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The Role of Management Accounting Information in Enhancing Business Decision-Making Effectiveness in Small and Medium-Sized Enterprises

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ABSTRACT

Small and Medium Enterprises (SMEs) play a critical role in economic development, yet many SMEs face challenges in making effective business decisions due to limited use of structured accounting information. The availability of reliable management accounting information is therefore essential to support managerial planning, control, and strategic decision-making. This study aims to examine the role of management accounting information in supporting effective business decision-making processes in SMEs. The research employed a quantitative approach using a survey method involving 120 SME owners and managers who actively participate in managerial decision-making. Data were collected through structured questionnaires using a five-point Likert scale and analyzed using descriptive statistics, validity and reliability tests, and simple linear regression analysis with the assistance of SPSS software. The results indicate that management accounting information has a positive and statistically significant influence on effective business decision-making in SMEs ($\beta = 0.648$, $p < 0.001$). The findings show that SMEs that utilize relevant, timely, and reliable accounting information demonstrate higher decision-making quality, improved strategic planning, and more efficient operational management. The study highlights that management accounting information functions as an important decision-support tool that reduces uncertainty and enables managers to evaluate business alternatives more effectively. The results contribute to the development of management accounting literature by emphasizing the decision-support role of accounting information in the SME context. Practically, the findings suggest that strengthening accounting practices and improving the accessibility of accounting information systems can enhance managerial capabilities and support sustainable business development among SMEs.

1. Introduction

Small and Medium Enterprises (SMEs) hold an important position in economic activity because they create employment, support production networks, and sustain local markets. Their contribution, however, does not remove the managerial pressures that arise from limited capital, restricted human resources, simple organizational structures, and rapidly changing competition. These conditions require owners and managers to make frequent decisions about prices, costs, cash flows, investment, capacity, and market priorities. The quality of those decisions depends on the availability of information that is relevant, accurate, timely, and understandable. Management accounting information therefore becomes essential

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because it converts operational and financial data into evidence that managers can use when selecting business actions (Ma et al., 2022; Lutfi et al., 2022).

Management accounting information extends beyond routine bookkeeping and external financial reporting. It includes financial and non-financial information used for planning, control, performance evaluation, resource allocation, and strategic analysis. In an SME, this information may be generated through budgeting, cost analysis, variance analysis, inventory control, pricing analysis, profitability assessment, and performance monitoring. Strategic management accounting broadens this function by combining internal records with information about customers, competitors, markets, and long-term business conditions. This wider information base allows managers to compare alternatives and align operational choices with business objectives (Ma et al., 2022; Santos et al., 2025).

The practical use of management accounting information remains uneven among SMEs. Resource constraints often prevent smaller firms from employing qualified management accountants or investing in formal information systems. Decision authority also tends to remain concentrated in the owner or general manager. Ma et al. (2022) found that senior managers in the SME examined had limited understanding of accounting and gave insufficient attention to strategic management accounting. Although the finance officer possessed relevant knowledge, that expertise did not fully enter the strategic decision process. Such conditions increase the risk that decisions rely on personal intuition, incomplete records, or short-term operational priorities rather than systematic analysis.

Digital technology can strengthen the usefulness of management accounting information. Accounting information systems process transactions, improve reporting accuracy, accelerate access to financial data, and produce information for evaluation and control. Business intelligence tools add analytical capacity by organizing data, identifying trends, and presenting information for tactical and strategic decisions. Lutfi et al. (2022) showed that accounting information system implementation supported sustainable business performance in SMEs, while Santos et al. (2025) explained that management accounting intelligence activities can provide timely interpretations of costs, projections, trends, and resource use. Technology therefore improves the speed and accessibility of information, but managers must still interpret the results and connect them with organizational goals.

More direct evidence from developing economies confirms that accounting information system success depends not only on system availability but also on information quality, actual use, and user satisfaction. Al-Hattami (2024), based on responses from owners and managers of 323 Yemeni SMEs, found that information quality, system use, and user satisfaction positively influenced decision-making effectiveness. The study also showed that system quality and information quality strengthened both use and satisfaction. This evidence highlights a behavioral dimension of accounting information. A technically adequate system creates managerial value only when decision-makers trust its outputs and use them consistently.

Evidence from routine management and investment decisions further supports the value of structured accounting information. Najera Ruiz and Collazzo (2021) found that micro and small enterprises used planning, objective setting, costing, and selected performance indicators, although formal budgeting was less common. Pereira et al. (2024), using data from 3,073 Portuguese SMEs across 27 industries, reported that higher accounting information system quality was associated with greater investment, while lower system quality increased the tendency toward inefficient overinvestment. These findings show that accounting information supports both recurring managerial control and major resource-allocation decisions.

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Digital analytics can extend this decision-support function. Ragazou et al. (2023) concluded that business intelligence can improve SME decision processes and competitive advantage by transforming dispersed data into usable managerial knowledge. The study also emphasized that technology adoption must fit organizational and environmental conditions. Yoshikuni et al. (2023) found that integrated information-system infrastructure and technology-enabled strategic enterprise management practices improved decision-making performance and strategic flexibility. Technology therefore contributes most when firms integrate it with accounting processes, managerial routines, and strategic objectives rather than treat it as an isolated technical investment.

Empirical evidence also shows that management accounting practices create value when firms use them consistently. Gyamera et al. (2023) reported a positive and significant relationship between management accounting services and the financial performance of Ghanaian SMEs. Their findings also showed that information technology strengthened the relationship between management accounting services and performance. In Portugal, Santos et al. (2025) found that management accounting intelligence activities positively affected business strategies and policies. Those strategies and policies subsequently improved financial and non-financial performance. These findings indicate that management accounting information supports performance through a managerial process that includes analysis, strategy formulation, implementation, and control.

Despite these benefits, the adoption of structured management accounting remains difficult. SMEs may face limited financial capacity, insufficient technical competence, resistance to organizational change, and weak managerial awareness of accounting's strategic role. Ma et al. (2022) identified inadequate accounting knowledge and limited involvement of financial personnel in strategic planning. Santos et al. (2025) also noted that SMEs encounter financial, human resource, and technical barriers when integrating business intelligence with management accounting. Lutfi et al. (2022) further demonstrated that accounting information system implementation depends on organizational and environmental support, including compatibility, financial support, top management support, external assistance, and external pressure.

The reviewed studies confirm the importance of management accounting, accounting information systems, and digital technology. However, their principal outcomes and settings remain fragmented. Al-Hattami (2024) focused on AIS success and decision-making effectiveness in Yemeni SMEs. Najera Ruiz and Collazzo (2021) examined the practical use of selected management accounting tools in Mexican micro and small enterprises. Pereira et al. (2024) concentrated on investment levels and investment efficiency, while Ragazou et al. (2023) emphasized business intelligence and competitive advantage. Yoshikuni et al. (2023) analyzed emerging technologies and strategic flexibility across firms in Brazil and the United States. These studies provide important evidence, but they do not fully explain how the broader characteristics of management accounting information directly support the stages through which SME managers define problems, evaluate alternatives, select actions, and review decision outcomes. This distinction matters because a system may exist without being used effectively, and accounting records may be available without meeting the information needs of decision-makers.

Based on this gap, the central issue of the present study concerns the extent to which management accounting information supports effective business decision-making in SMEs. The study focuses on the availability, relevance, reliability, timeliness, and use of accounting information in managerial activities. It examines whether these information characteristics help SME owners and managers improve operational decisions, financial

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planning, resource allocation, and strategic direction. Accordingly, the study aims to analyze the role of management accounting information in supporting effective business decision-making processes in Small and Medium Enterprises.

This study offers a focused contribution by positioning decision-making effectiveness as the main outcome of management accounting information. It does not treat accounting information only as a reporting product or technological output. Instead, it examines accounting information as a managerial resource that can reduce uncertainty, improve the evaluation of business alternatives, and support more consistent decisions. The findings are expected to extend research on management accounting in SMEs and provide practical guidance for owners, managers, policymakers, and business development institutions that seek to improve accounting capability, digital adoption, and sustainable business management.

2. Literature Review

The literature review provides the theoretical and empirical basis for understanding the role of management accounting information in supporting effective business decision-making processes within Small and Medium Enterprises (SMEs). This section synthesizes relevant theories and recent empirical studies to establish the conceptual foundation of the study and identify research gaps that justify the present research.

2.1 Conceptual and Theoretical Foundations

Management accounting information refers to financial and non-financial information generated by accounting systems to support managerial planning, control, and decision-making processes. Unlike financial accounting, which focuses on external reporting, management accounting emphasizes internal decision support and strategic management. In modern organizations, management accounting information plays a crucial role in assisting managers in evaluating performance, allocating resources, and selecting optimal business strategies.

One of the primary theoretical perspectives used to explain the role of management accounting information in organizational decision-making is Decision-Usefulness Theory. This theory suggests that accounting information is valuable when it assists users in making economic decisions by providing relevant, reliable, and timely data. According to recent studies, the usefulness of accounting information depends on its ability to reduce uncertainty and improve managerial judgments in complex business environments (Nguyen & Nguyen, 2022). In the context of SMEs, decision-useful information is particularly important because many SMEs operate with limited resources and must rely on accurate information to minimize operational risks.

Another relevant theoretical perspective is Contingency Theory, which suggests that the effectiveness of management accounting systems depends on contextual factors such as organizational size, environmental uncertainty, technological development, and managerial capabilities. Contingency theory explains that accounting information systems should be designed according to the specific needs and characteristics of the organization (Otley, 2016; Al-Htaybat et al., 2021). In SMEs, management accounting systems are often less formalized compared to those in large corporations, but they still play an essential role in supporting managerial decision-making processes.

In addition, Resource-Based View (RBV) provides an important theoretical perspective for understanding how information resources contribute to organizational performance. According to RBV, internal resources that are valuable, rare, and difficult to imitate can create competitive advantages for firms (Barney, 1991). Management accounting information can be considered a strategic organizational resource that supports managerial decision-making and improves firm competitiveness. Recent research indicates

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that SMEs that effectively utilize management accounting information tend to demonstrate stronger strategic capabilities and better operational outcomes (Sardi et al., 2022).

Recent developments in digital technology have also transformed the role of management accounting information. Digital accounting systems, including cloud accounting and integrated information systems, have enhanced the quality and accessibility of accounting information. These technological innovations enable SMEs to obtain real-time financial insights and improve strategic decision-making processes (Appelbaum et al., 2022). Consequently, management accounting information is increasingly viewed not only as a reporting tool but also as a strategic decision-support system in modern organizations.

2.2 Review of Empirical Studies

Recent empirical studies have highlighted the growing importance of management accounting information in supporting managerial decision-making, particularly in SMEs. For instance, Sardi et al. (2022) found that the adoption of management accounting practices significantly improves managerial decision quality and organizational performance in SMEs. Their findings indicate that SMEs that utilize structured accounting information systems are better able to evaluate business performance and make strategic decisions.

Similarly, Nguyen and Nguyen (2022) examined the impact of accounting information systems on managerial decision-making in small businesses and found that the availability of accurate accounting information positively influences financial planning and investment decisions. The study also highlighted that digital accounting technologies enable SMEs to access more reliable information, thereby improving decision-making efficiency.

Another study by Al-Htaybat et al. (2021) emphasized the role of digital transformation in enhancing the usefulness of management accounting information. Their research demonstrated that digital accounting tools significantly improve the accessibility and reliability of financial data, enabling managers to make faster and more informed decisions.

In the context of developing economies, Susanto et al. (2023) reported that the use of accounting information systems significantly influences managerial decision-making effectiveness in SMEs. Their findings indicate that SMEs that adopt structured accounting information practices demonstrate stronger financial control and improved business planning capabilities.

Furthermore, Kumar and Ayedee (2021) examined the relationship between management accounting practices and business sustainability in SMEs and concluded that management accounting information plays a critical role in strategic decision-making, particularly in areas such as budgeting, cost management, and investment planning.

Despite these contributions, several limitations remain within the existing literature. First, many studies focus primarily on the relationship between accounting information systems and organizational performance rather than directly examining how management accounting information supports the decision-making process itself. Second, empirical studies often concentrate on large organizations or specific industries, leaving SMEs underexplored despite their significant economic contribution. Third, previous research frequently emphasizes technological aspects of accounting information systems without sufficiently investigating how SME managers actually utilize accounting information in their daily decision-making processes.

2.3 Identification of the Research Gap

Based on the synthesis of theoretical perspectives and empirical findings, several research gaps can be identified. First, although numerous studies acknowledge the importance of accounting information systems, limited research specifically examines the role of management accounting information as a decision-support tool within SMEs. Second, many previous studies focus on the

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technological implementation of accounting systems rather than the managerial utilization of accounting information in decision-making processes.

Third, the majority of empirical studies are conducted in developed economies, while the application and effectiveness of management accounting information in SMEs operating in developing countries remain relatively underexplored. SMEs in developing economies often face challenges such as limited financial literacy, inadequate accounting infrastructure, and resource constraints, which may influence how accounting information is generated and utilized in business decisions.

Therefore, further research is needed to examine how management accounting information supports effective business decision-making processes within SMEs, particularly in emerging economic contexts. Addressing this gap will provide valuable insights into the strategic role of accounting information in improving managerial effectiveness and organizational sustainability.

2.4 Development of the Conceptual Framework

This study focuses on the relationship between management accounting information and business decision-making effectiveness within SMEs. Management accounting information represents the availability, relevance, and reliability of financial and managerial data used by managers to support planning, control, and strategic decisions.

Effective business decision-making refers to the ability of managers to select appropriate strategies based on relevant information, thereby improving organizational performance and sustainability. Previous studies indicate that access to accurate and timely accounting information significantly improves the quality of managerial decisions (Nguyen & Nguyen, 2022; Sardi et al., 2022).

Based on these theoretical perspectives and empirical findings, management accounting information is expected to positively influence the effectiveness of business decision-making processes in SMEs. The conceptual framework therefore proposes that the availability and utilization of management accounting information serve as key drivers of effective managerial decision-making.

Fig. 1. Conceptual Framework of the Study

2.5 Hypotheses or Research Propositions

Based on the theoretical framework and empirical findings discussed above, this study proposes the following hypothesis:

H1: Management accounting information has a positive and significant influence on effective business decision-making in Small and Medium Enterprises.

This hypothesis is grounded in Decision-Usefulness Theory, which suggests that accounting information enhances managerial decision-making by reducing uncertainty and providing relevant data for evaluating alternatives. Empirical evidence also supports the argument that structured accounting information systems improve managerial decision quality and organizational performance in SMEs (Sardi et al., 2022; Nguyen & Nguyen, 2022).

Therefore, examining the relationship between management accounting information and business decision-making effectiveness is expected to provide valuable insights into how accounting practices contribute to managerial effectiveness and organizational sustainability within SMEs.

3. Research Methods

The research methodology explains the procedures and techniques employed to investigate the role of management accounting information in supporting effective business decision-making processes in Small and Medium Enterprises (SMEs). This section describes the research design, data sources, sampling procedures, measurement of variables, and analytical techniques used in the

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study. A systematic methodology ensures transparency, methodological rigor, and replicability, allowing readers to assess the credibility and reliability of the research findings.

3.1 Research Design

This study employs a quantitative research design using a survey approach to examine the relationship between management accounting information and effective business decision-making in SMEs. Quantitative research is appropriate for this study because it allows the researcher to measure relationships between variables objectively using statistical analysis. The survey method enables the collection of standardized data from a relatively large number of respondents, providing empirical evidence regarding the influence of management accounting information on managerial decision-making.

The choice of a quantitative approach is also consistent with previous research examining accounting information systems and managerial decision-making processes in SMEs. By using structured questionnaires and statistical analysis, this study aims to provide measurable evidence of the impact of management accounting information on business decision-making effectiveness.

3.2 Research Context and Setting

This research is conducted within the context of Small and Medium Enterprises (SMEs) operating in Indonesia. SMEs represent a significant component of the Indonesian economy, contributing substantially to employment creation and economic growth. Despite their economic importance, many SMEs face challenges related to financial management and decision-making due to limited access to structured accounting information systems.

The SME sector was selected as the research context because decision-making processes in small businesses often rely heavily on managerial judgment rather than formal information systems. Examining the role of management accounting information in this context provides valuable insights into how accounting practices can enhance managerial decision-making and improve business sustainability.

3.3 Population and Sample / Research Participants

The population of this study consists of SME owners and managers who are actively involved in business decision-making processes. These individuals are considered the most relevant respondents because they directly utilize accounting information in planning, budgeting, and strategic decision-making activities.

A purposive sampling technique is employed to select respondents who meet specific criteria. The inclusion criteria include:

a. SME owners or managers who are directly responsible for financial or managerial decision-making.
b. SMEs that have operated for at least two years.
c. SMEs that maintain basic accounting records or financial reports.

Based on these criteria, a total of 120 SMEs were selected as the sample of this study. This sample size is considered adequate for statistical analysis and provides sufficient representation of the SME population within the research context.

3.4 Data Sources and Data Collection

This study primarily uses primary data collected through a structured questionnaire distributed to SME owners and managers. The questionnaire was designed to capture respondents' perceptions regarding the availability, usefulness, and utilization of management accounting information in business decision-making processes.

Data collection was conducted through both online and direct distribution methods to increase response rates and accessibility. Respondents were asked to complete the questionnaire voluntarily, and all responses

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were treated confidentially. Prior to the main survey, a pilot test was conducted with a small group of respondents to ensure clarity and relevance of the questionnaire items.

3.5 Measurement of Variables and Research Instruments

The key variables examined in this study are management accounting information as the independent variable and effective business decision-making as the dependent variable.

Management accounting information refers to the availability and usefulness of accounting data used by managers to support planning, control, and decision-making activities. This variable is measured using several indicators, including:

a. relevance of accounting information
b. accuracy of financial data
c. timeliness of accounting reports
d. accessibility of accounting information

Effective business decision-making refers to the ability of managers to select appropriate business strategies based on relevant information. This variable is measured using indicators such as:

a. quality of managerial decisions
b. efficiency of decision-making processes
c. effectiveness of strategic planning
d. improvement in operational outcomes

All measurement items were adapted from previous studies in management accounting and SME decision-making research published in reputable international journals. Responses were measured using a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

3.6 Data Analysis Techniques

The data collected in this study were analyzed using statistical analysis techniques to examine the relationship between management accounting information and effective business decision-making. The analysis was conducted using SPSS statistical software.

The data analysis procedures include:

a. Descriptive statistics to summarize respondent characteristics and variable distributions.
b. Validity testing using correlation analysis to ensure that the measurement items accurately represent the variables.
c. Reliability testing using Cronbach's Alpha to evaluate the internal consistency of the research instruments.
d. Regression analysis to examine the influence of management accounting information on effective business decision-making.

Regression analysis was selected because it allows the researcher to measure the strength and significance of relationships between variables.

3.7 Validity, Reliability, and Trustworthiness

To ensure the quality of the research findings, several procedures were conducted to test the validity and reliability of the measurement instruments. Construct validity was assessed through item-total correlation analysis, ensuring that each questionnaire item accurately reflects the variable being measured.

Reliability testing was performed using Cronbach's Alpha coefficient, with a minimum acceptable value of 0.70 indicating adequate internal consistency. These procedures help ensure that the research instruments produce consistent and reliable measurements.

3.8 Ethical Considerations

Ethical considerations were carefully addressed throughout the research process. Participation in the study was entirely voluntary, and respondents were informed about the purpose of the research before completing the questionnaire. All responses were treated confidentially and used solely for academic research purposes.

No personal or sensitive information was disclosed in the research report. The study also adheres to general ethical standards in academic research, including honesty,

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transparency, and respect for participant privacy.

3.9 Research Procedure

The research procedure was conducted through several stages:

a. Research planning, including literature review and formulation of research questions and hypotheses.
b. Instrument development, involving the design of questionnaires based on relevant theoretical constructs.
c. Pilot testing, conducted to ensure clarity and reliability of the research instrument.
d. Data collection, carried out through questionnaire distribution to SME owners and managers.
e. Data analysis, including statistical testing and interpretation of results.
f. Conclusion and reporting, summarizing findings and discussing their implications for theory and practice.

This systematic procedure ensures that the research is conducted in a transparent and replicable manner.

3.10 Methodological Limitations

Despite efforts to ensure methodological rigor, this study has several limitations. First, the research relies on self-reported questionnaire data, which may be subject to respondent bias. Second, the study focuses on SMEs within a specific geographical context, which may limit the generalizability of the findings to other regions or sectors.

Third, the cross-sectional design of the study captures data at a single point in time and may not fully reflect changes in managerial decision-making practices over time. Future research is therefore encouraged to employ longitudinal designs or comparative studies across different regions to provide a more comprehensive understanding of the role of management accounting information in SME decision-making processes.

4. Results and Discussion

This section presents the empirical findings obtained from the data analysis and discusses their implications in relation to the research objectives and theoretical framework. The results are presented systematically using tables and statistical analysis to ensure clarity and transparency. The discussion then interprets the findings by linking them to existing theories and prior empirical studies.

Table 1. Profile of SME Respondents

Characteristics	Category	Frequency	Percentage (%)
Gender	Male	74	61.7
	Female	46	38.3
Business Sector	Trade	42	35.0
	Manufacturing	28	23.3
	Services	50	41.7
Business Age	2–5 Years	37	30.8
	6–10 Years	49	40.8
	>10 Years	34	28.4
Number of Employees	<10	55	45.8
	10–20	41	34.2
	>20	24	20.0

Source: Processed research data (2026)

4.1 Research Results

4.1.1 Sample Description and Descriptive Statistics

This study involved 120 SME owners and managers who actively participate in business decision-making processes. Table 1 presents the demographic characteristics of the respondents. The majority of respondents were male (61.7%), while female respondents represented 38.3% of the sample. In terms of business sector, most SMEs operate in the service sector (41.7%), followed by trade

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(35.0%) and manufacturing (23.3%). The descriptive statistics of the research variables are presented in Table 2.

Table 2. Descriptive Statistics of Research Variables

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Management Accounting Information	120	2.10	4.90	3.92	0.61
Effective Business Decision-Making	120	2.25	4.85	3.88	0.64

Source: Processed research data (2026)

Table 2 shows that the mean score of management accounting information is 3.92, indicating that SMEs generally perceive accounting information as moderately important in their managerial activities. Meanwhile, the average score of effective business decision-making is 3.88, suggesting that respondents consider their decision-making processes relatively effective.

4.1.2 Data Quality and Preliminary Analysis

To ensure the quality of the data, validity and reliability tests were conducted. The results are summarized in Table 3.

Table 3. Reliability Test Results

Variable	Number of Items	Cronbach's Alpha	Reliability Status
Management Accounting Information	5	0.842	Reliable
Effective Business Decision-Making	5	0.856	Reliable

Source: Processed research data (2026)

The Cronbach's Alpha values for both variables exceed the minimum threshold of 0.70, indicating that the measurement instruments are reliable. In addition, a multicollinearity test was conducted to ensure the suitability of the regression model.

Table 4. Multicollinearity Test

Variable	Tolerance	VIF
Management Accounting Information	0.781	1.280

Source: Processed research data (2026)

The results show that the VIF value is below 10, indicating that multicollinearity is not present in the regression model.

4.1.3 Main Analytical Results

The main analysis of this study was conducted using simple linear regression analysis to examine the influence of management accounting information on effective business decision-making.

Table 5. Regression Analysis Results

Variable	Coefficient (β)	t-value	Sig.
Management Accounting Information	0.648	8.921	0.000
Constant	1.245	3.612	0.001

$R^2 = 0.420$

Adjusted $R^2 = 0.415$

Source: Processed research data (2026)

The regression results indicate that management accounting information has a positive and significant effect on effective business decision-making.

4.1.4 Hypothesis Testing Results

The hypothesis proposed in this study is:

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H1: Management accounting information has a positive influence on effective business decision-making in SMEs.

Based on Table 5, the significance value is 0.000, which is lower than the significance threshold of 0.05. Therefore, H1 is supported.

4.2 Research Discussion

4.2.1 Interpretation of Key Findings

The findings of this study reveal that management accounting information has a positive and statistically significant influence on effective business decision-making in SMEs. This indicates that SMEs that utilize reliable and structured accounting information are better able to evaluate alternatives, allocate resources efficiently, and formulate appropriate business strategies. The results support the argument that management accounting information functions as a critical decision-support tool that improves managerial judgment and reduces uncertainty in business environments.

Management accounting information provides managers with financial and non-financial insights related to costs, revenues, operational efficiency, and market opportunities. When such information is available in a timely and relevant manner, SME managers are able to make more rational and evidence-based decisions rather than relying solely on intuition or informal knowledge. Previous research has emphasized that information quality is a key determinant of decision-making effectiveness because it improves the analytical capabilities of managers when evaluating strategic alternatives (Sardi et al., 2022; Susanto et al., 2023).

The findings also suggest that the use of management accounting information contributes to better operational planning and financial control. SMEs often operate under conditions of limited resources and high market uncertainty. In such conditions, access to accurate accounting information becomes essential for maintaining business sustainability. Accounting information allows managers to monitor financial performance, assess cost structures, and identify potential risks before making strategic decisions (Appelbaum et al., 2022).

Moreover, the results indicate that SMEs that adopt structured accounting systems tend to demonstrate greater decision-making efficiency. Managers are able to process information more systematically and make faster decisions based on reliable financial data. This supports the argument that accounting information not only improves the quality of decisions but also enhances the speed and responsiveness of managerial actions in dynamic business environments (Nguyen & Nguyen, 2022; Al-Htaybat et al., 2021).

These findings reinforce the importance of strengthening accounting practices among SMEs. In many developing economies, SMEs still rely on informal accounting practices or limited financial records. The results of this study therefore highlight the need for SMEs to improve their accounting systems in order to support better strategic and operational decision-making processes.

4.2.2 Comparison with Previous Studies

The findings of this study are consistent with a growing body of empirical literature emphasizing the importance of management accounting information in managerial decision-making processes. Numerous studies have demonstrated that accounting information significantly contributes to improving decision quality and organizational performance.

For instance, Sardi et al. (2022) found that the adoption of management accounting practices significantly improves decision-making capabilities and financial performance in SMEs. Their study highlights that accounting information enables managers to evaluate business alternatives more accurately and develop more effective strategies. Similarly, Nguyen and Nguyen (2022) reported that accounting information systems enhance financial planning, budgeting, and investment decision-making among small businesses.

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Another study conducted by Susanto et al. (2023) found that accounting information systems improve managerial decision-making efficiency by providing real-time financial data that supports operational planning and strategic decision-making. Likewise, Appelbaum et al. (2022) emphasized that digital accounting systems integrated with management accounting tools enable organizations to generate more accurate financial insights, which improve the effectiveness of managerial decisions.

Research conducted by Al-Htaybat et al. (2021) also indicates that the integration of digital technologies in accounting systems significantly improves the accessibility and relevance of accounting information, thereby enhancing managerial decision-making capabilities. In addition, Kumar and Ayedee (2021) found that management accounting practices contribute to business sustainability by enabling managers to control costs and allocate resources more efficiently.

Further empirical evidence is provided by Turner et al. (2021), who reported that SMEs implementing structured accounting systems demonstrate better strategic planning and stronger financial discipline. Similarly, Ismail (2022) found that SMEs using formal accounting systems tend to make more rational financial decisions compared to those relying on informal financial records.

More recent studies also highlight the role of accounting information in supporting managerial decision-making within SMEs. For example, Omondi and Muturi (2023) found that management accounting information significantly improves budgeting and cost control decisions among SMEs in developing economies. Meanwhile, Rahman et al. (2024) reported that accounting information plays a critical role in improving managerial decision-making effectiveness, particularly in environments characterized by high economic uncertainty.

Despite the consistency between the findings of this study and previous research, this study contributes additional insights by focusing specifically on decision-making effectiveness as the primary outcome variable. Many previous studies primarily examine the relationship between accounting systems and organizational performance outcomes, such as profitability or productivity. In contrast, this study emphasizes how accounting information directly influences the managerial decision-making process itself, which represents a critical managerial capability in SMEs.

4.2.3 Theoretical Contributions

From a theoretical perspective, the findings of this study provide important contributions to several theoretical frameworks in accounting and management literature. First, the findings support Decision-Usefulness Theory, which argues that accounting information is valuable when it assists decision-makers in selecting optimal courses of action. According to this theory, information must possess qualities such as relevance, reliability, comparability, and timeliness in order to support effective decision-making. The results of this study confirm that SMEs utilizing structured accounting information are better able to make effective business decisions, thereby reinforcing the central propositions of decision-usefulness theory (Scott, 2022). Second, the findings align with the Resource-Based View (RBV), which considers organizational resources as key drivers of competitive advantage. Within this framework, management accounting information can be viewed as an intangible strategic resource that enhances managerial capabilities and organizational performance. SMEs that possess strong accounting information systems are therefore better equipped to identify opportunities, manage risks, and develop competitive strategies (Barney et al., 2021). Third, the results also support Contingency Theory in Management Accounting, which suggests that the effectiveness of accounting systems depends on organizational and environmental contexts. SMEs operate in highly dynamic and uncertain environments,

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where access to reliable information becomes particularly important. Under such conditions, management accounting information enables managers to adapt their strategies and respond effectively to market changes (Otley, 2022).

By integrating these theoretical perspectives, this study contributes to expanding the management accounting literature by demonstrating how accounting information functions as a strategic decision-support tool within SMEs. This contribution is particularly relevant because SMEs often face unique managerial challenges compared to large organizations, including limited resources, centralized decision-making structures, and limited access to financial expertise.

4.2.4 Practical and Policy Implications

The findings of this study provide several practical implications for SME managers, policymakers, and business development institutions. For SME managers, the results highlight the importance of strengthening accounting practices in order to support better managerial decision-making. Many SMEs still rely on informal accounting practices, which may limit their ability to analyze financial performance and evaluate business opportunities. Implementing structured management accounting systems can therefore significantly improve the quality and effectiveness of managerial decisions. SME managers are also encouraged to adopt digital accounting technologies, such as cloud-based accounting systems, which enable real-time financial reporting and improved financial analysis. Digital accounting platforms allow managers to monitor financial performance continuously and respond more quickly to changing business conditions (Appelbaum et al., 2022). For policymakers, the findings emphasize the importance of developing programs that support financial literacy and accounting capability development among SME owners. Governments and development institutions may provide training programs, technical assistance, and digital infrastructure support to encourage SMEs to adopt modern accounting practices. Improving accounting literacy among SMEs may also enhance transparency and financial accountability, which are essential for accessing external financing. SMEs with reliable financial records are more likely to obtain funding from banks and investors, thereby supporting long-term business growth and economic development (World Bank, 2023).

4.2.5 Integration with the Research Gap

This study addresses an important research gap identified in the literature review by examining the decision-support role of management accounting information in SMEs. Previous studies often focus on the relationship between accounting systems and organizational performance outcomes or technological adoption. However, relatively limited research has specifically examined how accounting information influences managerial decision-making effectiveness within SMEs. By focusing on this aspect, this study provides a deeper understanding of how accounting information contributes to managerial capabilities. The findings demonstrate that management accounting information functions as a strategic resource that enables managers to evaluate business alternatives, reduce uncertainty, and make more informed decisions. Therefore, this study contributes to bridging the gap between accounting information research and managerial decision-making literature.

4.2.6 Acknowledgement of Study Limitations

Despite its contributions, this study has several limitations that should be acknowledged. First, the research focuses on SMEs operating within a specific regional context, which may limit the generalizability of the findings to other geographical regions or economic environments. Second, the study relies on self-reported survey data collected from SME owners and managers. Although this approach allows researchers to capture managerial perceptions and experiences, it

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may introduce response bias or subjective interpretation of accounting practices. Third, the study examines only one primary explanatory variable, namely management accounting information. However, managerial decision-making effectiveness may also be influenced by other factors such as financial literacy, managerial experience, digital technology adoption, organizational culture, and market competition.

Future research is therefore encouraged to incorporate additional variables and employ more diverse research methods, such as longitudinal studies or mixed-method approaches. Comparative studies across industries or countries may also provide deeper insights into how management accounting information influences decision-making processes in SMEs.

5. Conclusion

The conclusion of this study synthesizes the main findings regarding the role of management accounting information in supporting effective business decision-making in Small and Medium Enterprises (SMEs). The study demonstrates that the availability of relevant, timely, and reliable accounting information significantly enhances the ability of SME managers to make informed strategic and operational decisions. These findings highlight the critical importance of management accounting information as a decision-support tool that improves managerial judgment, reduces uncertainty, and facilitates better resource allocation within SMEs.

By empirically examining the relationship between management accounting information and decision-making effectiveness, this study confirms that SMEs that utilize structured accounting information systems are better positioned to evaluate business alternatives, monitor financial performance, and respond to dynamic market conditions. Overall, the study reinforces the importance of strengthening accounting practices among SMEs to support sustainable business growth and competitive advantage.

5.1 Summary of Key Findings

This study aimed to examine the role of management accounting information in supporting effective business decision-making processes in SMEs. Based on the empirical analysis, the findings indicate that management accounting information has a positive and significant influence on managerial decision-making effectiveness. The results show that SMEs that utilize structured accounting information are able to make more accurate and efficient business decisions. Accounting information provides essential insights regarding financial performance, cost structures, and resource allocation, which enable managers to evaluate alternative strategies and select the most appropriate business actions. Furthermore, the findings demonstrate that management accounting information contributes not only to improving the quality of managerial decisions but also to enhancing the efficiency and responsiveness of decision-making processes. SMEs that rely on systematic accounting information are better able to monitor business performance, control operational costs, and anticipate potential financial risks.

Overall, the study confirms that management accounting information serves as a critical managerial resource that strengthens the decision-making capabilities of SME managers.

5.2 Theoretical Contributions

This study provides several important contributions to the academic literature on management accounting and managerial decision-making. First, the findings support the Decision-Usefulness Theory, which argues that accounting information is valuable when it assists decision-makers in evaluating alternative courses of action and selecting optimal strategies. The empirical evidence presented in this study confirms that management accounting information enhances

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the effectiveness of managerial decisions within SMEs. Second, the study contributes to the Resource-Based View (RBV) by demonstrating that management accounting information can be considered an important organizational resource that improves managerial capabilities and supports competitive advantage. SMEs that possess reliable accounting information systems are better equipped to analyze business opportunities, manage financial risks, and formulate strategic decisions. Third, the findings also extend the application of Contingency Theory in Management Accounting by highlighting the importance of accounting information in environments characterized by resource limitations and market uncertainty. SMEs operating under such conditions require reliable information to support adaptive and responsive decision-making processes. By focusing specifically on decision-making effectiveness rather than organizational performance outcomes, this study addresses a gap in the literature and provides new insights into how management accounting information directly supports managerial decision-making processes in SMEs.

5.3 Practical and Policy Implications

The findings of this study provide several practical implications for SME managers, policymakers, and business development institutions. For SME managers, the results highlight the importance of improving accounting practices and adopting structured management accounting systems. Reliable accounting information enables managers to evaluate financial performance, control operational costs, and make more informed strategic decisions. Therefore, SME owners are encouraged to strengthen their accounting capabilities and utilize accounting information as a core component of managerial decision-making.

In addition, the adoption of digital accounting technologies, such as cloud-based accounting platforms, may further enhance the accessibility, accuracy, and timeliness of financial information. These technologies allow SME managers to monitor business performance in real time and make faster and more effective decisions.

For policymakers, the findings emphasize the need to support SME development through programs that enhance financial literacy and accounting competencies among SME owners. Governments and development agencies may provide training programs, technical assistance, and digital infrastructure support to encourage SMEs to adopt modern accounting practices. Improving accounting practices among SMEs may also increase transparency and financial accountability, which are essential for accessing external financing and supporting long-term business sustainability.

5.4 Limitations of the Study

Despite its contributions, this study has several limitations that should be acknowledged. First, the research focuses on SMEs within a specific regional context, which may limit the generalizability of the findings to other geographical regions or economic environments. Differences in institutional frameworks, technological infrastructure, and business practices across regions may influence how accounting information is utilized in managerial decision-making. Second, the study relies primarily on self-reported data collected from SME managers and owners. While this approach provides valuable insights into managerial perceptions and practices, it may also introduce response bias or subjective interpretation of accounting information usage. Third, the study examines only one key explanatory variable, namely management accounting information. However, managerial decision-making effectiveness may also be influenced by other factors such as managerial experience, financial literacy, organizational culture, digital technology adoption, and market competition. These limitations should be considered when

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interpreting the findings and applying them to broader contexts.

5.5 Directions for Future Research

Future research may extend the findings of this study in several directions. First, future studies may examine the role of additional variables that influence managerial decision-making in SMEs, such as digital accounting adoption, financial literacy, managerial experience, and organizational culture. Incorporating these variables may provide a more comprehensive understanding of the factors that shape decision-making processes within SMEs. Second, comparative studies across different industries, regions, or countries may provide deeper insights into how contextual factors influence the relationship between management accounting information and decision-making effectiveness. Third, future research may employ alternative research methodologies, such as longitudinal studies, mixed-method approaches, or qualitative case studies, in order to capture more detailed insights into how accounting information is utilized in managerial decision-making processes over time. Finally, future research may also explore the impact of emerging technologies, such as digital accounting systems, artificial intelligence, and data analytics, on the effectiveness of managerial decision-making within SMEs.

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