

Analysis of the Implementation of the Accounting Information System Cycle at Bandeng Sultan UMKM in Makassar

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Abstract

This study aims to analyze the implementation of the accounting information system cycle at Bandeng Sultan MSMEs in Makassar. The cycles examined include the revenue, expenditure, production, human resource management and payroll cycles, as well as the general ledger and reporting processes. The research method employed is descriptive qualitative, with data collected through observation, interviews, and documentation. The findings indicate that Bandeng Sultan has adopted a smart cashier system for recording revenue, while expense recording and financial reporting are still performed manually. The production process follows a step-by-step method with stringent quality control of raw materials. Hourly-based payroll is recorded manually using Excel. Financial reporting does not fully comply with the SAK EMKM standards. It is recommended to enhance the accounting information system, adopt modern reporting applications, and improve the accounting literacy of MSME actors. This study offers practical insights for similar MSMEs to enhance the effectiveness of financial management.

Keywords: *Accounting Information System, UMKM, Bandeng Sultan, EMKM SAK, Financial Management*

Abstrak

Penelitian ini bertujuan untuk menganalisis penerapan siklus sistem informasi akuntansi pada UMKM Bandeng Sultan di Makassar. Siklus yang diteliti meliputi siklus pendapatan, pengeluaran, produksi, pengelolaan sumber daya manusia dan penggajian, serta proses buku besar dan pelaporan. Metode penelitian yang digunakan adalah deskriptif kualitatif, dengan pengumpulan data melalui observasi, wawancara, dan dokumentasi. Hasil penelitian menunjukkan bahwa Bandeng Sultan telah mengadopsi sistem kasir pintar untuk pencatatan pendapatan, sedangkan pencatatan biaya dan pelaporan keuangan masih dilakukan secara manual. Proses produksi mengikuti metode langkah demi langkah dengan pengendalian kualitas bahan baku yang ketat. Penggajian berbasis jam kerja dicatat secara manual menggunakan Excel. Pelaporan keuangan belum sepenuhnya mematuhi standar SAK EMKM. Disarankan untuk meningkatkan sistem informasi akuntansi, mengadopsi aplikasi pelaporan modern, dan meningkatkan literasi akuntansi para pelaku UMKM. Penelitian ini menawarkan wawasan praktis bagi UMKM sejenis untuk meningkatkan efektivitas manajemen keuangan.

Kata kunci: *Sistem Informasi Akuntansi, UMKM, Bandeng Sultan, SAK EMKM, Pengelolaan Keuangan*

1. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) play a significant role in Indonesia's economy (Tambunan, 2023). Their contributions include job creation, income generation, and strengthening the national economic structure. According to statistical data, MSMEs contribute over 60% to the national Gross Domestic Product (GDP) and provide employment for the majority of the workforce in Indonesia.

However, many MSME actors have not yet managed accounting information systems adequately, resulting in financial records that are often prepared manually and do not comply with applicable standards (Syamsul, 2022). Limited understanding of accounting procedures, lack of technology adoption, and low accounting literacy are the primary challenges hindering the implementation of effective accounting information systems.

The implementation of a robust accounting information system can improve the efficiency, accuracy, and transparency of financial reporting, and support strategic decision-making (Romney & Steinbart, 2014). This is crucial to ensuring business sustainability and growth, as well as building trust among stakeholders, including investors and financial institutions. Despite these benefits, the adoption of accounting information systems in Indonesian MSMEs remains low, particularly in sectors such as fish processing where financial and operational challenges are prevalent.

Bandeng Sultan, an MSME in Makassar engaged in milkfish processing, serves as the case study for this research. In practice, this business demonstrates a willingness to adopt technology but continues to face challenges such as limited accounting literacy among business actors and suboptimal use of digital tools (Savitri & Saifudin, 2018). This aligns with the findings of Revalina and Azahra (2021), who state that digitalization and the adoption of robust information systems can enhance MSME performance.

Moreover, the challenges faced by Bandeng Sultan are not limited to financial record-keeping but also include understanding and compliance with accounting standards applicable to MSMEs, such as SAK EMKM (Kementrian Koperasi dan UMKM, 2019). Strengthening accounting literacy and providing training on technology-based accounting systems are key factors in supporting financial transformation in MSMEs (Tambunan, 2023).

Despite the extensive role of MSMEs in Indonesia's economy, there is a research gap concerning the practical implementation of accounting information system cycles, particularly in the fish processing sector. This study addresses this gap by examining the accounting information system cycle at Bandeng Sultan, including revenue, expenditure, production, human resource management, payroll, general ledger, and reporting processes.

Therefore, this study aims to conduct an in-depth analysis of the accounting information system cycle implementation at Bandeng Sultan, identify its strengths and weaknesses, and propose improvement strategies. The findings of this research are expected to contribute both theoretically, by enriching the literature on accounting information systems for MSMEs, and practically, by providing actionable recommendations for improving financial management practices in similar MSMEs.

2. LITERATURE REVIEW

Accounting Information System (AIS) is a system designed to collect, record, store, and process financial data to generate information that supports effective decision-making (Romney & Steinbart, 2014). Krismiaji (2015) emphasizes that the implementation of an effective AIS contributes significantly to improving the accuracy, efficiency, and accountability of financial management, not only in large organizations but also in Micro, Small, and Medium Enterprises (MSMEs).

In Indonesia, the SAK EMKM (Standar Akuntansi Keuangan Entitas Mikro, Kecil, dan Menengah) serves as the primary financial reporting standard for MSMEs. It emphasizes a simplified yet accurate approach to financial reporting, which includes the preparation of financial position statements, profit and loss reports, and explanatory notes (Kementrian Koperasi dan UMKM, 2019). However, many MSMEs still struggle with implementing these standards due to limited accounting knowledge and technological constraints.

Empirical studies have demonstrated the positive impact of AIS implementation on MSMEs' performance. Research by Revalina and Azahra (2021) shows that the adoption of AIS enhances operational efficiency and supports managerial decision-making. Similarly, Savitri and Saifudin (2018) found that the utilization of smart cashier systems reduces

transaction errors and accelerates the preparation of financial reports, leading to improved financial accuracy.

Tambunan (2023) highlights that strengthening accounting literacy among MSME actors is essential for the successful implementation of AIS. This is supported by the findings of Hall (2011) and Romney & Steinbart (2014), who argue that digitalization, including the adoption of smart cashier applications and cloud-based accounting software, is crucial in enhancing the effectiveness of financial recording, real-time monitoring of cash flow, and cost control in modern business environments.

Furthermore, digital transformation is not merely a trend but a necessity for MSMEs to remain competitive. The integration of technology into accounting practices enables businesses to overcome manual recording limitations, reduces errors, and facilitates compliance with applicable financial reporting standards (Romney & Steinbart, 2014; Hall, 2011).

Based on the aforementioned literature, this study is conducted to examine the implementation of the accounting information system cycle at Bandeng Sultan, an MSME engaged in milkfish processing. By analyzing the AIS cycle in the context of Bandeng Sultan, this study aims to identify the key factors that influence its implementation and provide recommendations for improving financial management practices that align with MSME characteristics and the requirements of SAK EMKM.

3. RESEARCH METHODS

This research employs a descriptive qualitative approach, aiming to analyze the implementation of the accounting information system (AIS) cycle in a real-world MSME context. The qualitative method was chosen to gain a comprehensive understanding of the processes, challenges, and opportunities for improvement within Bandeng Sultan's financial management system.

Data collection techniques included:

- a. Direct observation at the production site, focusing on workflows, accounting practices, and system usage.
- b. Semi-structured interviews with business owners and staff to gather insights on AIS practices, perceptions of technology adoption, and challenges faced.
- c. Document analysis, including the review of supporting documents such as photos, income reports, production data, and manual financial records.

The unit of analysis is Bandeng Sultan MSME, with key informants comprising the business owner and accounting staff directly involved in financial management processes. Data were analyzed using a triangulation approach, comparing and cross-verifying information obtained from observations, interviews, and document analysis to ensure the validity and reliability of the findings. Triangulation strengthens the credibility of the results by identifying converging evidence from multiple data sources (Creswell, 2014).

4. RESULTS AND DISCUSSION

Result

This study identified five main cycles in the implementation of the Accounting Information System (AIS) at Bandeng Sultan MSME. These cycles represent critical stages in the business's financial and operational management, including the revenue, expenditure, production, human resource management and payroll cycles, as well as the general ledger and reporting. Each cycle plays a vital role in supporting the efficiency, accuracy, and transparency of the accounting information system implemented by the business. The results of this study provide a comprehensive overview of the processes at Bandeng Sultan, highlighting differences in the methods used, the findings obtained, and the challenges encountered in each cycle. Detailed descriptions of these cycles are presented in Table 1 below.

Table 1. Overview of the Implementation of Accounting Information System (AIS) Cycles at Bandeng Sultan MSME

SIA Cycle	Process Stages	Method/Tools	Findings	Challenge
Revenue (Sales and Cash Receipts)	Order receipt, confirmation, delivery of goods, issuance of invoices, payment, recording of income	Smart cashier application	Average daily income Rp2,861,318; daily profit Rp963,523	The payment system is not yet automatically integrated
Expenditures (Purchases & Cash Disbursements)	Ordering raw materials, receiving goods, sorting, recording debts, payments to suppliers, recording expenses	Manual (Excel)	Estimated daily expenditure of Rp5-10 million; regular evaluation of production costs	Recording is still manual and simple; not yet integrated
Production	Sorting, seasoning, pressure cooking, cooling, packaging, product storage	Manual, vacuum tool	Detailed and quality production process; price fluctuations are overcome by cooperation with suppliers	Fluctuations in raw material prices, maintaining quality, not yet automatic
HR Management and Payroll	Recruitment, salary determination, attendance, salary calculation, reporting	Manual (Excel)	15 employees, hourly based payroll	No automation system, limited incentives, minimal training
General Ledger & Reporting	Recording income, expenses, salaries, operational costs, financial reporting	Smart cashier application, WhatsApp	Simple recording, reporting is not fully in accordance with SAK EMKM	Lack of accounting literacy, system is not optimal

Source: Research Data, 2024

Based on Table 1, in the revenue cycle, Bandeng Sultan has utilized a smart cashier application to help record sales and cash receipts. The revenue flow starts from customer orders, checking availability, reconfirming orders, receiving cash or transfer payments,

recording receipts, to calculating daily and monthly income. The average daily income was recorded at IDR 2,861,318 with a daily profit of IDR 963,523 (Bandeng Sultan Document, 2024). This finding is in line with research by Harmadji and Yuliana (2023), which shows that the implementation of digital banking as a moderating variable has a significant effect on the financial performance of SMEs in Malang City. However, based on Table 1, the Bandeng Sultan digital payment system has not been integrated automatically, thus potentially causing transaction errors. In the expenditure cycle, based on Table 1, recording is still done manually using Excel with an estimated daily expenditure of IDR 5-10 million. This condition indicates limitations in cost control and inventory management. A study by Priambodo (2025) showed that the implementation of AIS had a positive impact on operational efficiency, such as saving time in recording transactions, reducing recording errors, and increasing the accuracy of financial reports.

Based on Table 1, the Bandeng Sultan production process follows a systematic flow from ordering raw materials, checking quality, seasoning, pressure cooking, cooling, packaging, to storing products in the freezer. However, this system is still manual and not yet integrated. Fluctuations in raw material prices and stock control are the main challenges faced by Bandeng Sultan. Rahim et al. (2016) revealed that fluctuations in the price of fresh sea fish in South Sulawesi are caused by seasonal factors, thus affecting production stability. This condition reinforces the need for stock control and the use of an integrated system to minimize the impact of fluctuations.

In the HR and payroll management cycle, Table 1 shows that salary recording is still done manually using Excel, with employees recruited from local residents to support the local economy. This condition is in line with the findings of Krismiaji (2015) who stated that the manual payroll system is prone to recording errors and late reporting. Manual systems that rely on human ability to record attendance and calculate salaries can increase the risk of human error (Padriyansyah & Pratiwi, 2021).

Based on Table 1, bookkeeping and financial reporting at Bandeng Sultan are still simple, relying on records from the smart cashier application and coordination via WhatsApp. This reporting does not fully follow the principles of SAK EMKM, thus increasing the risk of inaccuracy and late reporting. Harmadji and Yuliana (2023) emphasize the importance of digitalization in financial recording and reporting to improve the efficiency and accuracy of reporting in SMEs.

Compared to previous studies, Bandeng Sultan shows good technology adaptation initiatives in the revenue cycle, but still needs strengthening in the expenditure, production, payroll, and reporting cycles. Increasing financial literacy, adopting simple accounting software, and integrating system digitalization are important steps to support the sustainability and competitiveness of businesses in the modern era.

Discussion

The results of this study indicate that the implementation of the Accounting Information System (AIS) at Bandeng Sultan is still not fully optimal and integrated, although there have

been efforts to adapt technology, especially in the revenue cycle. Based on the findings in Table 1, the use of the smart cashier application has helped record sales and cash receipts more efficiently. This is in line with the research of Harmadji and Yuliana (2023) which emphasized that the implementation of digital banking can increase the speed and accuracy of financial reporting in MSMEs. However, the limited integration of the digital payment system at Bandeng Sultan has the potential to cause errors in recording transactions, as stated by Syamsul (2024), who stated that financial literacy and ease of use of technology greatly influence the success of adopting a digital transaction system, especially in MSMEs. In the expenditure cycle, recording is still done manually with Excel, which indicates limitations in cost control and inventory management. This finding is supported by the research of Pratiwi and Akbar (2022), which states that the implementation of an accounting information system and the use of information technology have a significant effect on improving the performance of MSMEs, both in terms of the accuracy of financial reports and operational control. The manual recording carried out by Bandeng Sultan is in line with the findings which indicate an increased risk of late reporting and data inaccuracy.

The production process of Bandeng Sultan follows a systematic flow from ordering raw materials to packaging, but still uses a manual system that has not been integrated. This strengthens the findings of Rahim et al. (2016) which explains that price fluctuations and availability of raw materials, especially in the fisheries sector, are the main challenges that must be faced by fish processing business actors such as Bandeng Sultan. Therefore, system integration that supports stock control and production cost control is a strategic step to reduce the impact of these fluctuations.

In the HR and payroll management cycle, Bandeng Sultan still records payroll manually using Excel. This condition is in line with the findings of Padriyansyah and Pratiwi (2021) who emphasized that a manual payroll system that is not supported by adequate separation of duties tends to increase the risk of fraud and recording errors, thus affecting the effectiveness of internal control. The manual system that is relied on also increases the potential for human error, especially in calculating salaries and attendance, which in turn has an impact on the smooth operation of the company.

In terms of bookkeeping and reporting, Bandeng Sultan's recording is still simple and does not fully follow the principles of SAK EMKM. This is supported by the findings of Harmadji and Yuliana (2023) which emphasize that digitalization in financial recording and reporting is very important to improve the efficiency, accuracy, and timeliness of financial reporting in MSMEs. This suboptimal financial reporting is a reminder of the need for financial literacy training and the use of simple accounting software so that Bandeng Sultan can increase the credibility of financial reports and facilitate access to funding in the future. Overall, this discussion emphasizes that although Bandeng Sultan has shown initiative in adopting technology in the revenue cycle, strategic steps are still needed to strengthen the integration of accounting information systems as a whole. This includes increasing financial literacy, investing in integrated digital systems, and developing HR capacity. This study

provides a practical contribution to similar MSMEs in adopting AIS to improve financial efficiency and accuracy, and provides a basis for further research related to the impact of AIS adoption on the sustainability of MSME businesses.

5. CONCLUSION

This study aimed to analyze the implementation of the accounting information system (AIS) cycle at Bandeng Sultan, an MSME engaged in milkfish processing. The results revealed that although Bandeng Sultan has begun adopting technology through the use of a smart cashier system in the revenue cycle, the implementation of AIS in other cycles such as expenditure, production, human resource management, and financial reporting remains largely manual. This partial adoption has led to vulnerabilities in accuracy, efficiency, and timeliness of financial record-keeping.

The findings confirm that digital adoption in MSMEs is crucial for improving operational efficiency and financial transparency, as supported by previous studies (Romney & Steinbart, 2014; Hall, 2011). However, the persistence of manual recording in several key processes indicates a need for targeted efforts to improve accounting literacy, adopt simple accounting software, and integrate digital solutions into daily operations.

Challenges identified include limited understanding of accounting standards (SAK EMKM), reliance on Excel and WhatsApp for financial reporting, and the absence of automated payroll and inventory management systems. These challenges align with earlier studies highlighting the importance of digitalization and capacity-building in MSMEs (Syamsul, 2022)

Overall, this study contributes practical insights for similar MSMEs by highlighting the need for comprehensive digitalization, enhanced financial literacy, and adoption of integrated AIS solutions to support business sustainability and competitiveness in the modern economy. Further research is recommended to explore the broader adoption of AIS among MSMEs in different sectors and the long-term impact of digital solutions on financial performance.

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