

Accounting Information System and Financial Decision-Making: Evidence From a Micro-Enterprise Coffee Shop in Bandung

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ABSTRACT

This study investigates the role of an Accounting Information System (AIS) in supporting financial management and decision-making within a micro-enterprise coffee business in Bandung, Indonesia. Employing a descriptive qualitative design, data were collected through semi-structured online interviews with five key personnel (owner, manager, cashier, barista, and finance officer) and document analysis, including digital cashier (Point-of-Sale) transaction records. Thematic analysis, following Braun and Clarke's (2006) approach, was applied to identify patterns related to revenue, expenditure, and conversion cycles. The findings reveal that the AIS enables real-time transaction recording, facilitates simple financial reporting, and assists in inventory monitoring. However, weaknesses persist in documentation accuracy, supervision, and segregation of duties, leading to potential management override. The study provides empirical evidence on the implementation of AIS in micro-creative industries. It proposes a three-phase improvement model: (1) immediate cash reconciliation and role-based access control, (2) medium-term development of Standard Operating Procedures (SOPs) and employee training, and (3) long-term integration with formal accounting systems. The results have both theoretical implications for AIS adoption in small enterprises and practical relevance for improving financial transparency and control among micro businesses.

Keywords: Accounting Information System; Financial Management; Decision-Making; Internal Control; Micro-Enterprise

INTRODUCTION

The rapid development of digital technology has fundamentally changed the way micro, small and medium enterprises (MSMEs) manage their financial activities and make business decisions. Accounting Information Systems (AIS) have become a key tool in facilitating MSMEs to record, process and report financial data accurately and in real time. For micro-enterprises in the hospitality and creative sectors, such as local coffee shops, the adoption of AIS offers opportunities for operational efficiency as well as challenges related to human resource capabilities, internal control, and data reliability (Akwila & Sujana, 2024). Research by Hakiki (2023) shows that technological advances have a significant effect on the performance of accounting information systems, particularly in the hospitality sector, which has similar characteristics to micro-café businesses in Indonesia.

Although digital accounting tools are becoming increasingly relevant, many micro-enterprises in developing countries, including Indonesia, still rely on manual or semi-digital systems that limit transparency and the quality of managerial decisions. According to Wahyuni (2023), most MSMEs in developing countries face obstacles in the form of limited digital literacy and a lack of integration between recording systems and managerial decision-making. These findings indicate the need for a deeper understanding of the effectiveness of AIS implementation in the context of small businesses with limited resources.

Previous studies have extensively examined the implementation of AIS in large organisations and the manufacturing sector (Romney & Steinbart, 2018). However, empirical evidence from micro-enterprises, especially in Indonesia's creative economy, is still limited. Sabri et al. (2022) emphasise that the effectiveness of AIS is influenced by system quality, information quality, and service quality, which directly impact the business performance of MSMEs. This research provides a theoretical basis that the success of AIS implementation is not only determined by technology, but also by human factors and internal organisational processes. On the other hand, research by Hariyati et al. (2022) found that the integration of management accounting systems and intellectual capital plays an important role in improving the performance of small businesses in Indonesia. This condition shows that the use of AIS is not only limited to financial reporting but also serves as a strategic tool for decision-making and increasing business competitiveness.

In the context of the growing coffee industry in Bandung, micro businesses such as independent cafes are increasingly integrating digital cash registers or Point-of-Sale (POS) applications to facilitate daily transactions. However, the effectiveness of these systems in supporting financial management and decision-making has not been adequately explored. Ashsifa et al. (2023) argue that business strategies and innovations accompanied by

the implementation of AIS can improve the performance and sustainability of MSMEs. This indicates that accounting information systems are not only administrative instruments but also drivers of managerial innovation in micro creative businesses.

Understanding this relationship is crucial for improving financial transparency, reducing operational risks, and strengthening the sustainability of small creative businesses. Therefore, this study aims to explore how AIS contributes to financial management and decision-making in micro-café businesses. Specifically, this study analyses (1) how AIS is applied in the revenue, expenditure, and conversion cycles; (2) the main strengths and weaknesses in the current AIS structure; and (3) how AIS can be improved to strengthen internal control and decision-making processes. By answering these questions, this study aims to fill theoretical and practical gaps in the literature on AIS adoption among micro creative enterprises in developing economies. The findings of this study contribute to a broader understanding of how digital systems shape financial practices in small businesses. Theoretically, this study expands the discussion on the implementation of AIS in resource-constrained environments (Sabri et al., 2022; Wahyuni, 2023). Practically, this research offers insights that can be applied by micro, small, and medium enterprise (MSME) owners, accountants, and policymakers to develop more effective, transparent, and sustainable accounting systems that are in line with Indonesia's digital transformation agenda.

METHOD

This study uses a descriptive qualitative research design to explore the role of Accounting Information Systems (AIS) in supporting financial management and decision-making in the context of micro-enterprises. A qualitative approach is considered appropriate because it allows for a deeper understanding of organisational behaviour, contextual dynamics, and human interactions that shape the implementation and use of AIS. Qualitative research plays a role in describing, examining, analysing, and interpreting various social phenomena that occur within society (Waruwu, 2024). This study adopts a single case study strategy, focusing on Morgy Coffee, a micro coffee business based in Bandung, Indonesia. The case study design allows researchers to investigate accounting practices in a natural operational environment and capture the complexity of system usage, human involvement, and managerial decision-making processes in real-world conditions.

The case study approach is also suitable for accounting information system research in MSMEs because it can provide a deep contextual understanding of financial practices and the human factors that influence them (Nurdiansyah et al., 2024). Participants were selected purposively to ensure that each informant had direct experience in accounting, operations, or business financial management. Five key individuals were involved in this study, including the owner, store manager, cashier, barista, and financial officer. This composition provided a balanced perspective between managerial and operational levels, reflecting how AIS is used in various functions within the company. Each participant had at least six months of work experience and was familiar with the digital cashier system (Point-of-Sale, or POS) integrated into daily business operations. Given the case-focused nature, the number of participants was considered sufficient to achieve information saturation, with no additional insights expected from additional interviews.

Data collection was conducted through semi-structured interviews and document analysis. Interviews were conducted online via Google Meet between April and May 2024, with each session lasting between 35 and 60 minutes. The interview guide consisted of open-ended questions designed to explore the five key components of AIS—people, procedures, data, software, and internal controls—and to understand how these elements influence financial reporting and decision-making. Data analysis followed a thematic approach based on the six-phase framework proposed by Braun and Clarke (2006). The process began with familiarisation through repeated reading of transcripts and documents, followed by inductive coding to identify meaningful patterns and recurring concepts. The codes were then grouped into broader themes that captured the essence of AIS implementation in the company. The themes were reviewed and refined to ensure consistency and representativeness, and then defined and named according to their relevance to the research objectives. The analysis focused on identifying patterns in the three main accounting cycles—income, expenditure, and conversion—helping researchers understand how AIS functions at each stage of financial management. Manual coding and colour coding were used to compare data between participants and identify both similarities and differences in perspective.

To enhance the credibility and reliability of the findings, several strategies were implemented to ensure the reliability of the research. Data triangulation was achieved by comparing interview narratives with documentary evidence. Member checking was conducted by sharing summary interpretations with participants to ensure the accuracy of recorded statements. Peer debriefing was conducted through academic consultation with qualitative researchers experienced in accounting information systems, who provided feedback on the coding process and thematic interpretation. In addition, a detailed audit trail was maintained throughout the research process to document methodological decisions and analytical reasoning. These steps collectively enhanced the credibility, confirmation, and transparency of the findings.

All participants were informed about the research objectives, the voluntary nature of their participation, and their right to withdraw at any time without consequences. Written consent was obtained from all informants

before interviews commenced. To protect the confidentiality of participants and business entities, all names and identifiable details were anonymised in transcripts and final reports. This study adheres to recognised ethical standards for qualitative research and ensures that all data is handled responsibly and securely.

RESULTS AND DISCUSSION

Analysis of data collected from interviews and supporting documents revealed several interrelated themes that describe how the Accounting Information System (AIS) operates in Morgy Coffee's daily financial management. The findings show that although the company has adopted a digital cash register or Point-of-Sale (POS) system as its primary accounting tool, its implementation is still partial and heavily reliant on human supervision. The POS system automatically records daily sales transactions, updates cash data, and generates simple reports, but it is not yet connected to the inventory and comprehensive financial reporting systems. This condition is in line with the research by Hidayati et al. (2023), which found that the implementation of POS in coffee shops does increase the speed and accuracy of transactions, but faces data integration constraints between the sales, inventory, and accounting modules. This causes reconciliation activities to still be carried out manually and prone to input errors. The research results are presented thematically, reflecting the three main accounting cycles observed: income, expenditure, and conversion.

In the revenue cycle, AIS was found to facilitate real-time transaction recording through the POS interface, automatically capturing sales data, updating inventory levels, and generating basic financial reports. This system has significantly improved the efficiency and accuracy of cash management compared to the manual bookkeeping practices previously used (Mukhsin et al., 2024). According to store managers, daily transaction summaries are automatically stored in the system, allowing owners to remotely monitor sales and make immediate pricing or purchasing decisions. This function reflects the value of AIS as an information enabler, in line with Romney and Steinbart (2018), who emphasise that timely and accurate data is critical for managerial decision-making. Furthermore, research by Zohry and Al-Dhubaibi (2024) also confirms that information quality and system competence are key factors in enhancing the effectiveness of AIS in supporting data-driven decisions. However, despite these advantages, the study found that inconsistencies sometimes occur in data entry, especially when promotional discounts or refunds are applied. This finding is reinforced by Zhao (2022), who explains that small businesses that have recently switched to digital systems have generally not yet reached the stage of 'full informatisation', where all business activities are synchronised in real time through an integrated accounting system. This error is mainly due to limited staff training and the absence of standard operating procedures (SOPs) governing the reconciliation of POS data with cash records and physical stock. This weakness shows that it is human factors, not technological limitations, that limit the effectiveness of the system.

The expenditure cycle shows a similar pattern in partial system integration. Although companies record purchase orders and expenditures through the same POS system, most supporting documents such as supplier invoices, delivery notes, and proof of expenditure are still processed manually. This hybrid approach creates gaps in documentation consistency and exposes companies to the risk of misclassification and data entry delays. This condition is in line with the findings of Mediaty et al. (2025), which reveal that many small and medium-sized enterprises still face obstacles in fully integrating accounting information systems due to limited human resources and digital infrastructure. Finance officers explained that expenditure data is sometimes entered several days after the transaction occurs, depending on workload and the availability of proof of payment. These delays undermine the reliability of financial reports and weaken the internal control environment. The absence of automatic matching between purchase records and supplier payments further complicates cash flow monitoring. Arimbi's (2025) research on MSMEs using ESB POS shows a similar pattern: the use of digital systems in certain areas actually causes 'duplication of work' if not supported by integrated workflows and control SOPs. In line with the findings of Sacer et al. (2019), this weakness indicates that AIS in micro-enterprises is often not fully integrated, resulting in fragmented financial information and limited managerial visibility. As a result, decision-making related to cost management, inventory replenishment, and profit margin analysis becomes less effective. Similar findings were also revealed by Putri et al. (2023), who highlighted that the utilisation of digital systems in MSMEs is often hampered by a lack of user training and weak internal supervision, which ultimately reduces the strategic benefits of implementing AIS.

Beyond the three accounting cycles, this study reveals broader themes related to control, accountability, and managerial decision-making. Although company owners benefit from access to daily sales reports, oversight functions remain informal and reactive. The absence of role-based access controls in the POS system means that all employees responsible for the cash register can modify transaction records, creating the potential for management takeover or accidental data changes. This condition is consistent with the findings of Keaunui (2023), which emphasises that weak separation of duties and access controls in MSMEs are among the main causes of inaccurate financial reporting and increased fraud risk. Limited documentation of the authorisation process, combined with the absence of segregation of duties, weakens the company's overall control environment. These findings are consistent with previous research by Hall (2020), which notes that MSMEs

often face structural barriers to establishing strong control mechanisms due to limited staff capacity and informal governance practices. In addition, research by Asmira and Sulkiah (2025) shows that even though accounting digitisation has been adopted, an effective internal control system remains a key aspect of financial report quality in MSMEs. However, the existence of digital records increases traceability and reduces the opportunity for deliberate data manipulation compared to a fully manual system.

From an analytical perspective, the findings indicate that the AIS used by Morgy Coffee has reached the first stage of digital transformation—data entry and reporting automation—but has not yet reached the integration stage, where different financial processes interact seamlessly. This partial digitalisation has resulted in operational improvements but leaves residual risks unaddressed. This situation reflects what McKinney et al. (2021) describe as ‘fragmented digital maturity,’ a stage in which companies adopt technological tools without fully integrating them into their organisational control systems. Chen (2025) also emphasises that effective AIS digitalisation requires financial technology support and strategic planning so that business processes can generate managerial insights, not just data entry automation. In this context, the role of AIS goes beyond simply processing transactions; it becomes a driver of behavioural change and organisational learning. For the system to reach its full potential, technical adoption must be supported by procedural discipline, staff capacity building, and management commitment.

In summary, the results of this study indicate that although the implementation of AIS at Morgy Coffee has improved operational efficiency and record accuracy, its contribution to managerial decision-making and internal control is still limited by incomplete integration and inadequate procedural discipline. Overcoming these limitations requires not only technological upgrades but also organisational commitment to continuous learning and improvement in control. This discussion reinforces the theoretical proposition that the effectiveness of AIS in micro-enterprises depends as much on human and organisational factors as it does on technological capabilities. These findings contribute to the development of the literature on AIS in developing economies and provide practical insights for policymakers, system developers, and business practitioners seeking to strengthen financial governance in small enterprises.

CONCLUSION

This study concludes that the implementation of a Point of Sale (POS)-based Accounting Information System (AIS) at Morgy Coffee has had a positive impact on transaction efficiency and the accuracy of daily financial records. This system assists the business in recording sales in real time, monitoring cash flow, and facilitating the preparation of basic financial reports. However, the effectiveness of the system is still limited because it has not been integrated with inventory management, expenditure, and comprehensive financial reporting. As a result, some processes, such as stock reconciliation and final bookkeeping, are still carried out manually. This limitation in integration indicates that the digitalisation implemented is still in its early stages, where technology is used merely as a transaction tool, not yet as a system capable of comprehensively supporting managerial decision-making. In addition, the study also found that internal controls at Morgy Coffee are still weak, particularly in terms of task distribution, transaction authorisation, and data security. This condition increases the risk of recording errors and reduces the reliability of financial information.

To improve the effectiveness of the system, businesses need to take several improvement measures. First, expand POS integration with accounting software so that recording, expenditure, and reporting processes can run automatically and be interconnected. Second, develop standard operating procedures that include access control, routine reconciliation, and data backup systems. Third, improve digital literacy and training for employees so that they are able to utilise the system optimally. Fourth, develop a long-term digitisation strategy that places SIA as part of efforts to improve financial management and business competitiveness. Theoretically, this study reinforces the findings of Lopung and Rulindo (2023) that the effectiveness of AIS in improving MSME performance depends on the dimensions of timeliness, broad scope, and organisational support for system integration. The implementation of SIA at Morgy Coffee demonstrates that accounting technology can be a catalyst for efficiency and transparency, but its strategic impact will only be optimal if accompanied by strengthening human aspects, procedures, and controls. This study concludes that the effectiveness of AIS in micro-enterprises is not only determined by technological capabilities, but also by the organisation's readiness to manage digital change comprehensively. System integration, management commitment, and human resource capacity building are key factors for digital transformation to truly drive the competitiveness and sustainability of small businesses in the digital economy era.

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