility, sedangkan praktik manajemen berhubungan positif dengan cash flow agility. Literasi keuangan dan praktik manajemen juga berhubungan positif dengan fleksibilitas modal kerja. Di antara hubungan yang diuji, fleksibilitas modal kerja menunjukkan koefisien terstandarisasi langsung terbesar terhadap cash flow agility, meskipun ukuran efeknya tergolong kecil ( $f^2 = 0,146$ ). Analisis efek tidak langsung menunjukkan adanya hubungan tidak langsung yang signifikan antara literasi keuangan dan cash flow agility serta antara praktik manajemen dan cash flow agility melalui fleksibilitas modal kerja. Temuan ini menunjukkan bahwa fleksibilitas modal kerja merupakan keterkaitan statistik penting antara kapabilitas keuangan dan manajerial dengan respons arus kas adaptif pada UMKM yang diteliti. Namun, karena penelitian menggunakan desain cross-sectional dan convenience sampling berbasis lapangan, temuan perlu ditafsirkan sebagai hubungan asosiatif, bukan kausal, dan digeneralisasikan secara hati-hati di luar UMKM yang menjadi sampel penelitian.

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## INTRODUCTION

Micro, small, and medium enterprises (MSMEs) play a vital role in economic growth, employment generation, and local economic development. Despite their substantial economic contribution, MSMEs remain highly vulnerable to financial uncertainty due to limited financial resources, constrained access to external financing, and rising market volatility (Bakhtiari et al., 2020; Eggers, 2020; Juergensen et al., 2020). These challenges have intensified liquidity pressures, making effective cash flow management essential for maintaining business continuity and enhancing firms' capacity to respond to changing business environments (Afrifa & Tingbani, 2018; Dzingirai & Ndava, 2022; Nasimi-yu, 2024). Recent studies further indicate that firms with greater financial flexibility and more effective cash flow management are better positioned to strengthen resilience and sustain business performance under uncertain conditions (Bagh et al., 2024; Kiymaz et al., 2024; Supramono et al., 2025). Nevertheless, while the importance of effective cash flow management has been widely acknowledged, limited attention has been paid to understanding how MSMEs develop adaptive financial capabilities to anticipate and respond proactively to cash flow fluctuations in increasingly dynamic business environments. This issue has emerged as an important concern in contemporary financial management research.

Increasing business uncertainty requires MSMEs to move beyond conventional cash flow management. In highly dynamic markets, firms are expected not only to monitor and control cash flows but also to anticipate financial disruptions, rapidly reallocate financial resources, and respond effectively to unexpected liquidity changes. Previous studies have emphasized the roles of cash flow management, working capital management, and financial flexibility in improving bu-

siness performance (Afrifa & Tingbani, 2018; Dzingirai & Ndava, 2022; Wu et al., 2024). Meanwhile, the organizational agility literature argues that firms must continuously sense environmental changes and respond rapidly to sustain resilience and long-term competitiveness (Sarta et al., 2021; Zighan & Dwaikat, 2023). Drawing on this perspective and Dynamic Capability Theory, this study conceptualizes cashflow agility as a higher-order adaptive financial capability that enables MSMEs to anticipate, adapt to, and respond effectively to cash-flow fluctuations amid dynamic business conditions. Unlike conventional cash flow management, which emphasizes planning, monitoring, and control, cash flow agility reflects the capability to continuously adjust financial responses to environmental changes and unexpected liquidity challenges.

Financial literacy is widely recognized as an essential capability that enables MSME owners to make informed financial decisions. It improves budgeting, financial planning, and the effective utilization of business resources (Kizza, 2019; Kumari et al., 2024; Zai et al., 2024). Empirical evidence consistently shows that financially literate entrepreneurs achieve superior financial performance and greater business sustainability. Nevertheless, prior studies have predominantly examined the direct association between financial literacy and financial performance or business success, with limited attention to its role in developing adaptive financial capabilities amid cash flow uncertainty. Financial knowledge alone may not be sufficient to support rapid responses to unexpected liquidity changes unless it is accompanied by the capabilities to adjust financial resources. This gap indicates the need to examine the association between financial literacy and cash flow agility and working capital flexibility.

Management Practices are also recognized as an important determinant of MSME performance because they influen-

ce how firms plan, organize, coordinate, and control organizational resources. Effective management practices support operational efficiency, financial discipline, and decision-making quality. Previous studies consistently report positive associations between management practices and firm productivity or financial performance (Ramzi et al., 2022; Mutambara, 2024). However, these studies largely emphasize efficiency-oriented outcomes and pay limited attention to adaptive financial capabilities required to cope with uncertain business environments. Consequently, little is known about how management practices are associated with firms' capability to respond effectively to cash flow fluctuations and adjust short-term financial resources. This limitation indicates the need to examine the association between management practices, working capital flexibility, and cash flow agility.

Working capital management has long been recognized as an important determinant of MSME liquidity and financial performance. Previous studies demonstrate that effective management of cash, receivables, and inventories improves profitability and firm value (Wasiuzzaman, 2015; Kieschnick et al., 2023). However, existing studies primarily emphasize efficiency and liquidity optimization rather than the flexibility required to respond to rapidly changing financial conditions. Drawing on Dynamic Capability Theory, this study conceptualizes working capital flexibility as a firm's capability to reconfigure and reallocate short-term financial resources in response to changing liquidity conditions. Rather than functioning solely as an operational efficiency mechanism, working capital flexibility represents an adaptive financial capability that may be associated with cash flow agility and may provide an intervening pathway linking financial literacy and management practices with adaptive cash flow responses.

Although previous studies have examined financial literacy, management

practices, and working capital management separately, three important research gaps remain. First, existing studies predominantly focus on financial performance, profitability, or business sustainability, while providing limited evidence on adaptive financial capabilities amid financial uncertainty. Second, the concept of cash flow agility remains largely unexplored in the MSME literature despite its potential importance for organizational resilience in dynamic business environments. Third, limited empirical attention has been paid to the relationships among financial literacy, management practices, working capital flexibility, and cash flow agility, particularly whether working capital flexibility serves as an intervening pathway in the relationships between financial literacy and cash flow agility, and between management practices and cash flow agility. Addressing these gaps, this study investigates the relationships between financial literacy and management practices and cash flow agility and examines the mediating role of working capital flexibility among active MSMEs surveyed on Tidore Island, Indonesia.

This study makes three contributions to the literature. First, it introduces cash flow agility as an adaptive financial capability that extends the discussion of financial management beyond conventional cash flow efficiency, emphasizing firms' ability to anticipate and respond to changing liquidity conditions. Second, it proposes working capital flexibility as an important intervening pathway that links managerial and financial capabilities to adaptive cash flow responses. Third, it provides empirical evidence regarding the direct and indirect relationships among financial literacy, management practices, working capital flexibility, and cash flow agility among active MSMEs surveyed on Tidore Island, Indonesia. Collectively, these contributions extend the application of Dynamic Capability Theory by examining how managerial and financial capabilities

are associated with adaptive financial capabilities that support MSME resilience amid business uncertainty.

### **Hypothesis Development**

#### **The Relationship between Financial Literacy and Cash Flow Agility**

Financial literacy refers to the ability of MSME owners to understand, evaluate, and apply financial knowledge in making effective business decisions. Financially literate entrepreneurs are better equipped to plan finances, manage cash flows, evaluate financing alternatives, and allocate financial resources efficiently. Consequently, financial literacy is an important internal capability that supports sound financial decision-making and strengthens financial management in MSMEs (Kizza, 2019; Kumari et al., 2024; Zai et al., 2024).

Cash flow agility refers to MSMEs' capability to anticipate, adapt to, and respond effectively to cash flow fluctuations in dynamic business environments. Drawing on Dynamic Capability Theory, firms develop adaptive capabilities by sensing environmental changes, seizing opportunities, and reconfiguring resources to address uncertainty (Teece, 2007, 2025). From this perspective, financial literacy equips entrepreneurs with the knowledge to interpret financial information, identify potential liquidity risks, and make timely financial decisions amid changing business conditions. Such knowledge enables MSMEs to respond more effectively to financial uncertainty by supporting adaptive financial decision-making. Empirical evidence also suggests that financially literate entrepreneurs demonstrate better financial planning, more efficient resource allocation, and greater business resilience (Kumari et al., 2024; Zuhroh et al., 2025). Although previous studies have consistently demonstrated the contribution of financial literacy to financial performance and business sustainability, its role in explaining cash flow agility remains limited.

Existing studies have primarily focused on financial outcomes while paying less attention to adaptive financial capabilities that enable MSMEs to anticipate and respond to cash flow fluctuations in dynamic business environments. Addressing this gap, this study proposes that higher levels of financial literacy are expected to enhance MSMEs' capability to develop cash flow agility.

Based on the theoretical arguments and empirical evidence presented above, the following hypothesis is proposed:

H1: Financial literacy is positively associated with cash flow agility

#### **The Relationship between Management Practices and Cash Flow Agility**

Management practices refer to the managerial activities involved in planning, organizing, coordinating, and controlling organizational resources to achieve business objectives. In MSMEs, effective management practices provide a structured basis for financial planning, resource coordination, and operational control. These practices can support organizational discipline and facilitate timely managerial decision-making when firms face operational and financial challenges (Ramzi et al., 2022; Mutambara, 2024).

Cash Flow Agility refers to MSMEs' capability to anticipate, adapt to, and respond effectively to cash flow fluctuations in dynamic business environments. Drawing on Dynamic Capability Theory, firms develop adaptive capabilities through managerial processes that enable them to sense environmental changes, seize opportunities, and reconfigure organizational resources in response to changing conditions (Teece, 2007, 2025). From this perspective, management practices provide organizational processes through which managerial resources can be coordinated and adjusted in response to environmental and financial uncertainty. Effective planning, coordination, and control may

therefore support MSMEs in making timely decisions, reallocating resources, and responding to changing cash flow conditions. Previous studies also indicate that management practices are associated with improved organizational performance and with MSMEs' capacity to manage operational challenges (Ramzi et al., 2022; Mutambara, 2024).

Although previous studies have established the importance of management practices for MSME performance, their association with cash flow agility remains underexplored. Existing research has largely emphasized productivity, operational efficiency, and financial performance, while providing limited attention to the adaptive financial capability required to respond to cash flow fluctuations. In dynamic business environments, MSMEs require managerial processes that facilitate timely decision-making, effective resource coordination, and appropriate responses to financial uncertainty. Accordingly, stronger management practices are expected to be associated with greater cash flow agility.

Based on the theoretical arguments and empirical evidence presented above, the following hypothesis is proposed:

H2: Management practices are positively associated with cash flow agility

### **The Relationship between Financial Literacy and Working Capital Flexibility**

Financial literacy refers to the ability of MSME owners to understand, evaluate, and apply financial knowledge in making effective business decisions. Financially literate entrepreneurs are better equipped to plan finances, monitor cash inflows and outflows, evaluate financing alternatives, and allocate financial resources efficiently. Consequently, financial literacy represents an important internal capability that supports informed financial decision-making and effective financial management within MSMEs (Kizza, 2019; Kumari et al.,

2024; Zai et al., 2024).

Working capital flexibility refers to MSMEs' capability to adjust and reallocate short-term financial resources in response to changing operational and financial conditions. Drawing on Dynamic Capability Theory, firms develop adaptive capabilities by sensing environmental changes, seizing opportunities, and reconfiguring available resources in response to uncertainty (Teece, 2007, 2025). From this perspective, financial knowledge can provide an important basis for recognizing changes in liquidity requirements and making informed decisions concerning cash, receivables, inventories, and short-term financing. Financially literate entrepreneurs may therefore be better positioned to assess working capital requirements and adjust short-term financial resources when business conditions change. Empirical studies also indicate that financial literacy is associated with better financial planning, liquidity management, and resource allocation among entrepreneurs (Kumari et al., 2024; Zuhroh et al., 2025).

Although previous studies have established the importance of financial literacy for financial management and business performance, its association with working capital flexibility remains underexplored. Existing research has largely focused on financial knowledge and financial outcomes, with less attention to whether such knowledge is associated with the capability to adjust and reallocate working capital under changing business conditions. For MSMEs operating in dynamic environments, the ability to recognize liquidity requirements and make informed adjustments to short-term financial resources is particularly important. Accordingly, MSMEs with higher levels of financial literacy are expected to exhibit greater working capital flexibility.

Based on the theoretical arguments and empirical evidence presented above, the following hypothesis is proposed:

H3: Financial literacy is positively associated with working capital flexibility

### **The Relationship between Management Practices and Working Capital Flexibility**

Management Practices refer to the managerial activities involved in planning, organizing, coordinating, and controlling organizational resources to achieve business objectives. In MSMEs, effective management practices provide a structured basis for financial planning, operational coordination, and performance monitoring. These practices support disciplined managerial processes and may facilitate more efficient resource allocation and adjustment of working capital in response to changing operational and financial conditions (Ramzi et al., 2022; Mutambara, 2024).

Working capital flexibility refers to MSMEs' capability to adjust and reallocate short-term financial resources in response to changing operational and financial conditions. Drawing on Dynamic Capability Theory, organizations develop adaptive capabilities through managerial processes that enable them to sense environmental changes, seize opportunities, and reconfigure resources in response to changing conditions (Teece, 2007, 2025). From this perspective, effective management practices provide organizational processes to coordinate financial activities, monitor working capital, and make timely operational decisions. Such practices may help MSMEs adjust cash, receivables, inventories, and short-term financial resources as operational requirements change. Empirical evidence also indicates that sound management practices are associated with organizational efficiency, financial discipline, and effective resource utilization among MSMEs (Ramzi et al., 2022; Mutambara, 2024).

Although previous studies have es-

tablished the importance of management practices for organizational performance and financial management, their association with working capital flexibility remains underexplored. Existing research has primarily emphasized productivity, operational efficiency, and financial outcomes, while paying limited attention to MSMEs' ability to adjust and reallocate working capital under changing business conditions. In uncertain environments, effective managerial processes are important for coordinating financial resources and responding to changing operational requirements. Accordingly, MSMEs with stronger management practices are expected to exhibit greater working capital flexibility.

Based on the theoretical arguments and empirical evidence presented above, the following hypothesis is proposed:

H4: Management practices are positively associated with working capital flexibility.

### **Working Capital Flexibility and Cash Flow Agility**

Working Capital Flexibility refers to MSMEs' capability to adjust and reallocate short-term financial resources in response to changing operational and financial conditions. This capability reflects the flexibility to adjust cash, receivables, inventories, and short-term financial resources while maintaining adequate liquidity under business uncertainty. Such flexibility is particularly relevant for MSMEs because changing operational requirements and market conditions may create fluctuations in short-term financial needs.

Cash Flow Agility refers to MSMEs' capability to anticipate, adapt to, and respond effectively to cash flow fluctuations in dynamic business environments. Drawing on Dynamic Capability Theory, firms develop adaptive capabilities by sensing environmental changes, seizing opportunities, and reconfiguring organizational resources in response to uncertain-

ty (Teece et al., 1997; Teece, 2007, 2025). From this perspective, Working Capital Flexibility represents a resource-reconfiguration capability that allows MSMEs to adjust short-term financial resources when operational and liquidity conditions change. The ability to reallocate working capital may provide firms with greater room to accommodate fluctuations in cash requirements and respond to emerging financial pressures. Empirical evidence also indicates that effective working capital management is associated with liquidity, financial resilience, and organizational adaptability under uncertain business conditions (Bagh et al., 2024; Kiymaz et al., 2024; Supramono et al., 2025).

Although previous studies have established the importance of working capital management for firm performance and liquidity, the association between working capital flexibility and cash flow agility remains underexplored. Existing research has primarily emphasized the efficiency and optimization of working capital, while less attention has been given to the flexibility to reconfigure short-term financial resources as cash flow conditions change. For MSMEs operating in uncertain environments, the ability to adjust and reallocate working capital may be particularly important for responding to fluctuations in liquidity requirements. Accordingly, MSMEs with greater working capital flexibility are expected to exhibit higher levels of cash flow agility.

Based on the theoretical arguments and empirical evidence presented above, the following hypothesis is proposed:

H5: Working capital flexibility is positively associated with cash flow agility.

### **The Mediating Role of Working Capital Flexibility in the Relationship between Financial Literacy and Cash Flow Agility**

Financial literacy equips MSMEs owners with knowledge and skills that

support informed financial decision-making, including cash flow planning, financial resource allocation, and working capital management. However, financial knowledge alone may not be sufficient to support cash flow agility unless it is accompanied by the capability to adjust short-term financial resources in response to changing business conditions. In this context, working capital flexibility is an important organizational capability that may link financial knowledge to adaptive financial responses by enabling MSMEs to adjust and reallocate short-term financial resources as operational and financial conditions change.

Drawing on Dynamic Capability Theory, firms develop adaptive capabilities through processes of sensing environmental changes, seizing opportunities, and reconfiguring resources in response to uncertainty (Teece et al., 1997; Teece, 2007, 2025). From this perspective, financial literacy provides a knowledge base for informed financial decision-making, while working capital flexibility reflects the capability to adjust and reconfigure short-term financial resources. Financial literacy may therefore be associated with greater working capital flexibility, which in turn may be associated with cash flow agility. Empirical evidence indicates that financial literacy is associated with financial planning, liquidity management, and resource allocation (Kumari et al., 2024; Zuhroh et al., 2025), while effective working capital management is associated with financial resilience and organizational adaptability under business uncertainty (Bagh et al., 2024; Kiymaz et al., 2024; Supramono et al., 2025).

Although previous studies have established the importance of financial literacy for financial management and business performance, limited attention has been given to the indirect relationship between financial literacy and cash flow agility through working capital flexibility. In

particular, little is known about whether the association between financial literacy and cash flow agility is accompanied by greater working capital flexibility among MSMEs. Accordingly, working capital flexibility is proposed as a mediating variable in the relationship between financial literacy and cash flow agility.

Based on the theoretical arguments and empirical evidence presented above, the following hypothesis is proposed:

H6: Working capital flexibility mediates the positive association between financial literacy and cash flow agility.

### **The Mediating Role of Working Capital Flexibility in the Relationship between Management Practices and Cash Flow Agility**

Management practices provide MSMEs with structured managerial processes for planning, organizing, coordinating, and controlling organizational resources. These practices support financial discipline, operational coordination, and timely managerial decision-making. However, Management Practices may not be sufficient on their own to support cash flow agility if MSMEs lack the flexibility to adjust and reallocate short-term financial resources in response to changing business conditions. In this context, working capital flexibility is an important organizational capability that may link managerial processes to adaptive financial responses.

Drawing on Dynamic Capability Theory, firms develop adaptive capabilities by sensing environmental changes, seizing opportunities, and reconfiguring resources in response to uncertainty (Teece et al., 1997; Teece, 2007, 2025). From this perspective, management practices provide organizational processes for planning, coordination, monitoring, and resource allocation, while working capital flexibility reflects the capability to adjust and reconfigure short-term financial resources. Management Practices may therefore be

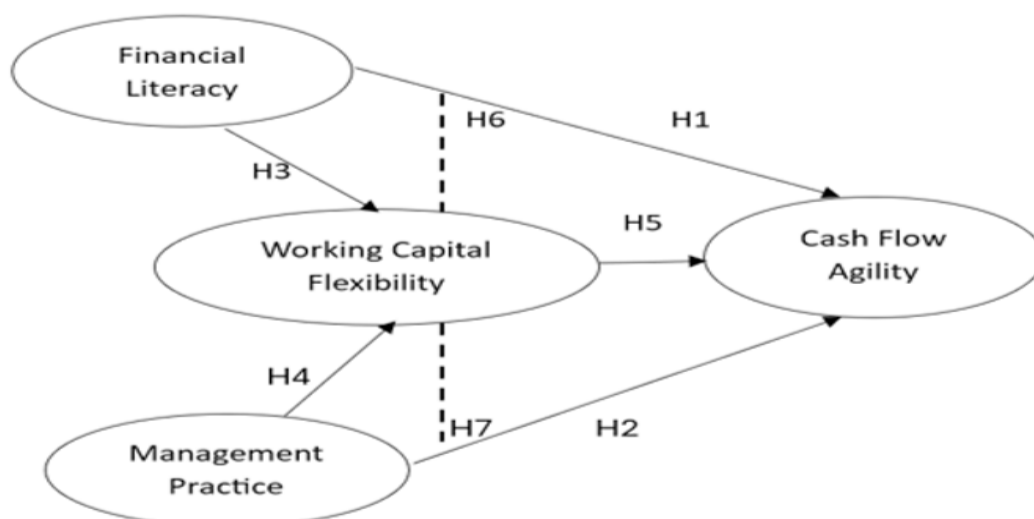
associated with greater working capital flexibility, which in turn may be associated with cash flow agility. Empirical evidence indicates that sound management practices are associated with organizational responsiveness, financial discipline, and business resilience (Ramzi et al., 2022), while effective working capital management is associated with liquidity, financial resilience, and organizational adaptability under business uncertainty (Bagh et al., 2024; Kiymaz et al., 2024).

Although previous studies have established the importance of management practices for organizational performance and financial management, limited attention has been given to the indirect relationship between management practices and cash flow agility through working capital flexibility. Existing research has largely examined the direct contribution of management practices to organizational and financial outcomes, while less attention has been paid to whether working capital flexibility serves as an intervening pathway between managerial practices and adaptive cash flow responses. Accordingly, working capital flexibility is proposed as a mediating variable in the relationship between management practices and cash flow agility.

Based on the theoretical arguments and empirical evidence presented above, the following hypothesis is proposed:

H7: Working capital flexibility mediates the positive association between management practices and cash flow agility.

Based on the theoretical arguments and hypotheses developed above, this study proposes an integrated conceptual framework illustrating the relationships among financial literacy, management practices, working capital flexibility, and cash flow agility. The proposed research model is presented in Figure 1.



**Figure 1.** Conceptual Framework

## METHOD

### Research Design and Context

This study employed a quantitative explanatory research design with a cross-sectional approach to examine the associations among financial literacy, management practices, working capital flexibility, and cash flow agility among micro, small, and medium-sized enterprises (MSMEs). The study was conducted among active MSMEs surveyed on Tidore Island, Indonesia. A quantitative approach was used to empirically examine the proposed associations among the research constructs, and the cross-sectional design involved collecting data from respondents during a single period.

The conceptual framework was developed from relevant literature and insights drawn from the authors' prior qualitative study and was subsequently examined using quantitative data. The study focused on MSME owners or managers because they are directly involved in financial decision-making, resource allocation, working capital management, and day-to-day business operations.

### Population, Sample, and Sampling Procedure

The population of this study comprised MSMEs operating on Tidore Island,

Indonesia. An official MSME database was obtained from the Department of Cooperatives and SMEs and was initially used to identify MSMEs and their geographical distribution. However, field verification revealed discrepancies between the registered records and the actual field conditions. Some businesses listed in the database were no longer active, while others could not be identified at their registered locations.

Given these conditions, the study employed a non-probability convenience sampling procedure with an intercept approach. The researchers visited MSMEs directly at their business locations across villages on Tidore Island and approached business owners or managers who were present and willing to participate. Only active MSMEs were eligible for inclusion in the survey. Respondents were recruited until the required minimum sample size was reached.

The minimum sample size was determined using Cochran's sample size formula (Cochran, 1977). The formula is expressed as  $n_0 = Z^2 p(1-p)/e^2$ , where  $Z$  is the standard normal value,  $p$  is the estimated population proportion, and  $e$  is the margin of error. Using a 95% confidence level  $Z=1.96$ ,  $p=0.50$ , and a 5% margin of error ( $e=0.05$ ), the calculation yields  $n_0 = 1.96^2 (0.50)(0.50)/(0.05)^2 = 384.16$ , which was

rounded to 384 respondents. Accordingly, the final dataset consisted of 384 valid responses from MSME owners or managers. The use of field-based convenience/intercept sampling was considered appropriate given the discrepancy between administrative MSME records and verified MSME conditions in the field. However, because the sampling procedure was non-probabilistic, the findings should be interpreted cautiously and should not be generalized beyond the surveyed MSMEs without further evidence.

### **Data Type and Data Sources**

This study used primary quantitative data. The primary data were obtained directly from MSME owners or managers through a structured questionnaire administered during the field survey. The respondents provided information on their perceptions and practices regarding financial literacy, management practices, working capital flexibility, and cash flow agility.

An administrative MSME database obtained from the Department of Cooperatives and SMEs was used as an initial reference to identify MSMEs and to support the field survey process. However, because field verification identified inactive or untraceable businesses in the administrative records, the final analytical sample comprised active MSMEs identified and surveyed directly in the field.

### **Data Collection Technique**

Data were collected through a structured field survey conducted from August to October 2025. Based on Cochran's formula, the minimum required sample size was 384 respondents. To anticipate potential nonresponse, 435 questionnaires were distributed to eligible respondents. During the data collection period, the researchers visited MSME business locations across villages on Tidore Island and approached business owners or managers directly. Before completing the questionnaire, res-

pondents were informed of the study's purpose and objectives and assured that the information they provided would be treated confidentially. Participation was voluntary, and the questionnaire was administered only to MSME owners or managers who met the study criteria and agreed to participate.

The questionnaire consisted of two sections. The first section collected information on respondents' demographic and business characteristics. The second section contained statements measuring the four research constructs. Respondents indicated their level of agreement with each statement using a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree (Koo & Yang, 2025).

Of the 435 questionnaires distributed, 51 were not returned, and 384 valid responses were retained for the final analysis, yielding a usable response rate of 88.3%. Because no response data were available for the non-returned questionnaires, a formal statistical assessment of nonresponse bias was not possible.

### **Variable Measurement**

This study examined four constructs: Financial Literacy (FL), Management Practices (MP), Working Capital Flexibility (WCF), and Cash Flow Agility (CFA). Financial literacy and management practices were measured using indicators adapted from previous studies and contextualized to the MSME setting, while working capital flexibility and cash flow agility were developed from the authors' qualitative research. The operational definitions, measurement indicators, and sources for each construct are presented in Table 1.

This study examined four constructs: Financial Literacy (FL), Management Practices (MP), Working Capital Flexibility (WCF), and Cash Flow Agility (CFA). FL indicators were adapted from previous studies, while MP and CFA were informed by the authors' qualitative research and

contextualized to the MSME setting. The qualitative data were thematically analyzed using MAXQDA, with the findings informing the contextualization of the MP and CFA indicators. WCF was included based on recurring field observations of

MSMEs' difficulties in maintaining continuity of working capital. The operational definitions, measurement indicators, and sources are presented in Table 1, while the complete item wording and response-scale anchors are provided in Appendix A.

**Table 1.** Operational Definition and Measurement of Variables

| Variable                          | Operational Definition                                                                                                                                            | Measurement Indicators                                                                                                                                                                    | Source                                                                                                     |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Financial Literacy (FL)           | The capability of MSME owners or managers to understand and apply financial knowledge in business decision-making.                                                | FL1: Financial knowledge; FL2: Budgeting capability; FL3: Financial statement literacy; FL4: Working capital knowledge; FL5: Financial risk awareness; FL6: Debt management understanding | Adapted from Kumari et al. (2024); Zuhroh et al. (2025)                                                    |
| Management Practices (MP)         | The managerial capability of MSMEs to plan, organize, and control business operations effectively.                                                                | MP1: Financial recordkeeping; MP2: Marketing strategy; MP3: Financial separation; MP4: Supplier relationship management                                                                   | Adapted from Ramzi et al. (2022), Mutambara (2024), and refined based on the authors' qualitative findings |
| Working Capital Flexibility (WCF) | The capability of MSMEs to adjust and manage working capital resources in response to changing business conditions while maintaining operational continuity.      | WCF1: Flexible cash allocation; WCF2: Spending prioritization; WCF3: Emergency savings; WCF4: Emergency response; WCF5: Cash flow monitoring                                              | Developed from the authors' qualitative research                                                           |
| Cash Flow Agility (CFA)           | The capability of MSMEs to anticipate, adapt to, and respond effectively to cash flow fluctuations while maintaining business continuity in dynamic environments. | CFA1: Operational adjustment; CFA2: Financial resilience; CFA3: Sustainable production; CFA4: Product/service innovation; CFA5: Cost efficiency strategy                                  | Developed from the authors' qualitative research                                                           |

*Note:* FL6 and MP3 were removed during measurement model assessment because their outer loadings did not meet the recommended threshold.

### Data Analysis Technique

Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) implemented through the *sempr* package in R (Hair et al., 2021). PLS-SEM was used because the study has a prediction-oriented objective and models relationships among composite

constructs, including direct and indirect associations. The four constructs were specified as composites because their indicators capture distinct yet complementary aspects of each construct rather than interchangeable manifestations of a common underlying factor. Accordingly, FL, MP, WCF, and CFA were estimated as com-

posite constructs using Mode A weighting within the PLS-SEM framework.

The analysis was conducted in two stages. First, the measurement model was evaluated by assessing indicator reliability, internal consistency reliability, convergent validity, and discriminant validity. Second, the structural model was evaluated using variance inflation factors (VIF) to assess collinearity, path coefficients and coefficients of determination ( $R^2$ ) to evaluate the structural relationships and explanatory power, and effect sizes ( $f^2$ ) to assess the contribution of individual predictors. Predictive performance was assessed using  $Q^2$  predict, derived from out-of-sample predictions, and further evaluated with PLS-predict by comparing the prediction errors of the PLS-SEM model with those of a linear-model benchmark. Bootstrapping with 5,000 resamples was subsequently performed to assess the statistical significance of the direct and indirect relationships and their 95% confidence intervals.

## RESULT AND DISCUSSION

### Characteristics of the Surveyed MSMEs

The sample consisted of 384 MSMEs operating on Tidore Island, Indonesia.

Most businesses had been operating for 4–6 years (34.9%), followed by businesses operating for more than 6 years (29.7%) and 1–3 years (25.0%). Only 10.4% of the businesses had operated for less than one year. In terms of business size, 94.8% of the surveyed MSMEs employed between 1 and 5 workers, while 4.7% employed 6–10 workers and only 0.5% employed more than 10 workers. The surveyed MSMEs represented a variety of business activities, including retail trade, food and beverage businesses, personal services, and other small-scale enterprises

### Descriptive Statistics

Table 2 presents the descriptive statistics of the measurement items used to assess financial literacy (FL), management practices (MP), working capital flexibility (WCF), and cash flow agility (CFA). The statistics include the mean, standard deviation, median, minimum, maximum, skewness, and kurtosis for the 384 valid observations. These descriptive statistics provide an initial overview of the distribution and response patterns of the observed variables before assessing the measurement and structural models.

**Table 2.** Descriptive Statistics of Research Indicators

| Item | Mean | SD   | Median | Min | Max | Skewness | Kurtosis |
|------|------|------|--------|-----|-----|----------|----------|
| FL1  | 3.75 | 1.09 | 4.0    | 1   | 5   | -0.68    | -0.06    |
| FL2  | 4.00 | 0.89 | 4.0    | 1   | 5   | -1.42    | 2.94     |
| FL3  | 3.74 | 0.93 | 4.0    | 1   | 5   | -0.61    | 0.57     |
| FL4  | 3.96 | 0.86 | 4.0    | 1   | 5   | -1.11    | 2.09     |
| FL5  | 3.97 | 0.87 | 4.0    | 1   | 5   | -1.08    | 1.87     |
| MP1  | 3.67 | 0.86 | 4.0    | 1   | 5   | -0.37    | 0.31     |
| MP2  | 3.73 | 0.94 | 4.0    | 1   | 5   | -0.48    | -0.08    |
| MP4  | 3.89 | 0.85 | 4.0    | 1   | 5   | -0.72    | 0.95     |
| WCF1 | 3.90 | 0.80 | 4.0    | 1   | 5   | -0.88    | 1.43     |
| WCF2 | 3.67 | 0.88 | 4.0    | 1   | 5   | -0.44    | 0.17     |
| WCF3 | 3.45 | 0.84 | 3.0    | 1   | 5   | -0.22    | 0.44     |
| WCF4 | 3.71 | 0.81 | 4.0    | 1   | 5   | -0.76    | 1.16     |
| WCF5 | 3.74 | 0.88 | 4.0    | 1   | 5   | -0.37    | 0.02     |
| CFA1 | 3.51 | 1.07 | 4.0    | 1   | 5   | -0.23    | -0.92    |

| Item | Mean | SD   | Median | Min | Max | Skewness | Kurtosis |
|------|------|------|--------|-----|-----|----------|----------|
| CFA2 | 3.46 | 0.88 | 3.5    | 1   | 5   | -0.23    | -0.24    |
| CFA3 | 3.57 | 0.82 | 4.0    | 1   | 5   | -0.48    | 0.57     |
| CFA4 | 3.32 | 0.88 | 3.0    | 1   | 5   | 0.04     | -0.06    |
| CFA5 | 3.29 | 0.87 | 3.0    | 1   | 5   | 0.05     | 0.20     |

Note: N = 384. All indicators were measured using a five-point Likert scale ranging from 1 to 5

Source: Processed Data (2026)

As shown in Table 2, the mean values range from 3.29 to 4.00 on the five-point Likert scale, indicating generally favorable responses across the four constructs. Financial literacy shows relatively high mean values, ranging from 3.74 to 4.00, while management practices range from 3.67 to 3.89. Working capital flexibility has mean values between 3.45 and 3.90, whereas cash flow agility records comparatively lower mean values, ranging from 3.29 to 3.57. The standard deviations range from 0.80 to 1.09, indicating moderate variation in respondents' assessments. Overall, the descriptive statistics provide an initial overview of the response patterns before proceeding to the measurement model assessment.

### Measurement Model Assessment

The measurement model was assessed in terms of indicator reliability, internal consistency reliability, convergent validity, and discriminant validity. Indicator reliability was assessed using outer loadings, internal consistency using Cronbach's alpha and composite reliability (CR), and convergent validity using AVE. Discriminant validity was assessed using HTMT and its 95% bootstrap confidence intervals (Henseler et al., 2015; Hair et al., 2021). Following Hair et al. (2021), outer loadings of approximately 0.70 or higher, CR above 0.70, and AVE above 0.50 indicate acceptable measurement quality. The results are presented in Table 3.

**Table 3.** Measurement Model Assessment and Discriminant Validity

| Variable                    | Indicator | Outer Loading | Cronbach's Alpha | Composite Reliability | AVE   | Conclusion         |
|-----------------------------|-----------|---------------|------------------|-----------------------|-------|--------------------|
| Financial Literacy          | FL1       | 0.804         | 0.885            | 0.916                 | 0.686 | Valid and Reliable |
|                             | FL2       | 0.869         |                  |                       |       |                    |
|                             | FL3       | 0.824         |                  |                       |       |                    |
|                             | FL4       | 0.841         |                  |                       |       |                    |
|                             | FL5       | 0.802         |                  |                       |       |                    |
| Management Practices        | MP1       | 0.758         | 0.679            | 0.824                 | 0.610 | Valid and Reliable |
|                             | MP2       | 0.839         |                  |                       |       |                    |
|                             | MP4       | 0.742         |                  |                       |       |                    |
| Working Capital Flexibility | WCF1      | 0.738         | 0.802            | 0.863                 | 0.558 | Valid and Reliable |
|                             | WCF2      | 0.750         |                  |                       |       |                    |
|                             | WCF3      | 0.714         |                  |                       |       |                    |
|                             | WCF4      | 0.790         |                  |                       |       |                    |
|                             | WCF5      | 0.741         |                  |                       |       |                    |

| Variable          | Indicator | Outer Loading                 | Cronbach's Alpha | Composite Reliability | AVE        | Conclusion         |
|-------------------|-----------|-------------------------------|------------------|-----------------------|------------|--------------------|
| Cash Flow Agility | CFA1      | 0.684                         | 0.764            | 0.841                 | 0.514      | Valid and Reliable |
|                   | CFA2      | 0.672                         |                  |                       |            |                    |
|                   | CFA3      | 0.705                         |                  |                       |            |                    |
|                   | CFA4      | 0.767                         |                  |                       |            |                    |
|                   | CFA5      | 0.751                         |                  |                       |            |                    |
|                   |           |                               |                  |                       |            |                    |
| Construct Pair    | HTMT      | 95% Bootstrap CI (2.5%–97.5%) |                  |                       | Conclusion |                    |
| FL–MP             | 0.675     | 0.511–0.798                   |                  |                       | Valid      |                    |
| FL–WCF            | 0.647     | 0.494–0.758                   |                  |                       | Valid      |                    |
| FL–CFA            | 0.489     | 0.361–0.605                   |                  |                       | Valid      |                    |
| MP–WCF            | 0.808     | 0.701–0.900                   |                  |                       | Valid      |                    |
| MP–CFA            | 0.650     | 0.544–0.756                   |                  |                       | Valid      |                    |
| WCF–CFA           | 0.743     | 0.651–0.825                   |                  |                       | Valid      |                    |

Source: Processed Data (2026)

The results indicate adequate indicator reliability across the retained indicators. Most outer loadings meet or exceed the commonly recommended threshold of 0.70. CFA1 and CFA2 have slightly lower loadings, at 0.684 and 0.672, respectively; however, both indicators were retained because the overall measurement quality of the CFA construct remained acceptable in terms of composite reliability and AVE. During model refinement, FL6 and MP3 were removed because their outer loadings were substantially below the recommended level. The final measurement model therefore consists of indicators that provide adequate representation of their respective constructs.

The results also indicate acceptable internal consistency reliability and convergent validity across the four constructs. Composite reliability values exceed 0.70 and AVE values exceed 0.50 for all constructs. Cronbach's alpha for MP is slightly below 0.70, whereas the other constructs exceed the conventional threshold. Given the acceptable composite reliability and AVE values, the measurement model is considered to demonstrate adequate reliability and convergent validity

for subsequent structural model assessment.

Discriminant validity was also supported. As shown in Table 3, all HTMT values are below the recommended threshold of 0.85 (Henseler et al., 2015; Hair et al., 2021), with the highest value observed between Management Practices and Working Capital Flexibility (HTMT = 0.808). Although these constructs are conceptually related, the HTMT values remain below the recommended threshold, indicating adequate empirical distinctiveness. In addition, the 95% bootstrap confidence intervals for all HTMT estimates do not include 1.00, providing further support for discriminant validity. Overall, the measurement model demonstrates adequate indicator reliability, internal consistency reliability, convergent validity, and discriminant validity.

### Structural Model Assessment

The structural model was assessed using variance inflation factors (VIF), the coefficient of determination ( $R^2$ ), effect sizes ( $f^2$ ), and predictive relevance ( $Q^2_{predict}$ ), following Hair et al. (2021). The results are presented in Table 4.

As shown in Table 4, all VIF values are below 5.00, indicating no collinearity concerns (Hair et al., 2021). The model explains 43.5% of the variance in WCF and 37.1% in CFA. MP has a medium effect on WCF, while FL has a small effect; for CFA, FL, MP, and WCF show negligible, small, and small effects, respectively. Although WCF has the largest standardi-

zed path coefficient for CFA, its effect size remains small. The positive  $Q^2_{\text{predict}}$  values for WCF (0.247) and CFA (0.181) further indicate predictive relevance.

The structural model is further illustrated in Figure 2, which presents the standardized path coefficients and coefficients of determination ( $R^2$ ) for the endogenous constructs.

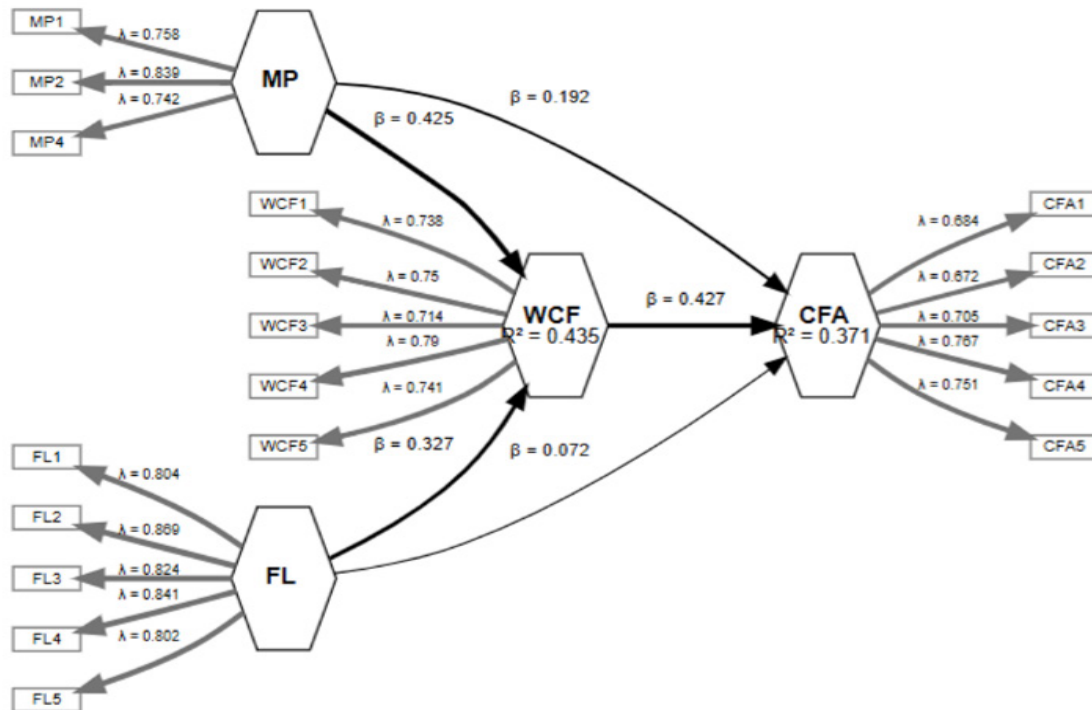
**Table 4.** Structural Model Assessment

| Assessment                                       | Variable  | Value | Threshold          | Interpretation          |
|--------------------------------------------------|-----------|-------|--------------------|-------------------------|
| Collinearity (VIF)                               | FL → WCF  | 1.386 | < 5.00             | No collinearity concern |
|                                                  | MP → WCF  | 1.386 | < 5.00             | No collinearity concern |
|                                                  | FL → CFA  | 1.576 | < 5.00             | No collinearity concern |
|                                                  | MP → CFA  | 1.707 | < 5.00             | No collinearity concern |
|                                                  | WCF → CFA | 1.770 | < 5.00             | No collinearity concern |
| Explanatory Power ( $R^2$ )                      | WCF       | 0.435 | 0.25–0.50          | Moderate                |
|                                                  | CFA       | 0.371 | 0.25–0.50          | Moderate                |
| Effect Size ( $f^2$ )                            | FL → WCF  | 0.137 | 0.02 / 0.15 / 0.35 | Small                   |
|                                                  | MP → WCF  | 0.227 | 0.02 / 0.15 / 0.35 | Medium                  |
|                                                  | FL → CFA  | 0.005 | 0.02 / 0.15 / 0.35 | Negligible              |
|                                                  | MP → CFA  | 0.034 | 0.02 / 0.15 / 0.35 | Small                   |
|                                                  | WCF → CFA | 0.145 | 0.02 / 0.15 / 0.35 | Small                   |
| Predictive Assessment ( $Q^2_{\text{predict}}$ ) | WCF       | 0.247 | > 0                | Predictive relevance    |
|                                                  | CFA       | 0.181 | > 0                | Predictive relevance    |

Source: Processed Data (2026)

Figure 2 illustrates the final PLS-SEM model, showing the standardized outer loadings of the retained indicators, standardized path coefficients among the latent constructs, and the coefficients of determination ( $R^2$ ) for the endogenous constructs. The model shows that management practices have the largest standardized path coefficient for working capital

flexibility ( $\beta=0.425$ ), while working capital flexibility has the largest standardized direct path coefficient for cash flow agility ( $\beta=0.427$ ). The  $R^2$  values of 0.435 for working capital flexibility and 0.371 for cash flow agility indicate that the model explains 43.5% and 37.1% of the variance in the respective endogenous constructs.



**Figure 2.** Final PLS-SEM Model

Source: Processed Data (2026)

### Common Method Bias Assessment

As an additional bias check, a full-collinearity assessment was conducted using the composite scores of the four constructs. The results are presented in Table 5.

All full-collinearity VIF values were below the conservative threshold of 3.3, ranging from 1.584 to 2.059. These results indicate that the model does not exhibit substantial evidence of common method bias.

**Table 5.** Full-Collinearity VIF Assessment

| Construct                         | Full-Collinearity VIF | Threshold | Interpretation             |
|-----------------------------------|-----------------------|-----------|----------------------------|
| Financial Literacy (FL)           | 1.584                 | < 3.30    | No substantial CMB concern |
| Management Practices (MP)         | 1.765                 | < 3.30    | No substantial CMB concern |
| Working Capital Flexibility (WCF) | 2.059                 | < 3.30    | No substantial CMB concern |
| Cash Flow Agility (CFA)           | 1.589                 | < 3.30    | No substantial CMB concern |

Source: Processed Data (2026)

### Predictive Assessment

Predictive assessment was conducted to evaluate the model's out-of-sample predictive performance. In addition to explanatory power, prediction-oriented assessment is important because conven-

tional measures such as  $R^2$  do not directly indicate how accurately a model predicts observations outside the estimation sample (Hair et al., 2021). Accordingly, out-of-sample prediction was assessed using the PLSpredict procedure in SmartPLS 4. The

analysis employed 10-fold cross-validation with 10 repetitions. Predictive performance was evaluated by comparing the prediction errors of the PLS-SEM model with those of a linear model (LM) benchmark

using root mean squared error (RMSE) and mean absolute error (MAE). Lower prediction errors indicate better predictive performance. The results are presented in Table 6.

**Table 6.** PLSpredict Results for WCF and CFA Indicators

| Indicator | PLS RMSE | LM RMSE | PLS MAE | LM MAE |
|-----------|----------|---------|---------|--------|
| WCF1      | 0.668    | 0.669   | 0.506   | 0.508  |
| WCF2      | 0.804    | 0.805   | 0.636   | 0.642  |
| WCF3      | 0.776    | 0.773   | 0.632   | 0.617  |
| WCF4      | 0.683    | 0.688   | 0.533   | 0.528  |
| WCF5      | 0.756    | 0.763   | 0.626   | 0.631  |
| CFA1      | 1.007    | 0.927   | 0.831   | 0.742  |
| CFA2      | 0.814    | 0.794   | 0.656   | 0.614  |
| CFA3      | 0.736    | 0.720   | 0.611   | 0.571  |
| CFA4      | 0.784    | 0.802   | 0.623   | 0.623  |
| CFA5      | 0.768    | 0.773   | 0.594   | 0.586  |

Source: Processed Data (2026)

The PLSpredict results indicate mixed out-of-sample predictive performance across the endogenous constructs. For WCF, the PLS-SEM model produced lower RMSE values than the linear model (LM) for four of the five indicators and lower MAE values for three indicators. In contrast, for CFA, the LM generally produced lower prediction errors, with the PLS-SEM model outperforming the LM on only one indicator for RMSE, while MAE was lower for the LM on four indicators and identical for one indicator. Overall, the results indicate relatively better predictive performance for WCF, whereas the PLS-SEM model does not demonstrate consistent predictive superiority over the LM benchmark for CFA. Thus, the model exhibits mixed out-of-sample predictive performance across the endogenous constructs.

### Hypothesis Testing

The proposed hypotheses were examined using bootstrapping with 5,000 resamples. The significance of each structural relationship was assessed based on the standardized path coefficient ( $\beta$ ), t-value, p-value, and 95% percentile bootstrap confidence interval. A hypothesized relation-

ship was considered statistically supported when the p-value was below 0.05 and the corresponding confidence interval did not include zero (Hair et al., 2021). For the indirect effects, bootstrapping was used to assess the statistical significance of the indirect associations through working capital flexibility. The results are presented in Table 7.

As shown in Table 7, six of the seven proposed relationships are statistically supported, whereas the direct relationship proposed in H1 is not supported. Financial literacy is not significantly associated with cash flow agility (H1:  $\beta = 0.072$ ,  $p = 0.290$ ; 95% CI [-0.062, 0.192]), whereas management practices are positively associated with cash flow agility (H2:  $\beta = 0.192$ ,  $p = 0.002$ ; 95% CI [0.072, 0.312]). Financial literacy is positively associated with working capital flexibility (H3:  $\beta = 0.327$ ,  $p < 0.001$ ; 95% CI [0.203, 0.443]), and management practices are also positively associated with working capital flexibility (H4:  $\beta = 0.425$ ,  $p < 0.001$ ; 95% CI [0.314, 0.534]). Working capital flexibility is positively associated with cash flow agility (H5:  $\beta = 0.427$ ,  $p < 0.001$ ; 95% CI [0.316, 0.549]).

Table 7. Results of Hypothesis Testing

| Hypothesis | Relationship                           | $\beta$ | t-value | p-value | 95% CI       | Decision      |
|------------|----------------------------------------|---------|---------|---------|--------------|---------------|
| H1         | FL $\rightarrow$ CFA                   | 0.072   | 1.104   | 0.290   | -0.062–0.192 | Not Supported |
| H2         | MP $\rightarrow$ CFA                   | 0.192   | 3.162   | 0.002   | 0.072–0.312  | Supported     |
| H3         | FL $\rightarrow$ WCF                   | 0.327   | 5.444   | <0.001  | 0.203–0.443  | Supported     |
| H4         | MP $\rightarrow$ WCF                   | 0.425   | 7.658   | <0.001  | 0.314–0.534  | Supported     |
| H5         | WCF $\rightarrow$ CFA                  | 0.427   | 7.303   | <0.001  | 0.316–0.549  | Supported     |
| H6         | FL $\rightarrow$ WCF $\rightarrow$ CFA | 0.142   | 4.190   | <0.001  | 0.078–0.211  | Supported     |
| H7         | MP $\rightarrow$ WCF $\rightarrow$ CFA | 0.183   | 5.183   | <0.001  | 0.119–0.257  | Supported     |

Source: Processed Data (2026)

The indirect-effect results further show statistically significant indirect associations between financial literacy and cash flow agility through working capital flexibility (h6:  $\beta=0.142$ ,  $p<0.001$ ; 95% ci [0.078, 0.211]) and between management practices and cash flow agility through working capital flexibility (H7:  $\beta=0.183$ ,  $p<0.001$ ; 95% CI [0.119, 0.257]). The total-effect analysis further indicates that financial literacy has a significant overall association with cash flow agility ( $\beta=0.212$ ,  $p=0.002$ ; 95% ci [0.087, 0.322]), while management practices also show a significant overall association with cash flow agility ( $\beta=0.374$ ,  $p<.001$ ; 95% CI [0.265, 0.480]). These total effects reflect the combined direct and indirect statistical associations in the model. Given the cross-sectional design, the significant indirect associations should not be interpreted as establishing causal mediation. The theoretical interpretation of these findings is discussed in the following section.

### Financial Literacy and Cash Flow Agility

The results indicate that financial literacy is not significantly associated with cash flow agility ( $\beta=0.072$ ,  $t=1.104$ ,  $p=0.290$ ); therefore, H1 is not supported. Although the estimated path coefficient is positive, its magnitude is small and statistically insignificant, suggesting that higher levels of financial literacy among the surveyed MSMEs are not necessarily associated with a greater capability to anticipate, adapt to, and respond to cash

flow fluctuations. This finding differs from the expectation that financial knowledge would be directly associated with stronger adaptive financial capabilities and therefore requires further theoretical explanation.

From the perspective of Dynamic Capability Theory, financial literacy can be viewed primarily as a foundational knowledge resource that supports financial decision-making, rather than as an adaptive capability. Dynamic capabilities involve the ability to sense changes, seize opportunities, and reconfigure resources in response to environmental conditions (Teece, 2007; 2025). Financial knowledge may help entrepreneurs understand financial information and identify potential liquidity problems, but cash flow agility requires the translation of such knowledge into concrete managerial actions, including financial planning, cash monitoring, resource allocation, and timely adjustment of financial resources. Thus, possessing financial knowledge does not necessarily mean that MSMEs have developed the organizational processes required to respond adaptively to changing cash flow conditions.

This interpretation is consistent with the broader argument that knowledge creates organizational value when it is converted into capabilities and managerial practices that can be deployed under changing environmental conditions (Ma et al., 2019; Sarta et al., 2021). It is also consistent with Kumari et al. (2024), who found that the contribution of financial literacy to business performance is asso-

ciated with stronger managerial capability and innovation. Similarly, Agyapong and Attram (2019) showed that financial literacy supports SME performance through improved owner-managers' financial decision-making capabilities. Listiani and Alliyah (2026), further demonstrated that the contribution of financial literacy to MSME sustainability becomes stronger when complemented by digital transformation and fintech utilization. Collectively, these findings suggest that financial knowledge may generate greater organizational value when supported by complementary managerial, organizational, or technological capabilities.

A further explanation for the non-significant direct relationship may relate to the operational characteristics of MSMEs. Cash flow agility requires more than an understanding of financial concepts; it requires the consistent application of financial knowledge through cash-flow forecasting, continuous cash monitoring, financial planning, timely managerial decisions, and adjustment of financial resources to changing business conditions. Financially literate entrepreneurs may understand the importance of liquidity management but may not always have the managerial routines, organizational processes, or supporting resources needed to implement appropriate responses. Therefore, Financial literacy should be understood as a foundational financial resource whose contribution to adaptive cash flow responses depends on its translation into practical managerial capabilities.

From a practical perspective, the findings suggest that financial literacy programs for MSMEs should not be treated as an end in themselves. Financial education should be complemented by practical capabilities such as cash-flow forecasting, cash monitoring, financial planning, and timely adjustment of financial resources. This implication is consistent with the Dynamic Capability Theory perspective, in which knowledge becomes valuable when

it can be translated into capabilities that enable firms to respond to changing environmental conditions (Teece, 2007; 2025). Overall, the findings suggest that financial literacy is not a stand-alone determinant of cash flow agility but rather a foundational resource whose value depends on its integration with practical managerial and financial capabilities.

### **Management Practices and Cash Flow Agility**

The results indicate that management practices are positively associated with cash flow agility ( $\beta=0.192$ ,  $t=3.162$ ,  $p=0.002$ ); therefore, H2 is supported. The positive and statistically significant relationship suggests that MSMEs with stronger management practices tend to demonstrate greater capability to anticipate, adapt to, and respond to cash flow fluctuations. Effective management practices provide structured routines for planning, coordinating business activities, monitoring financial conditions, and allocating resources, which may help MSMEs respond more systematically to changing financial conditions.

From the perspective of Dynamic Capability Theory, management practices represent organizational processes through which firms can sense changes, seize opportunities, and reconfigure resources in response to environmental uncertainty (Teece, 2007; 2025). Management practices such as planning, monitoring, coordination, and resource allocation provide routines through which managerial knowledge can be translated into organizational action. In the context of MSMEs, these routines may facilitate timely identification of liquidity pressures and support adjustments in financial and operational resources. The finding is therefore consistent with the view that adaptive capabilities are developed through organizational processes that enable firms to respond to changing environmental conditions (Ma et al., 2019; Sarta et al., 2021).

The finding is also consistent with previous research emphasizing the importance of systematic financial and working capital management for SME performance and financial stability. Afrifa and Tingbani (2018) demonstrated that effective working capital management is associated with improved cash flow efficiency and SME performance, while Anton and Afloarei Nucu (2021) found that systematic working capital management is associated with better organizational performance through more effective control of short-term financial resources. Although these studies do not directly examine cash flow agility, their findings provide supporting evidence that disciplined management of financial and operational resources is relevant to firms' ability to manage cash flow effectively. In the present study, this relationship is extended to the adaptive dimension of cash flow management.

A possible explanation for the significant association is that effective management practices establish regular managerial routines that facilitate continuous monitoring and timely responses to financial changes. MSMEs with more systematic planning, budgeting, financial monitoring, and operational coordination may be better positioned to identify potential liquidity pressures and adjust business activities before financial constraints become more severe. This interpretation is consistent with Dzingirai and Ndava (2022), who identified inadequate cash flow management as an important challenge for small businesses. Hortovanyi et al. (2024) further emphasized the importance of adaptive management strategies for strengthening SMEs' resilience under environmental uncertainty. Thus, management practices may provide an important organizational foundation for adaptive financial responses.

For MSME owners and managers, the findings highlight the importance of strengthening managerial routines that support adaptive cash flow responses. Such

routines may include regular cash-flow forecasting, systematic budgeting, monitoring of receivables and payables, inventory planning, and periodic evaluation of financial conditions. These practices can provide a more structured basis for identifying potential liquidity pressures and responding to changing cash flow conditions. Overall, the findings indicate that management practices constitute an important organizational capability associated with cash flow agility and complement the role of financial knowledge in supporting MSMEs' adaptive financial responses.

### **Financial Literacy and Working Capital Flexibility**

The results indicate that financial literacy is positively associated with working capital flexibility ( $\beta=0.327$ ,  $t=5.444$ ,  $p<0.001$ ); therefore, H3 is supported. The positive and statistically significant relationship suggests that MSMEs with higher levels of financial literacy tend to demonstrate greater capability to adjust and reallocate short-term financial resources. Financial knowledge may help entrepreneurs evaluate liquidity requirements, allocate financial resources, and make informed decisions concerning cash, receivables, inventories, and short-term liabilities. This finding indicates that financial literacy is more directly connected with the flexible management of short-term financial resources than with Cash Flow Agility itself.

From the perspective of Dynamic Capability Theory, financial literacy can be regarded as a knowledge-based resource that supports the development of adaptive financial practices. Dynamic capabilities require firms to recognize changes, make appropriate decisions, and reconfigure resources in response to changing conditions (Teece, 2007; 2025). In the context of MSMEs, financial knowledge provides a basis for evaluating liquidity needs and determining how available working capital should be allocated or adjusted. Thus,

the significant association between financial literacy and working capital flexibility suggests that financial knowledge is more readily translated into flexible short-term financial management when entrepreneurs can apply that knowledge to operational financial decisions (Ma et al., 2019; Sarta et al., 2021).

The finding is consistent with previous research emphasizing the role of financial knowledge and financial management practices in supporting effective resource utilization. Kumari et al. (2024) found that financially literate microentrepreneurs demonstrate better financial decision-making and managerial effectiveness. Similarly, Afrifa and Tingbani (2018) showed that effective working capital management is associated with greater cash flow efficiency and more productive use of financial resources. Anton and Afloarei Nucu (2021) likewise found that systematic working capital management is associated with financial stability through more effective control of short-term assets and liabilities. Although these studies do not directly examine working capital flexibility as conceptualized in the present study, they provide supporting evidence that informed financial decisions and disciplined management of short-term resources are relevant to flexible financial management. Wu et al. (2024) further showed that financial flexibility is associated with firms' ability to allocate financial resources efficiently and respond to changing investment and financing conditions. Although their study focuses on larger firms, the underlying principle provides a useful reference for understanding resource flexibility in the MSME context.

A possible explanation for the significant association is that financial literacy enables MSME owners to better balance liquidity requirements with operational needs. Entrepreneurs who understand financial information may be better positioned to monitor cash availability, evaluate receivables and inventory requirements,

assess short-term financing alternatives, and adjust financial resources when business conditions change. Such decision-making may provide the foundation for more flexible working capital arrangements. In this sense, financial literacy does not merely involve understanding financial concepts but also provides a basis for applying financial information to short-term resource allocation and adjustment.

The finding also provides an important contrast with H1, where financial literacy was not significantly associated with cash flow agility directly. The different patterns suggest that financial literacy may be more closely connected with an internal financial capability involving the adjustment and reallocation of short-term resources than with the broader adaptive capability represented by cash flow agility. For MSME owners and managers, this finding highlights the importance of translating financial knowledge into practical working capital routines, including cash management, receivables and inventory control, short-term financing decisions, liquidity monitoring, and working capital planning. Overall, the findings indicate that financial literacy is positively associated with working capital flexibility and may serve as an important foundation for flexible short-term financial resource management among MSMEs.

### **Management Practices and Working Capital Flexibility**

The results indicate that management practices are positively associated with working capital flexibility ( $\beta=0.425$ ,  $t=7.658$ ,  $p<0.001$ ); therefore, H4 is supported. The positive and statistically significant relationship suggests that MSMEs with stronger management practices tend to demonstrate greater capability to adjust and reallocate short-term financial resources in response to changing operational and financial conditions. Systematic planning, budgeting, financial monitoring, inventory control, and receivables mana-

gement may provide managerial routines that help MSMEs coordinate short-term resources while maintaining adequate liquidity and operational continuity.

From the perspective of Dynamic Capability Theory, management practices represent organizational processes through which managerial resources can be coordinated and reconfigured in response to environmental changes (Teece, 2007; 2025). Effective planning, monitoring, coordination, and resource allocation provide routines that enable MSMEs to identify changing financial requirements and adjust working capital accordingly. The significant association between management practices and working capital flexibility therefore suggests that managerial routines are closely connected with the firm's ability to reconfigure short-term financial resources. This interpretation is consistent with the view that adaptive organizational capabilities develop through processes that enable firms to respond to changing environmental conditions (Ma et al., 2019; Sarta et al., 2021).

The finding is consistent with previous empirical studies emphasizing the importance of systematic management of working capital and short-term financial resources. Afrifa and Tingbani (2018) found that effective working capital management is associated with greater cash flow efficiency and more productive use of financial resources among SMEs. Similarly, Anton and Afloarei Nucu (2021) reported that disciplined working capital management is associated with financial stability through more effective control of cash, inventories, receivables, and short-term liabilities. Braimah et al. (2021) also demonstrated that sound working capital management practices are associated with stronger operational performance among SMEs because firms are better positioned to respond to financial constraints and maintain adequate liquidity. Although these studies do not directly examine working capital flexibility as conceptualized

in the present study, they provide supporting evidence that systematic managerial practices are relevant to the flexible management of short-term financial resources.

A possible explanation for the strong relationship is that management practices establish structured routines for anticipating liquidity requirements and adjusting working capital decisions. Rather than responding to financial problems only after they arise, MSMEs with more systematic managerial practices may continuously evaluate operational requirements, monitor financial conditions, and coordinate available resources. Such routines can provide a basis for adjusting cash, receivables, inventories, and short-term liabilities as business conditions change. This interpretation is consistent with Hortovanyi et al. (2024), who emphasized the importance of adaptive management practices for strengthening SME resilience through continuous managerial development and responsiveness to environmental uncertainty.

For MSME owners and managers, the findings highlight the importance of strengthening practical managerial routines related to working capital. Regular budgeting, cash-flow monitoring, receivables and inventory control, and periodic assessment of short-term financial requirements can provide a structured basis for adjusting financial resources to changing business conditions. Overall, the findings indicate that Management Practices are positively associated with Working Capital Flexibility and represent an important organizational capability for supporting flexible short-term financial resource management among MSMEs

### **Working Capital Flexibility and Cash Flow Agility**

The results indicate that working capital flexibility is positively associated with cash flow agility ( $\beta=0.427$ ,  $t=7.303$ ,  $p<0.001$ ); therefore, H5 is supported. The positive and statistically significant relationship suggests that MSMEs with grea-

ter flexibility in managing working capital tend to demonstrate greater capability to adapt their cash inflows and outflows to changing business conditions. Flexible management of short-term assets and liabilities may enable firms to maintain liquidity, meet operational obligations, and respond more promptly to unexpected financial requirements. Thus, working capital flexibility appears to be closely connected with the adaptive financial capability represented by cash flow agility.

From the perspective of Dynamic Capability Theory, working capital flexibility represents a financial capability through which MSMEs can reconfigure and reallocate short-term resources in response to changing conditions (Teece, 2007; 2025). Rather than relying on rigid working capital policies, firms with greater flexibility can adjust cash, receivables, inventories, and short-term liabilities according to changing operational priorities. This capacity to continuously reconfigure financial resources is consistent with the dynamic capability perspective, in which organizational adaptability depends on the ability to adjust internal resources as environmental conditions evolve (Ma et al., 2019; Sarta et al., 2021). The significant association found in this study therefore suggests that flexibility in short-term financial resource management is closely related to MSMEs' ability to maintain adaptive cash flow responses.

The finding is consistent with previous studies emphasizing the importance of working capital management for liquidity and financial responsiveness. Afrifa and Tingbani (2018) demonstrated that effective working capital management is associated with greater cash flow efficiency and enables SMEs to operate more effectively under financial constraints. Similarly, Anton and Afloarei Nucu (2021) found that efficient management of current assets and current liabilities is associated with greater financial stability and operational performance. These findings provide sup-

porting evidence for the present result, although the current study specifically conceptualizes flexibility as a capability to adjust and reallocate working capital in response to changing conditions.

A possible explanation is that working capital flexibility provides MSMEs with greater financial discretion to accommodate temporary liquidity pressures without immediately disrupting business operations. Entrepreneurs who can adjust inventory levels, accelerate receivable collection, manage payables, and reallocate available cash may be better positioned to maintain relatively stable cash flows when demand or financing conditions fluctuate. This interpretation is consistent with Wu et al. (2024), who found that financial flexibility is associated with firms' ability to allocate financial resources efficiently and respond to changing investment and financing conditions. Similarly, Braimah et al. (2021) emphasized that effective working capital management is associated with SMEs' ability to respond to operational and financial challenges through adequate liquidity and efficient use of short-term resources.

The finding should be interpreted with caution. Although working capital flexibility exhibits the largest standardized direct coefficient among the predictors of cash flow agility, its effect size remains small ( $f^2=0.146$ ), indicating a modest substantive contribution. This suggests that flexibility in managing short-term financial resources is associated with adaptive cash flow responses among the surveyed MSMEs, but it should not be viewed as the sole determinant of cash flow agility. Other factors not included in the model, such as market conditions, access to external finance, entrepreneurial experience, digital capability, and business networks, may also influence firms' ability to respond to changing cash flow conditions. Therefore, the present findings should be interpreted in the context of the sampled MSMEs on Tidore Island and cautiously

generalized to other MSME settings.

### **The Mediating Role of Working Capital Flexibility in the Relationship between Financial Literacy and Cash Flow Agility**

The mediation analysis indicates that working capital flexibility significantly mediates the relationship between financial literacy and cash flow agility ( $\beta=0.142$ ,  $t=4.190$ ,  $p<0.001$ ); therefore, H6 is supported. Combined with the insignificant direct association between financial literacy and cash flow agility ( $\beta=0.072$ ,  $p=0.290$ ), the finding indicates that financial literacy is statistically associated with cash flow agility indirectly through working capital flexibility. This result suggests that financial knowledge alone may not be sufficient to support adaptive cash flow management unless it is translated into flexible management of short-term financial resources.

From the perspective of Dynamic Capability Theory, the mediation pattern suggests that financial knowledge can provide an important foundation for adaptive financial management, while working capital flexibility represents a more operational capability through which such knowledge can be applied to changing financial conditions (Teece, 2007; Ma et al., 2019; Sarta et al., 2021; Teece, 2025). Financially literate entrepreneurs may be better positioned to evaluate liquidity requirements, allocate short-term financial resources, and adjust working capital decisions. The resulting flexibility in managing cash, receivables, inventories, and short-term liabilities may then be associated with a greater ability to respond to changing cash flow conditions. Thus, the findings are consistent with the dynamic capability perspective, which holds that adaptive outcomes depend not only on the availability of knowledge but also on the organization's ability to apply and reconfigure resources.

The finding is also consistent with

previous studies emphasizing the importance of financial knowledge and working capital management for financial adaptability. Kumari et al. (2024) found that financially literate microentrepreneurs demonstrate better financial decision-making and managerial effectiveness. Afrifa and Tingbani (2018) showed that effective working capital management is associated with greater cash flow efficiency and more productive use of short-term financial resources. Similarly, Anton and Afloarei Nucu (2021) reported that systematic working capital management is associated with financial stability through more effective management of current assets and liabilities. Although these studies do not directly test the mediating role of working capital flexibility between financial literacy and cash flow agility, their findings provide supporting evidence for the two components of the indirect relationship identified in the present study.

An important implication of the mediation finding is that financial knowledge does not necessarily translate directly into adaptive cash flow responses. Entrepreneurs may understand budgeting, liquidity management, and financial planning, but the practical value of such knowledge depends in part on their ability to apply it through the flexible management of short-term financial resources. The significant indirect association, therefore, suggests that working capital flexibility may function as an important mechanism linking financial knowledge with adaptive cash flow capability. This interpretation also helps explain the contrasting findings for H1 and H6: Financial literacy is not directly associated with cash flow agility, but its indirect association through working capital flexibility is significant.

For MSME owners and managers, the findings highlight the importance of combining financial education with practical working capital capabilities. Training programs should not focus solely on financial concepts; they may also incorporate

cash flow planning, liquidity monitoring, receivables and inventory management, short-term financing decisions, and resource reallocation. Such an integrated approach can help entrepreneurs translate financial knowledge into practical financial flexibility. Overall, the findings indicate that working capital flexibility represents an important statistical pathway linking financial literacy with cash flow agility among the surveyed MSMEs.

### **The Mediating Role of Working Capital Flexibility in the Relationship between Management Practices and Cash Flow Agility**

The mediation analysis indicates that working capital flexibility significantly mediates the relationship between management practices and cash flow agility ( $\beta=0.183$ ,  $t=5.183$ ,  $p<0.001$ ); therefore, H7 is supported. Because both the direct association between management practices and cash flow agility ( $\beta=0.192$ ,  $p=0.002$ ) and the indirect association through working capital flexibility are positive and significant, the findings indicate complementary partial mediation. This pattern suggests that management practices are associated with cash flow agility both directly and indirectly through greater flexibility in managing short-term financial resources.

From the perspective of Dynamic Capability Theory, management practices provide organizational routines through which financial and operational resources can be coordinated, monitored, and reconfigured in response to changing conditions (Teece, 2007; Ma et al., 2019; Sarta et al., 2021; Teece, 2025). Systematic planning, budgeting, financial monitoring, inventory control, and receivables management can provide the managerial foundation for adjusting current assets and liabilities according to operational requirements. Working capital flexibility then represents a more specific financial capability through which these managerial routines

can be translated into adaptive responses to changing cash flow conditions. The significant indirect association, therefore, supports the theoretical argument that organizational capabilities can be connected with adaptive outcomes through resource reconfiguration.

The finding is consistent with previous empirical evidence concerning management practices and working capital management. Afrifa and Tingbani (2018) reported that effective working capital management is associated with greater cash flow efficiency and more productive utilization of short-term financial resources among SMEs. Similarly, Anton and Afloarei Nucu (2021) found that disciplined working capital management is associated with financial stability through more effective management of current assets and current liabilities. Braimah et al. (2021) also demonstrated that sound working capital management practices are associated with stronger operational performance because SMEs are better positioned to maintain liquidity and respond to financial constraints. Although these studies do not directly test the mediating role of working capital flexibility in the relationship between management practices and cash flow agility, they provide supporting evidence for the underlying relationships identified in the present study.

An important implication of the mediation finding is that management practices are associated not only with cash flow agility through direct managerial processes but also with the firm's ability to manage short-term financial resources flexibly. MSMEs with more systematic managerial routines may be better positioned to anticipate liquidity requirements, monitor financial conditions, and reallocate resources when operational needs change. This interpretation is consistent with Hortovanyi et al. (2024), who emphasized that adaptive management practices are associated with stronger organizational resilience through continuous managerial

development and responsiveness to environmental uncertainty. Thus, working capital flexibility appears to provide an important statistical pathway linking managerial routines to adaptive cash flow capability.

For MSME owners and managers, the findings highlight the importance of integrating general management capabilities with practical working capital management. Strengthening planning, budgeting, financial monitoring, inventory control, receivables management, and short-term resource allocation may help MSMEs develop greater flexibility in responding to changing financial conditions. The complementary mediation pattern further suggests that improving management practices alone may not fully capture their relationship with cash flow Agility; the ability to translate managerial routines into flexible working capital decisions is also important. Overall, the findings indicate that working capital flexibility represents an important complementary statistical pathway linking management practices with cash flow agility among the surveyed MSMEs.

## CONCLUSION AND RECOMMENDATION

This study examined the associations between financial literacy and management practices and cash flow agility through statistical pathways involving working capital flexibility among active MSMEs surveyed on Tidore Island, Indonesia. The findings show that financial literacy is not significantly associated with cash flow agility directly but is significantly associated with working capital flexibility, which is in turn significantly associated with cash flow agility. Management practices are positively associated with both working capital flexibility and cash flow agility, while working capital flexibility significantly mediates the relationship between management practices and cash flow

agility. working capital flexibility also has the largest standardized direct coefficient for cash flow agility ( $\beta=0.427$ ), although its effect size remains small ( $f^2=0.146$ ). Overall, the findings indicate that adaptive cash flow capability is more closely associated with the ability to flexibly manage short-term financial resources than with financial knowledge alone.

The findings contribute to the literature by extending the application of Dynamic Capability Theory to the context of MSME financial management. Rather than proposing a new theory, this study refines the understanding of how financial and managerial capabilities may be translated into adaptive financial capability through the flexible reconfiguration of short-term financial resources. In particular, the mediating role of working capital flexibility highlights an important pathway through which financial literacy and management practices are associated with cash flow agility. This perspective extends previous research that has primarily examined financial literacy, management practices, and working capital management in relation to financial performance and business outcomes.

From a practical perspective, the findings suggest that MSME development programs may benefit from integrating financial education with practical working capital management. MSME owners and managers may also benefit from strengthening cash-flow planning, liquidity monitoring, and short-term resource allocation. However, the effectiveness of such interventions was not directly examined in this study. Furthermore, because the findings are based on non-probability sampling and self-reported cross-sectional data from active MSMEs on Tidore Island, they should be interpreted as context-specific statistical associations and generalized cautiously.

Future research should examine the proposed relationships using longitudinal or mixed-methods designs to provide deeper insight into how cash flow agility deve-

lops over time and how financial knowledge and managerial practices translate into adaptive financial capabilities. Future studies could also incorporate additional factors, such as digital financial capabilities, access to finance, financial technology adoption, and environmental uncertainty, and test the model across different regions, industries, and MSME characteristics. Such research would help further develop the adaptive financial capability perspective and assess the generalizability of the present findings.

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## Appendix A. Measurement Items and Response Scale

| Construct                   | Code | Measurement item                                                                               | Response Scale |
|-----------------------------|------|------------------------------------------------------------------------------------------------|----------------|
| Financial Literacy          | FL1  | I understand the difference between cash flow and operating profit.                            | 1-5            |
|                             | FL2  | I am able to prepare a business budget well.                                                   | 1-5            |
|                             | FL3  | I know how to read simple financial statements.                                                | 1-5            |
|                             | FL4  | I am able to estimate the working capital needs of my business.                                | 1-5            |
|                             | FL5  | I understand the financial risks that my business may face.                                    | 1-5            |
|                             | FL6  | I often have trouble distinguishing between short-term and long-term debt. (reverse-coded)     | 1-5            |
| Management Practices        | MP1  | My business has both short and long-term financial planning.                                   | 1-5            |
|                             | MP2  | I conduct periodic financial evaluations.                                                      | 1-5            |
|                             | MP3  | I use simple technology to manage finances (e.g. cash applications).                           | 1-5            |
|                             | MP4  | I am always looking for ways to improve the operational efficiency of my business.             | 1-5            |
| Working Capital Flexibility | WCF1 | My business is able to adjust cash expenditure according to market conditions.                 | 1-5            |
|                             | WCF2 | I easily rearrange the working capital component when business conditions change.              | 1-5            |
|                             | WCF3 | I can transfer funds between business posts quickly.                                           | 1-5            |
|                             | WCF4 | I am able to maintain business liquidity when sales declined.                                  | 1-5            |
|                             | WCF5 | Cash flow flexibility helps my business survive in times of uncertainty.                       | 1-5            |
| Cash Flow Agility           | CFA1 | I can quickly reduce non-essential expenses when there is a sudden drop in income.             | 1-5            |
|                             | CFA2 | My business is able to transfer funds between budget posts smoothly according to urgent needs. | 1-5            |
|                             | CFA3 | I have enough cash reserves to cover my operational needs for 1–2 months in difficult times.   | 1-5            |
|                             | CFA4 | My response to changes in cash flow was very fast (in a matter of days, not weeks).            | 1-5            |
|                             | CFA5 | I can defer certain payments without disrupting the relationship with the supplier/creditor.   | 1-5            |

Note: Response scale: 1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly agree.