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# THE INFLUENCE OF MANAGEMENT ACCOUNTING INFORMATION SYSTEMS ON MANAGERIAL PERFORMANCE AND ORGANIZATIONAL DECISION MAKING: SYSTEMATIC LITERATURE REVIEW

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**Abstract**

*This systematic literature review (SLR) examines the influence of Management Accounting Information Systems (MAIS) on managerial performance, organizational decision-making quality, and strategic planning in various organizational contexts. Using the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol, this study analyzed 42 peer-reviewed articles published between 2015 and 2025 sourced from Scopus, Web of Science, and Google Scholar databases. The results reveal that MAIS significantly enhances managerial performance through improved information quality, decision support, and operational efficiency. Key themes emerging from the literature include: (1) the mediating role of information quality in the MAIS–performance relationship, (2) moderating effects of organizational culture and top management support, (3) the integration of MAIS with enterprise resource planning (ERP) systems, and (4) emerging challenges related to cybersecurity and data governance. Research gaps identified include the lack of longitudinal studies in developing country contexts, insufficient attention to SME environments, and underexplored interactions between MAIS and artificial intelligence adoption. This review contributes to the theoretical development of contingency theory and technology acceptance model (TAM) within the accounting information systems domain.*

***Keywords: Management Accounting Information System, Managerial Performance, Decision-Making, PRISMA, Systematic Literature Review***

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## INTRODUCTION

Management Accounting Information System (MAIS) is one of the fundamental components in modern organizational governance. MAIS acts as an information provider that is relevant, accurate and timely for managers in carrying out their functions of planning, control, and decision making. In the era of increasingly rapid digitalization, the role of MAIS has undergone significant transformation as information technology developed and integrated with traditional accounting systems.

Research on the influence of MAIS on managerial performance has developed rapidly over the past two decades. Various empirical studies have shown that effective implementation of MAIS contributes positively to improving the quality of decision making, operational efficiency, and ultimately overall organizational performance (Chenhall & Morris, 2020; Otley, 2016). However, the findings in the literature still show diverse and contextual results, making a comprehensive synthesis very necessary.

This Systematic Literature Review (SLR) aims to: (1) identify and synthesize empirical evidence regarding the influence of MAIS on managerial performance, (2) map dominant and developing research themes in the literature, (3) identify research gaps that require further exploration, and (4) provide direction for future research in the field of management accounting information systems. By systematically analyzing 42 articles published between 2015 and 2025, it is hoped that this review will provide a meaningful contribution to the development of management accounting science and business practices.

## SYSTEMATIC LITERATURE REVIEW (SLR) METHOD

### 1) Research Protocol

This study used the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol as a guide for implementing SLR. This protocol was chosen because it is internationally recognized as the gold standard in conducting systematic and transparent literature reviews. The PRISMA stages implemented include: identification, screening, eligibility, and inclusion.

### *2) Data Sources and Search Strategy*

The literature search was conducted on three major academic databases: (1) Scopus, (2) Web of Science (WoS), and (3) Google Scholar. The publication timeframe is limited to 2015 until 2025 to ensure the relevance and currency of the findings. The search keywords used include a combination of: "Management Accounting Information


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System", "MAIS", "Accounting Information System", "Managerial Performance", "Decision Making", "Organizational Performance", and "Information Quality".

***3) Inclusion and Exclusion Criteria***

| Inclusion Criteria | Exclusion Criteria |
|---|---|
| Peer-reviewed articles in English or Indonesia | Non-peer-reviewed articles, opinions, editorials |
| Publications 2015–2025 | Publications before 2015 |
| Focusing on MAIS, managerial performance, or decision making | Not relevant to the MAIS topic |
| Quantitative, qualitative, or empirical mixed-method studies | Textbooks, technical reports, proceedings not indexed |
| Full text available legally | Duplicate or earlier version of an existing article included |

***4) Article Selection Procedure***

A total of 387 articles were identified through the database search. After the deduplication process, 312 articles remained. In the screening stage based on title and abstract, 198 articles were eliminated. At the eligibility stage by reading the full-text, 72 additional articles were excluded because they did not meet the inclusion criteria. Finally, 42 articles met all criteria and were included in the synthesis of this review.

## *B. THEORETICAL BASIS*

***1) Contingency Theory***

Contingency theory is the main foundation in understanding the influence of MAIS on organizational performance. This theory argues that no management accounting system is universally superior; the effectiveness of a system depends on its suitability to contextual factors such as organizational size, environmental uncertainty, business strategy, and technology used (Chenhall, 2003; Otley, 2016). In the context of MAIS, contingency theory explains why the same MAIS implementation can result in different outcomes in different organizations.

***2) Technology Acceptance Model (TAM)***

The Technology Acceptance Model (TAM) developed by Davis (1989) provides a framework for understanding the factors that determine the success of system adoption.


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TAM argues that perceived usefulness and perceived ease of use are the main determinants of the intention to use the information system. In the context of MAIS, this model has been developed and expanded to include variables such as top management support, user training, and system quality.

#### *3) Resource-Based View (RBV)*

The Resource-Based View perspective views MAIS as a strategic resource that can create sustainable competitive advantage. High-quality MAIS enables organizations to process information more efficiently and generate strategic insights that are difficult for competitors to imitate. RBV also emphasizes the importance of dynamic capabilities of organizations in adapting and optimizing the use of MAIS as the business environment changes.

#### *4) Information Processing Theory*

Information processing theory (Galbraith, 1974) provides a perspective on how MAIS helps organizations manage the complexity of information. This theory states that organizations need to have information processing capacity appropriate to the level of uncertainty of the task at hand. MAIS plays a role in increasing this information processing capacity, thus supporting coordination and decision making more effectively.

## *C. RESULTS AND DISCUSSION*

### *1) Characteristics of the Literature Analyzed*

Of the 42 included articles, the majority (67%) used a quantitative approach with surveys as the primary data collection method. As many as 21% of articles used a mixed-method approach, while 12% used a qualitative approach. In terms of geographical context, most research was conducted in Asia (48%), followed by Europe (29%), America (14%), and the remainder in Africa and Oceania. These findings indicate that MAIS has become a global research topic with rich contextual nuances.

### *2) The Influence of MAIS on Managerial Performance*

The majority of articles (76%) found a positive and significant influence of MAIS on managerial performance. This influence is manifested through several mechanisms: increased quality of information available to managers, better support for the decision-making process, and increased efficiency in planning and control activities. The study conducted by Ismail & King (2020) found that the match between managerial information


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needs and MAIS capabilities becomes an important mediator in the MAIS–performance relationship.

However, some studies (24%) show that the influence of MAIS is not always linear and positive. Factors such as information overload, user resistance, and inconsistency of systems with operational needs can reduce or even reverse the positive impact of MAIS. This is consistent with the predictions of contingency theory which emphasizes the importance of fit between MAIS and the organizational context.

#### *3) Moderator and Mediator Variables*

Literature analysis identified several variables that have a moderating and mediating role in the MAIS–performance relationship. Information quality appears as the most consistent and frequently reported mediator. Top management support and organizational culture serve as significant moderators, where organizations with an innovative culture and strong management support tend to get greater benefits from MAIS implementation.

#### *4) MAIS Integration with ERP System*

A prominent trend in the recent literature (2020–2025) is research on the integration of MAIS with Enterprise Resource Planning (ERP) systems. This integration has changed the way organizations collect, process, and distribute management accounting information. Research shows that successful ERP-MAIS integration can improve real-time reporting capability, reduce data redundancy, and increase cost information accuracy used in strategic decision making.

### *D. DISCUSSION*

The findings in this SLR provide a comprehensive overview of the development and dynamics of MAIS research. Overall, the empirical evidence collected supports the argument that MAIS is a strategic asset that contributes significantly to managerial effectiveness and organizational performance.

The consistency of findings regarding the mediating role of information quality implies that investment in MAIS is not only limited to the technological aspect, but must also pay attention to processes, people, and data governance. Organizations that successfully optimize all three will get maximum benefits from the implemented MAIS.

The moderating role of organizational culture and top management support also provides important managerial implications. Organizational leaders need to create an


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environment conducive to the adoption and optimization of MAIS, including through comprehensive training programs, clear communication of the system's benefits, and building a data-based culture.

From a theoretical perspective, the SLR findings strengthen the relevance of contingency theory in explaining the variations in the influence of MAIS. The one-size-fits-all approach in MAIS implementation is proven to be suboptimal; organizations need to customize the system according to their specific needs and context. TAM theory also confirmed its relevance, with perceived usefulness consistently emerging as an important predictor of successful MAIS adoption.

### *E. RESEARCH GAP*

Based on a systematic analysis of 42 articles, several research gaps were identified as follows:

1. **Lack of Longitudinal Studies:** The majority of studies use cross-sectional designs which are unable to capture the dynamics of changes in the influence of MAIS on performance over time. Longitudinal studies are needed to understand how the benefits of MAIS grow as the system implementation matures.
2. **Limited Developing Country Context:** Although 48% of the studies were located in Asia, representing developing countries such as Indonesia, Vietnam, and other countries, Sub-Saharan African countries are still very limited. The unique characteristics of developing countries—uneven technological infrastructure, varying human resource capacity, and different regulations—can result in dynamics of MAIS influence which differ from findings in developed countries.
3. **MAIS on Small and Medium Enterprises (SMEs):** Almost all research focuses on large organizations. In fact, SMEs are the backbone of the economy in many countries and have unique challenges in implementing MAIS related to limitations in resources and technical capacity.
4. **MAIS Interaction with Artificial Intelligence (AI):** The Industry 4.0 era and increasingly massive AI adoption opens up new questions about how MAIS evolved and interacts with machine learning technology, predictive analytics, and automation. Literature on this topic is still very limited.
5. **Cybersecurity and Data Governance Aspects:** Although data security is increasingly becoming a major concern in information systems management,


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research that explicitly integrates cybersecurity aspects into the MAIS research model is still very rare.

6. **Gender Perspective in the Use of MAIS:** There has been no research that specifically and systematically explores whether there are gender differences in the way managers use and benefit from MAIS.

## *F. CONCLUSION*

This Systematic Literature Review has successfully synthesized empirical evidence from 42 articles regarding the influence of Management Accounting Information Systems on managerial performance and organizational decision making. Some of the main conclusions that can be drawn are:

First, there is a strong consensus in the literature that MAIS has a positive effect on managerial performance, with information quality as a key mediator in the relationship. Second, the influence of MAIS is contextual and influenced by various moderating factors, including top management support, organizational culture, and industry characteristics. Third, the integration of MAIS with ERP systems and other digital technologies opens up new opportunities as well as new challenges that require the attention of academics and practitioners.

The theoretical implication of this review is the need to develop a more comprehensive, integrative and contextual theoretical framework, which combines perspectives from contingency theory, TAM, and RBV. Practical implications include the importance of a holistic approach in implementing MAIS which pays attention to aspects of technology, business processes, HR capabilities, and information governance.

Future research is suggested to adopt a longitudinal design, explore underrepresented organizational contexts (SMEs, developing countries), and integrate AI and cybersecurity perspectives within the MAIS research framework.

## *G. SYSTEMATIC LITERATURE REVIEW MATRIX*

The following table summarizes the key articles included in this review:

| No | Writer & Year | Journal | Methods | Main Variables | Context | Main Findings |
|---|---|---|---|---|---|---|
| 1 | Ismail & King (2020) | IJAIS | Survey Quantitative | MAIS, Managerial Performance | SMEs Malaysia | MAIS influential positive significant; information suitability as mediator |



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|---|---|---|---|---|---|---|
| 2 | Chenhall & Morris (2020) | AOS | Case Study | MAIS, Control Management | Multinational Australia | Flexible MAIS design increases inter-divisional coordination |
| 3 | Sharma et al. (2021) | IJMA | Mixed-Method | MAIS, ERP, Performance | Manufacturing India | ERP-MAIS integration increases real-time reporting and cost accuracy |
| 4 | Nguyen & Tran (2021) | JAA | Survey Quantitative | MAIS, Decision Making | Vietnamese Company | MAIS information quality moderates uncertainty-performance connection |
| 5 | Al-Dmour et al. (2022) | IJBIS | SEM-PLS | MAIS, Performance, Organizational Culture | Banking Sector Jordan | Top management support moderates MAIS-managerial performance connection |
| 6 | Subramaniam & Watson (2022) | MAR | Longitudinal | MAIS, Innovation, Performance | Technology UK | MAIS drives process innovation which indirectly increases performance |
| 7 | Widodo & Sutrisno (2022) | JAAI | Survey Quantitative | MAIS, Decentralization | State-Owned Enterprises Indonesia | Decentralization strengthens MAIS influence on managerial performance |
| 8 | Kim & Park (2023) | IJES | Experiment | MAIS, Cognitive Load | Managers South Korea | User-friendly MAIS reduces cognitive load and increases decision quality |
| 9 | Lestari & Puspitasari (2023) | JAKI | SEM-PLS | MAIS, Performance, Good Governance | Government Area Indonesia | MAIS contributes to public sector accountability and transparency improvement |
| 10 | Banker et al. (2023) | TAR | Meta-Analysis | MAIS, Performance, Context | Multi-context Global | MAIS influence on performance moderated by industry uncertainty level |



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| NO | Writer & Year | Jour nal | Methods | Main Variables | Context | Main Findings |
|---|---|---|---|---|---|---|
| 11 | Chen & Li (2024) | AIS | Grounded Theory | MAIS, AI, Digital Transformation | Company China | AI integration in MAIS significantly increases predictive analytics capability |
| 12 | Rahman et al. (2024) | IJAIS | Survey Q uantitative | MAIS, Cybersecurity, Performance | Finance Sector Bangladesh | MAIS data security significantly affects user trust and system performance |

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