

THE USE OF SUSTAINABILITY MANAGEMENT ACCOUNTING INFORMATION SYSTEMS FOR DECISION MAKING IN GOVERNMENT ORGANIZATIONS

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ABSTRACT

This study examines the role of the Sustainability Management Accounting Information System (MAIS) in supporting decision-making within government organizations through a descriptive qualitative approach based on a literature review and document analysis. The results show that MAIS provides relevant, accurate, and timely financial data, thereby improving the quality of local government financial reports, transparency, and public accountability as pillars of good governance. The effectiveness of MAIS is influenced by human resource capacity, institutional commitment, leadership support, and an adaptive organizational culture. Challenges include resistance to change, budget constraints, and data security. Therefore, the continuous development and improvement of civil servant competencies are strategic steps toward effective, transparent, and accountable governance.

ABSTRAK

Penelitian ini mengkaji peran Sistem Informasi Akuntansi Manajemen Keberlanjutan (MAIS) dalam mendukung pengambilan keputusan organisasi pemerintah melalui pendekatan kualitatif deskriptif berbasis tinjauan pustaka dan analisis dokumen. Hasil menunjukkan MAIS menyediakan data keuangan relevan, akurat, dan tepat waktu, meningkatkan kualitas laporan keuangan daerah, transparansi, serta akuntabilitas publik sebagai pilar tata kelola yang baik. Efektivitas MAIS dipengaruhi kapasitas SDM, komitmen kelembagaan, dukungan kepemimpinan, dan budaya organisasi adaptif. Tantangan meliputi resistensi perubahan, keterbatasan anggaran, dan keamanan data. Karena itu, pengembangan berkelanjutan dan peningkatan kompetensi aparatur menjadi langkah strategis menuju tata kelola efektif, transparan, dan akuntabel.

INTRODUCTION

Management Accounting Information Systems (MAIS) play a crucial role in the decision-making process within government organizations, given their close relationship

with the implementation of good governance principles and efforts to support efficient and effective public financial management. MAIS serves not only as a source of accounting information but also as an instrument that enables organizations to make more precise decisions, while simultaneously strengthening transparency and accountability in public budget management (Usman et al., 2022). In this case, the system is capable of providing information quickly, accurately, and relevantly. This information is then used by management at various levels of the organization as a basis for determining policies and strategic decisions. With the support of measurable and systematically documented data, the decision-making process can be carried out more objectively, thus supporting the achievement of organizational goals and improving the quality of service to the public.

The implementation of MAIS has become a primary requirement in government agency financial management, not only to produce accurate reports but also to support effective decision-making. Several studies have shown that understanding government accounting standards and optimizing the use of MAIS contribute to improving the quality of local government financial reports (Mahartini et al., 2021; Taufiqurrohman et al., 2021; Yanti, 2022). Human resource competency, organizational commitment, and work culture also influence the effectiveness of MAIS implementation (Maelani et al., 2021; Nurasfitri et al., 2022), particularly in maintaining information reliability and accuracy in the decision-making process. Thus, MAIS emphasizes not only the technical aspects of information management but also strengthens governance. Maximizing MAIS utilization will help the government strengthen accountability, increase the efficiency of public budget use, and support the achievement of development targets and public services more effectively.

The implementation of MAIS is a crucial strategy for unifying various functions within an organization while providing accurate, relevant, and up-to-date information. This system aids the planning and monitoring process, from budgeting and revenue estimation to cost management and risk analysis, enabling more accurate and data-driven decision-making. The implementation of MAIS is not only related to technical aspects but also involves managerial aspects, such as the availability of adequate technological infrastructure and improving the capabilities of personnel through continuous training. The success of its implementation is greatly influenced by the support of organizational leaders in ensuring compliance with applicable procedures and reducing potential resistance in the workplace (Limbong et al., 2024).

MAIS also contributes to improved coordination between departments through an interconnected system, making information exchange more effective. Furthermore, MAIS strengthens the principles of transparency and accountability by systematically documenting all financial transactions and making them auditable. This helps prevent irregularities and increases public trust in the government. MAIS enables a more comprehensive performance evaluation process and assists in risk management through continuous indicator monitoring. However, MAIS implementation still faces several obstacles, including limited funding, resistance to change, and threats to data security. Therefore, effective implementation

strategies are needed, such as cost-benefit analysis, change management, and strengthening information protection and security systems (Yosep & Indriasih, 2020).

The research problem addressed in this study centers on understanding how MAIS functions as a strategic instrument in supporting decision-making processes within government organizations, particularly in the context of Indonesian local governments. Despite the recognized importance of MAIS, there remains a gap in comprehensive understanding regarding the factors that influence its successful implementation and its actual impact on decision quality and governance outcomes.

The objectives of this research are: (1) to analyze the role of MAIS in supporting decision-making in government organizations, (2) to identify factors that influence the successful implementation of MAIS, and (3) to examine the impact of MAIS implementation on the quality of financial reports and good governance practices. This study contributes to the existing literature by providing a comprehensive synthesis of empirical findings on MAIS implementation in Indonesian government contexts and offering practical recommendations for policymakers and practitioners.

METHOD

This study employs a qualitative descriptive approach to describe the phenomenon under study in depth, without employing random sampling procedures. The choice of a qualitative approach was based on its ability to provide a comprehensive understanding of the background, characteristics, and various aspects related to the problem or phenomenon being studied (Creswell & Creswell, 2018). This approach is particularly suitable for exploring complex organizational phenomena such as the implementation of management accounting information systems in government settings.

Data collection techniques were implemented through a systematic literature review and documentation study of relevant empirical research. The literature search was conducted using academic databases, including Google Scholar, Scopus, and SINTA (Science and Technology Index), with keywords such as "management accounting information systems," "government," "decision making," "good governance," and "financial report quality." The inclusion criteria for selected studies were: (1) empirical research published between 2020 and 2024, (2) studies conducted in Indonesian government contexts, (3) articles published in peer-reviewed journals, and (4) studies specifically addressing MAIS implementation in public sector organizations.

Data validity was tested using two forms of triangulation. First, source triangulation was conducted by comparing information from different studies and informants, such as comparing findings from research conducted in various regional governments. Second, technical triangulation was conducted by comparing findings from different data collection methods across the reviewed studies, including interviews, observations, and document analysis (Flick, 2018).

The data analysis stage was conducted using an inductive approach by identifying patterns, themes, and relationships among information obtained during the research. This involved several steps: (1) organizing and familiarizing with the data, (2) initial coding to identify relevant concepts, (3) grouping codes into themes, (4) reviewing and refining themes, and (5) interpreting findings in relation to the research objectives. The thematic analysis process followed the framework proposed by Braun and Clarke (2006), ensuring systematic and transparent analysis. Furthermore, the results of the analysis are presented in a descriptive narrative form to provide a clearer, more systematic, and comprehensive understanding of the phenomenon being studied.

RESULTS AND DISCUSSION

Role of Management Accounting Information Systems in Government Organizations

The Management Accounting Information System (MAIS) is a combination of information and accounting systems designed to provide relevant information to managers in planning, controlling, and decision-making (Yanti, 2022). In addition to preparing financial reports, MAIS also plays a role in supporting performance management and program evaluation. This enables more accurate and responsive decision-making (Taufiqurrohman et al., 2021).

In the public sector context, MAIS plays several crucial roles. First, the platform provides precise and tailored data to aid the planning and budgeting process. Detailed information on revenue and expenditure enables the government to allocate funds more efficiently and optimally. Second, MAIS supports budget monitoring and control mechanisms to ensure that public funds are used according to regulations. Third, the system contributes to increased transparency and accountability in public financial management, which are essential foundations of good governance (Yosep & Indriasih, 2020).

Research by Usman et al. (2022) explains that MAIS implementation serves not only as a technical tool but also as a crucial component in the implementation of good governance. Based on empirical research conducted by Yanti (2022) in East Tanjung Jabung Regency, it shows that the quality of local government financial reports is significantly influenced by the level of understanding of government accounting standards and the use of the Management Accounting Information System (MAIS). This confirms that MAIS is not just a technical tool but also an important foundation in maintaining the integrity and quality of financial information presented to the public.

Taufiqurrohman et al. (2021) stated that optimal utilization of MAIS can improve the quality of financial reports in the Lebak Regency Government. Therefore, an integrated information system is crucial to ensure that every financial transaction and activity is accurately recorded in the reporting documents. Yosep and Indriasih (2020) explained their findings that the quality of MAIS implementation in public sector organizations not only impacts operational efficiency but also increases organizational resilience in responding to external dynamics quickly and appropriately.

According to Basri et al. (2023), management information systems play a crucial role in improving employee performance effectiveness while driving regional economic growth within the Pekalongan City Government. This demonstrates that MIS is not only oriented towards internal organizational affairs but also makes a significant contribution to local economic development. Mahartini et al. (2021) concluded that the implementation of government accounting standards, a robust internal control system, and an integrated MAIS can improve the quality of financial reports in the Karangasem Regency Government. This finding confirms that MAIS serves as an instrument for maintaining accountability and transparency in public financial reporting.

Factors Influencing MAIS Implementation in Government Organizations

The success of MAIS implementation in government is influenced by various factors. As explained by Limbong et al. (2024), human resource capability in using MAIS and system quality that meets standards are crucial aspects for producing accurate, relevant, and effective information to support the decision-making process. An organizational culture that supports innovation and continuous improvement also plays a crucial role in the success of MAIS implementation.

Based on findings by Nurasfitri et al. (2022), in Bone Bolango Regency, improving the quality of MAIS in village fund management is largely determined by the competence of the apparatus, organizational commitment, and clarity of budget targets. This indicates that the effectiveness of MAIS depends not only on technological sophistication but also on comprehensive support from various aspects of the organization. Maelani et al. (2021) reported that in the Regional Financial and Asset Management Agency Office of Serang Regency, the successful implementation of MAIS was driven by a conducive organizational culture, strong commitment from all levels of the organization, and the availability of accurate and quality information.

According to the findings of Mahartini et al. (2021), an organization that demonstrates a strong commitment to the quality of its internal control system and the application of accounting standards tends to produce higher-quality financial reports. Furthermore, organizational consistency in implementing MAIS also contributes positively to improving the quality of the information produced.

Table 1
Factors Influencing MAIS Implementation in Government Organizations

Factor	Description	Key Studies
Human Resource Competence	Apparatus skills and understanding in using MAIS	Nurasfitri et al., 2022; Limbong et al., 2024
Organizational Commitment	Dedication of organizational members to MAIS implementation	Maelani et al., 2021; Mahartini et al., 2021
Leadership Support	Management backing and resource allocation	Limbong et al., 2024; Usman et al., 2022

Organizational Culture	Work environment that supports innovation and adaptation	Maelani et al., 2021; Yosep & Indriasih, 2020
Technology Infrastructure	Availability of adequate information technology systems	Yosep & Indriasih, 2020; Taufiqurrohman et al., 2021

Impact of MAIS Implementation on Financial Report Quality

One important factor in the use of MAIS in government organizations is its impact on the quality of financial reports. Adequate understanding of government accounting standards and optimal implementation of MAIS can produce quality financial reports. Yanti (2022) stated that increasing human resource capacity in accounting and information systems is key to producing reliable financial reports. Taufiqurrohman et al. (2021) found that the quality of financial reports in East Tanjung Jabung Regency can improve significantly if there is a strong understanding of government accounting standards supported by the use of MAIS.

The implementation of MAIS in decision-making in government agencies depends not only on technological aspects but also on management support and commitment from all organizational elements. Several studies have shown that MAIS is not just a technical tool but a crucial foundation for promoting transparency, accountability, and efficiency in the management of public funds. This makes MAIS a vital tool in realizing accountable and sustainable good governance.

Complex government decision-making processes require accurate, relevant, and timely information. MAIS serves as an information provider to support effective decision-making. In addition to its use in financial management, MAIS is also used to improve resource efficiency and organizational performance. This demonstrates that MAIS implementation is not only technical but also requires regulatory mastery and an understanding of specific government needs. This approach enables state officials to meet the principle of accountability, thereby increasing public trust and achieving good governance (Usman et al., 2022).

MAIS as a Supporting Tool for Decision Making

Optimal implementation of MAIS can improve the quality of decision-making by providing accurate and timely data-based information. Basri et al. (2023) revealed that an effectively implemented management information system can increase employee productivity while simultaneously driving economic growth. This indicates that policies formulated based on information from MAIS have the potential to produce more efficient and relevant decisions to meet public needs.

The availability of timely information helps government leaders develop more accurate strategies. The use of MAIS in the budgeting process to assess programs and determine efficient resource allocations leads to more optimal budget use. MAIS plays a role in providing information to support the strategic decision-making process. MAIS enables government agencies to conduct more in-depth analyses, such as budget planning, program

performance assessments, and measuring the effectiveness of fund use, thus assisting in setting program priorities.

Information sourced from historical data supports the development of long-term financial plans. When the government has historical revenue and expenditure data, financial plans can be prepared more realistically and data-driven. Yanti (2022) states that the quality of regional financial reports is significantly influenced by understanding of government accounting standards and utilization of MAIS.

Quality of MAIS Implementation in the Public Sector

The quality of MAIS implementation in the public sector is a primary focus because it impacts the quality of financial reports and government accountability. According to Yosep and Indriasih (2020), MAIS implementation in public entities requires regular evaluation to ensure the system is running effectively and providing accurate information. Continuous evaluation and feedback mechanisms are needed to support continuous improvement.

The quality of MAIS is a crucial element in supporting the decision-making process, which is assessed based on the level of accuracy, timeliness, relevance, and reliability of the information. Limbong et al. (2024) explained that high-quality implementation has been proven to provide more precise and up-to-date information, which is essential in the decision-making process. However, to achieve this quality, a special focus is needed on education and workforce capacity building. A workforce with the skills and abilities to implement MAIS can process and analyze data more optimally, so that the resulting information becomes more valuable.

Various research findings in several regions indicate that the use of MAIS in government organizations is still not optimal. Without adequate training and understanding, the quality of information produced by MAIS tends to be less than optimal. Mahartini et al. (2021) stated that an organization's dedication to upholding accounting standards and internal control systems significantly influences the quality of financial reports, which in turn impacts the quality of decision-making.

Challenges in Implementing MAIS in Government Organizations

One challenge in implementing MAIS in government organizations is employee resistance to changes from conventional systems. Limbong et al. (2024) stated that the success of MAIS implementation is largely determined by the transformation of organizational culture. Therefore, efforts are needed to increase employee awareness and understanding of MAIS's contribution to improving organizational performance.

In addition, limited resources, both in terms of budget and infrastructure, also contribute to obstacles because not all government institutions have the capacity to invest in appropriate information systems. Taufiqurrohman et al. (2021) emphasized that investment in information technology is crucial for optimal MAIS implementation. Without adequate technology support, the benefits of MAIS in improving decision-making processes will be difficult to realize.

Yosep and Indriasih (2020) argue that implementing MAIS in public sector agencies faces specific challenges, such as complex regulations and high demands for data security. Maintaining accurate and secure information is crucial; therefore, MAIS plays a role not only in efficient data management but also in maintaining its integrity and security.

Importance of Accountability and Transparency

Accountability and transparency are fundamental elements of good governance, and MAIS contributes significantly to strengthening both elements by providing open, clear, and easily accessible financial information to stakeholders, including the public. This can increase public trust and open opportunities for public participation in budget oversight, in line with increased awareness of the right to financial transparency (Basri et al., 2023).

The use of MAIS plays a crucial role in supporting decision-making in government agencies. The use of appropriate technology and an understanding of government needs can improve financial transparency and the quality of strategy development. However, challenges such as regulation and data security still need to be addressed to maximize the benefits of MAIS.

The Role of Technology in MAIS Implementation

Information technology plays a crucial role in supporting the implementation of MAIS in government organizations, accelerating and improving data management efficiency. Integrated systems enable more effective management of financial and non-financial data and facilitate information access for decision-makers. The use of technology plays a role in improving data accuracy and minimizing errors, for example by using accounting software capable of preparing financial reports automatically, timely, and accurately, so that decision-making can be supported by reliable data (Yosep & Indriasih, 2020).

Building an Organizational Culture that Supports MAIS

Implementation of MAIS requires an organizational culture that adapts to innovation, learning, and continuous improvement. This organizational climate can facilitate the acceptance of change and adaptation to new systems. Maelani et al. (2021) stated that employee commitment to MAIS implementation can be enhanced through a positive organizational culture. Management support and a supportive organizational environment help employees understand and implement MAIS optimally, thereby improving information quality and decision-making effectiveness.

Impact of MAIS Implementation on Organizational Performance

The impact of MAIS implementation on organizational performance shows that this system not only improves the decision-making process but also boosts organizational performance thanks to more effective resource management, reduced waste, and increased productivity, which ultimately impacts the quality of public services. Nurasfitri et al. (2022) explained that the successful implementation of MAIS in government institutions contributes to improving the quality of village financial management. This shows that MAIS helps the government maximize the use of available resources to improve services to the

community. With accurate information and comprehensive evaluation, the government can make more precise decisions regarding resource allocation and program design.

Implementation of MAIS as a Sustainability Instrument

The use of the Sustainability Accounting Information System in government agencies serves not only as a reporting tool but also as a strategic instrument that integrates economic, social, and environmental data in a single platform to support more comprehensive decision-making. Government agencies need to design internal regulations that require sustainability considerations at every stage of budget planning so that the Sustainable Development Goals (SDGs) can be operationally realized.

Qualitative findings indicate that MAIS assists agency leaders in mitigating social and environmental risks in every public policy implemented. This shifts the paradigm from focusing solely on budget absorption to creating sustainable public value. The successful implementation of this system is heavily influenced by the commitment of leadership (tone at the top), the competence of human resources in public sector accounting, and the integrity of IT infrastructure. The main obstacles generally lie in sectoral egos between work units and the lack of standard sustainability reporting within the government.

Stakeholder Involvement in Decision Making

Stakeholder participation, including the public, is a crucial element in utilizing MAIS to support inclusive and responsive decision-making. Public engagement helps the government obtain input and understand community needs, while information from MAIS strengthens transparency and communication. Public consultation forums in budget planning can be used to set priorities, using MAIS data as a basis for policy explanations and considerations.

Implementation of MAIS at Various Levels of Government

The implementation of MAIS needs to be implemented not only at the central level but also at the regional level, adapting to the local needs and characteristics of each region. Nurasfitri et al. (2022) explained that the implementation of MAIS at the regional level can support more transparent and optimal village fund management. Effective MAIS implementation in local governments can improve budget management efficiency and the accuracy of financial reporting, thereby strengthening public participation and trust.

CONCLUSION

The main findings of the study indicate that the quality of regional financial reports can be significantly improved through an understanding of government accounting standards and the implementation of Management Accounting Information Systems (MAIS). Empirical studies show that these two factors directly contribute to transparency and accountability (Usman et al., 2022; Yanti, 2022). Furthermore, the implementation of MAIS also influences the effectiveness of employee performance and regional economic growth, as evidenced by a case study in Pekalongan City. These results indicate that a fully

functioning information system not only increases operational effectiveness but also contributes to regional development (Basri et al., 2023).

Internal organizational elements such as organizational culture and institutional commitment also contribute significantly to the quality of MAIS. A study in Serang Regency found that a supportive work environment and high dedication to managing regional finances directly impacted the quality of information produced by MAIS (Maelani et al., 2021). The success of the Management Information System in managing village funds is largely determined by three main factors: staff competence, organizational commitment, and clear budget targets. Research in Bone Bolango Regency indicates that the quality of the system depends not only on the technology used but also on the support of qualified human resources and the commitment of all parties within the organization (Nurasfitri et al., 2022).

Factors influencing MAIS performance in the Deli Serdang Regional Government also encompass unique organizational aspects. These factors include leadership support, the ability to adapt to new technologies, and collaboration between units within the organization (Limbong et al., 2024). MAIS is not simply a technology but a system for realizing good governance, transparency, and accountability. Its implementation requires support from policy aspects, apparatus competence, and an organizational culture open to innovation.

As a recommendation for future research, further studies can focus on utilizing cutting-edge technologies, such as artificial intelligence and blockchain, to improve the quality of MAIS and the decision-making process. Additionally, comparative studies across different regions and government levels would provide valuable insights into contextual factors affecting MAIS implementation success. Longitudinal research examining the long-term impact of MAIS on governance outcomes would also contribute significantly to the literature.

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