

Exploring the Role of Accounting Information Systems in Improving Operational Efficiency and Financial Reporting Accuracy: A Qualitative Study of Beauty MSMEs in Gorontalo

**Zumran Ibrahim^{1*}, Savira Ramadhani Mokodongan², Natalia Isabel Wantah³,
 Frety Arta Melia Botutihe⁴, Inayah Helingo⁵**
^{1,2,3,4,5}Universitas Negeri Gorontalo
 Email: Zumran.ibrahim@ung.ac.id

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Abstract

This study aims to analyze the implementation of Accounting Information Systems (AIS) in two MSMEs, namely Ggehijaband SASHOP, and evaluate their impact on operational efficiency and financial statement accuracy. Both SMEs have transitioned from manual recording to using AIS applications, such as Qasir, which helps improve transaction processes and inventory management. The results show that AIS can reduce service time from an estimated 10-20 minutes to 2-5 minutes, decrease the workload of cashiers, and improve inventory management consistency. Additionally, SIA has been proven to improve the accuracy of financial reports by reducing pricing errors, COGS calculation errors, and errors in manual transaction recapitulation. Overall, the implementation of AIS has made a positive contribution to business sustainability by improving the effectiveness of internal controls and the quality of information used in decision-making and contributes academically by providing empirical evidence on AIS adoption in MSMEs within a developing economy context.

Keywords: Accounting Information Systems, MSMEs, Operational Efficiency, Financial Statement Accuracy, Accounting Digitalization.

Introduction

Micro, Small, and Medium Enterprises (MSMEs) are the backbone of the Indonesian economy, including in Gorontalo Province. The MSME sector not only contributes to employment but also serves as a driving force for regional economic growth. One rapidly growing subsector is the beauty industry, including salons, facial clinics, and local cosmetic businesses. This sector's growth is driven by increasing public awareness of self-care and modern lifestyle trends. However, despite this significant potential, beauty industry MSMEs still face various challenges in business management, particularly in operational efficiency and financial reporting accountability.

Previous literature shows that the implementation of Accounting Information Systems (AIS) can improve the performance of MSMEs. Research by Azzahrana (2022) confirms that AIS has a positive effect on MSME managerial performance, especially in planning and supervision. Lubis & Lufriansyah (2024) adds that the quality of financial reports is an important mediator in the relationship between AIS and MSME performance. Meanwhile, Saraswati et al. (2021) through an empowerment program, it was found that AIS-based accounting training helps MSMEs prepare more orderly reports and facilitates access to

financing. Lestari & Rustiana (2020) emphasizes that business owners' accounting knowledge is a key factor in optimally utilizing AIS.

Obstacles still faced by beauty MSMEs in Gorontalo are manual financial recording, mixing of personal and business finances, and low accounting literacy which reflect unresolved issues in the actual adoption and utilization of AIS within daily business operations. These conditions result in inaccurate and substandard financial reports, making it difficult for MSMEs to access financing and make strategic decisions despite the availability of digital accounting solutions. Furthermore, operational efficiency is often hampered by the lack of an integrated recording system, resulting in suboptimal stock, cost, and revenue management processes indicating a gap between the theoretical benefits of AIS and its real-world application. Therefore, the implementation of an AIS is expected to be a solution to improve operational efficiency while ensuring the accuracy of financial reports in beauty MSMEs in Gorontalo yet empirical evidence that captures this process from an in-depth, case-based perspective remains limited. To explore this phenomenon, this study specifically focuses on two beauty MSMEs in Gorontalo City using a qualitative approach to address the lack of contextual and practice-oriented insights identified in prior research. The study focused on examining and analyzing the accounting information systems currently implemented by these two businesses to understand the real challenges and specific needs of each brand in a deeper context.

Accounting Information System

An Accounting Information System (AIS) is defined as an integrated system specifically designed to record, manage, process, store, and produce accurate and relevant financial information and other related data for an organization. An AIS combines three basic concepts: systems, information, and accounting, which work together to create an effective reporting and internal control mechanism (Budiandru, 2025).

AIS functions to transform financial data into information needed by management in company management, such as decision-making, planning, operational control, and reporting to external parties. As it develops, AIS is no longer limited to manual recording of financial transactions, but also integrates computer-based information technology to improve efficiency, accuracy, and speed of information presentation (Izza, Terrensia, Erwinda, 2024).

The theory of technology fit with organizational characteristics reveals that MSMEs, as entities with lower operational complexity, budget constraints, and diverse human resource capabilities, require information technology solutions that have the attributes of ease of use, affordability, and simple *scalability*. The mention of *software* such as Accurate Accounting, which explicitly targets MSMEs, and DacEasy, which is designed for small but growing businesses, reflects an understanding of the importance of gradual technological readiness (Annisa, 2022).

Operational Efficiency

Efficiency is a concept that refers to the ability to achieve desired results using minimal resources, whether time, money, energy, or materials. In the context of business operations, efficiency means maximizing output while minimizing required input through process optimization, eliminating non-value-added steps, utilizing appropriate technology, and reducing waste (Syafaruddin et al., 2024).

Operational efficiency in AIS implementation is defined as the use of accounting information systems to optimize business processes, reduce resource waste, and increase overall productivity. AIS automates transaction recording, payroll, and reporting, reducing processing time and operational costs by up to 50% for small businesses and SMEs in Indonesia (Desviana & Firdaus, 2024).

Accuracy of Financial Reports

Financial report accuracy refers to the accuracy and reliability of the financial data presented in the report, ensuring it is free from recording errors, whether caused by human factors or systems. Accurate financial reports reflect the company's actual condition, thus providing a reliable basis for management in formulating business strategies. Inaccuracies in financial reports can potentially lead to ineffective decisions, such as *overstocking* or *understocking*, which ultimately result in financial losses and a decline in the company's competitiveness (Rahmawati et al., 2025).

Implementing an Accounting Information System (AIS) integrated with warehouse operations significantly improves the accuracy of financial reports through automated, real-time transaction recording. This integration helps MSMEs ensure that any inventory changes are immediately reflected in financial reports, reducing human error and accelerating the reporting process. With higher inventory data accuracy, MSMEs can also plan purchases more efficiently, optimize cash flow, and increase competitiveness by fulfilling customer requests more timely (Muzakki et al., 2024).

Method

The type of research used is associative qualitative research with several analyses from literature reviews. The associative qualitative approach is a research paradigm that aims to uncover and understand the complexity of the reciprocal relationships that exist between phenomena in their natural social context (Sugiyono, 2013). This method focuses on efforts to dig up the actual data, namely the values, understandings, and contexts hidden behind the visible data, thus prioritizing the depth of meaning rather than broad coverage (Abdussamad, 2021). This associative qualitative approach is considered the most appropriate because it allows researchers to explore in depth how the SIA implementation mechanism creates patterns of operational efficiency and accuracy of financial reports that will influence managerial decisions.

The study was conducted in two beauty MSMEs in Gorontalo City, namely GgeHijab and SaShop, both located on Jalan Agus Salim, Kota Tengah District, Gorontalo City. These two MSMEs were chosen because they are highly sought after by teenagers and young adults in Gorontalo as places to shop for beauty products and both MSMEs have adopted and utilized information systems in their operations, thus providing adequate opportunities to observe and analyze the implementation of AIS. The research subjects, as primary data sources, were employees working in the cashier section of each MSME based on their strategic position in the use of AIS. Cashier employees are the direct and most intensive users of the accounting information system, especially the sales and cash modules. In addition, cashier employees represent end users who can provide feedback based on practical experience regarding the usability, reliability, and impact of AIS on the accuracy of financial reports and customer service.

This study collected primary data through two main techniques: direct interviews and field observations, which were intended to obtain comprehensive, valid, and reliable data by complementing and testing verbal information from informants with real-world evidence. Interviews were conducted semi-structured, using interview guidelines containing a list of questions prepared by the researcher. Field observations were conducted to directly observe the implementation of the SIA, with the researcher acting as a passive participant present at the location to observe the process without being directly involved in operational activities.

Data analysis techniques in this qualitative research were conducted after data collection through interviews and observations was completed. The next stage was the data reduction stage, which involved coding transcripts and observation notes to identify pieces of data relevant to the research focus. Then, data presentation was performed to examine relationships between categories, patterns, and flows, making them easier to understand. Finally, conclusions were drawn based on the data presentation to formulate meaning, identify consistent patterns, and draw substantive conclusions that address the research objectives.

Results and Discussion

MSME Profile

Ggehijab and SASHOP are two beauty and fashion MSMEs established in 2018 and operating in the Gorontalo region. Both operate in the beauty and *fashion retail sector*, offering a wide range of skincare products, cosmetics, perfumes, hijabs, clothing, bags, shoes, and various women's accessories. The similarity in product types places both MSMEs in the category of businesses with a relatively high level of operational activity, particularly in stock management and daily transactions.

In terms of operational capacity, Ggea has a total of 24 employees spread across three branches, while SASHOP has 33 employees operating across two branches. In addition to serving offline customers, both also serve online customers. Specifically for SASHOP, utilizing third-party applications like Grab and Maxim expands its reach and increases daily transaction volume.

In their early days, transaction recording was still done manually using notebooks. This method proved ineffective as the number of transactions increased, often leading to delays in recording, miscalculations, and difficulties in summarizing daily data. Both MSMEs then switched to using Excel as a digital transition before ultimately implementing an app-based Accounting Information System (AIS).

Implementation of SIA in MSMEs

The implementation of an Accounting Information System at Ggehijab and SASHOP was carried out to improve the accuracy of transaction recording and the effectiveness of operational control. Ggehijab chose to use the **Qasir app**, available on the App Store, as the primary system for transaction recording, stock management, and reporting. Meanwhile, SASHOP uses an internal digital system with similar functions and is integrated with their daily operational processes.

System usage training is limited to certain individuals trusted as cashiers or primary operators. The role of administrators is crucial to the operations of both MSMEs, as they are responsible for managing transaction data, monitoring stock, and overseeing financial reports.

Administrators are also trusted by the business owners, ensuring the accuracy of all data entered through the AIS.

The initial hurdle in system implementation was simply adjusting to the application's use. The adaptation period typically lasts two to four weeks until employees become fully accustomed to the available features. Once the adaptation process is complete, virtually no significant challenges are encountered because the application has been designed to *be user-friendly* to speed up operational processes and reduce the possibility of recording errors.

Impact on Operational Efficiency

The implementation of AIS has had a significant impact on the operational efficiency of both MSMEs. According to interviews, before using AIS, the transaction processing time per customer could take 10 to 20 minutes. This was because cashiers had to manually look up product prices, record transactions in writing, and calculate the total purchase.

However, after using SIA, transaction times dropped dramatically to only around 2 to 5 minutes. The system automatically displays prices via barcodes or stored product lists, significantly speeding up the service process. This reduction in service time directly increases service capacity and reduces customer queues, especially during peak hours.

Furthermore, the stock management feature in AIS is very helpful in improving inventory order. The system automatically records every item coming in and going out, making it easier for business owners to monitor *real-time stock levels* and avoid product shortages. By reducing manual work, the cashier's workload is lighter and more focused. In fact, some cashiers are no longer needed after the system's implementation, allowing for reduced staffing without disrupting smooth operations.

Impact on Financial Report Accuracy

Prior to implementing the AIS, both MSMEs faced various recording errors, such as inconsistent pricing, difficulties in calculating *Cost of Goods Sold (COGS)*, errors in adding daily transactions, and inaccurate inventory records. These errors risked financial losses, poor decision-making, and unstable cash flow.

After using AIS, the entire transaction recording process becomes more accurate and structured. The system automatically processes transaction input into financial reports, including sales reports, profit and loss reports, cash flow reports, inventory recaps, and periodic reports. With greater data accuracy, business owners can make more informed decisions, such as setting product prices, determining discounts at specific times, planning restocks, and even developing promotional strategies based on sales data.

MSME owners stated that all types of reports within the system are very helpful, especially in periodically monitoring business performance and evaluating business strategies. Thus, AIS not only improves the quality of financial reports but also enhances the managerial skills of business owners in running their businesses.

Conclusion

Based on the analysis of two MSMEs, namely Ggehijab and SASHOP, it can be concluded that the implementation of an Accounting Information System (AIS) has a significant impact on improving the quality of business management. The implementation of an AIS has been proven to accelerate administrative processes that previously took longer and

were inefficient. Furthermore, the presence of an AIS also improves the flow of more accurate and easily accessible information, allowing business owners to make decisions more quickly and accurately. Thus, an AIS is a crucial instrument that contributes to improving operational processes and increasing the competitiveness of MSMEs.

In terms of financial reporting accuracy, the use of AIS also has a positive impact because it reduces recording errors that often occur in manual processes. Both MSMEs experienced significant reductions in pricing errors, COGS calculations, and daily transaction summaries. The integrated system helps produce more comprehensive and accountable financial reports. This demonstrates that AIS not only simplifies report preparation but also strengthens more professional accounting practices in MSMEs.

Overall, this study confirms that AIS is an essential component for MSMEs seeking to improve transparency, efficiency, and business sustainability. The findings from Ggehijab and SASHOP demonstrate that AIS implementation can address the classic challenges faced by MSMEs in administration and financial management. With the right system, MSMEs can minimize risks, optimize resources, and strengthen internal controls. Therefore, AIS implementation is a highly relevant strategic solution for businesses in the digital era.

MSMEs are advised to optimize the use of AIS not only for transaction recording, but also for advanced features such as inventory management, financial analysis, and budget planning. Utilizing these features can help MSMEs improve decision-making and broaden their understanding of their business's financial condition. Furthermore, the use of advanced features can minimize the potential for errors in daily operational management. By maximizing all AIS functions, MSMEs can reap greater and more comprehensive benefits.

MSME owners also need to improve their technological literacy by participating in relevant training to ensure optimal use of their AIS. This skill development is crucial because a lack of technological understanding is often a major barrier to AIS utilization. With sound knowledge, users can operate the system with greater confidence and overcome any technical issues that may arise. This step also results in more consistent and effective system use.

The next recommendation is to conduct regular financial reconciliations to ensure all data is consistent and there are no discrepancies in the financial statements. Regular reconciliations help MSMEs maintain data validity and prevent the accumulation of errors that are difficult to correct later. Furthermore, this process supports transparency and accountability in the financial reports produced by the AIS. With this consistency, MSMEs can maintain high-quality reports for evaluation purposes and external needs.

Future research is recommended to expand the number of research subjects to ensure that the findings are more representative of the diverse conditions of MSMEs. Broader research will also allow for the identification of other factors that may influence the effectiveness of AIS implementation across various business sectors. Furthermore, further research could examine the need for additional, more specific features for MSMEs in the digital era. Thus, research on AIS can continue to develop and contribute to improving the quality of MSME accounting practices in Indonesia.

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