Proceedings of the International Conference on Education, Economics, Business, Entrepreneurship, and Finance (ICEBEF)
Volume 4 (2025)

Implementation of an Accounting Information System in a Small Handicraft Enterprise: A Qualitative Case Study of D'Korsase Ulfa, Gorontalo, Indonesia

Adelia Maileni Agustin[1], Mumtaz Ali Ridha Al Munawar[2], Myisha Azlia Nafhatus Sofa[3], Nabilla Hapsari Putri Fauzi[4], Talita Ardra Widyadhana[5], Fitrina Kurniati[6]
[123456]Faculty of Economic and Business Education, Universitas Pendidikan Indonesia, Dr Setiabudi Street No. 229, Bandung, West Java, 40154, Indonesia
E-mail: talita.ardra.w@upi.edu; adeliamaileni@upi.edu; nabillahapsaripf@upi.edu; mumtazaliridha001@upi.edu; myishaazlia@upi.edu; fitrina.kurniati@upi.edu.

ABSTRACT
This qualitative case study examines the implementation of an Accounting Information System (AIS) within D'Korsase Ulfa, a small handicraft enterprise located in Gorontalo, Indonesia. The study aims to identify how AIS supports the company's primary business cycles—revenue, expenditure, and conversion—while analysing the internal control mechanisms and potential risks of data misuse. Data were collected through semi-structured interviews with three key informants (the owner, finance staff, and production manager) and by reviewing supporting documents, including sales notes, payroll lists, and goods receipts. The data were analysed using thematic coding through stages of data reduction, data display, and conclusion drawing. The findings reveal that the enterprise integrates SIAPIK, a government-provided accounting application, with manual bookkeeping to ensure operational continuity. Internal control practices, such as access restrictions and daily oversight by the owner, strengthen reliability, although communication gaps and system limitations (e.g., SIAPIK's seven-day input constraint) remain. This study contributes empirical insights into AIS adoption among micro-enterprises in Indonesia, offering practical recommendations for system developers and small business practitioners to enhance data integrity, accountability, and technological readiness.

Keywords: Accounting Information System; SIAPIK; Internal Control; MSME; Qualitative Case Study.

INTRODUCTION

In the era of digital transformation, the implementation of Accounting Information Systems (AIS) has become a strategic necessity for Micro, Small, and Medium Enterprises (MSMEs) that aspire to enhance operational efficiency, transparency, and financial accountability. The AIS serves as a vital mechanism for recording, processing, and reporting financial transactions, thereby enabling business owners to make informed decisions and maintain compliance with taxation and regulatory requirements. As outlined by Turner et al. (2020), an AIS consists of six interrelated components—people, procedures, data, software, information technology infrastructure, and internal controls—that collectively determine the reliability and accuracy of accounting information. Despite its significance, implementing AIS among MSMEs remains a persistent challenge due to limited financial capacity, insufficient digital literacy, and the continued reliance on manual bookkeeping practices that dominate small-scale operations.

In response to these challenges, the Indonesian government has developed SIAPIK (Sistem Aplikasi Pencatatan Informasi Keuangan), a digital accounting platform designed to help micro-enterprises manage daily financial records more efficiently. While this initiative aims to promote financial transparency and digitalisation, empirical observations indicate that many small business owners still prefer manual record-keeping or hybrid systems that combine digital and manual approaches. This dual practice arises from contextual limitations such as unstable internet connectivity, low familiarity with technology, and the need for flexibility in handling business transactions. Previous studies have primarily focused on the technological or adoption dimensions of AIS, highlighting factors such as user acceptance, ease of use, and perceived usefulness (Qatawneh, 2021). However, relatively few studies have examined how AIS is practically implemented in micro-enterprises that must balance traditional business routines with limited technological infrastructure. Even fewer have analysed the internal control mechanisms embedded within these hybrid accounting systems and how they affect the integrity and reliability of financial information (Alsharari, 2021)

This study seeks to fill these gaps by exploring the implementation of an Accounting Information System in D'Korsase Ulfa, a small handicraft enterprise located in Gorontalo, Indonesia. The enterprise provides a relevant context for understanding the realities of micro-businesses that simultaneously face technological, managerial, and human resource constraints. Specifically, this research examines how D'Korsase Ulfa uses the SIAPIK application alongside manual accounting records to support its primary business cycles —revenue, expenditure, and conversion. It also investigates the internal control mechanisms applied within the system and evaluates their effectiveness in ensuring accurate and secure financial reporting. Moreover, the study identifies potential operational and technological risks arising from the coexistence of manual and digital accounting systems, including limitations of the SIAPIK platform, data entry constraints, and communication gaps that may affect system performance.

By addressing these issues, the present study aims to provide a contextual understanding of how AIS contributes to business process efficiency, internal control reliability, and data credibility in small enterprises. The case of D'Korsase Ulfa illustrates how micro-enterprises can adapt government-provided accounting tools within their resource limitations while maintaining accountability in financial management. The findings are expected to offer both theoretical and practical contributions. Theoretically, this research enriches the body of literature on AIS adoption and implementation in developing economies by presenting evidence from a micro-enterprise setting that integrates digital and manual systems. In practice, the insights from this study can assist policymakers, system developers, and small business practitioners in designing more adaptive and inclusive accounting solutions that strengthen data integrity, transparency, and organisational resilience in the context of digital transformation.

METHOD

This research employed a qualitative case study to examine the implementation of an Accounting Information System (AIS) at D'Korsase Ulfa, a small handicraft enterprise in Gorontalo, Indonesia. The qualitative design was chosen to enable a comprehensive understanding of the phenomenon within its real-life organisational context, (Chowdhury 2020) allowing the researcher to capture detailed insights into how accounting processes, technologies, and human practices interact in a micro-enterprise environment. According to Creswell (2016), qualitative inquiry provides a suitable framework for exploring social realities and uncovering meaning from the participants' perspectives. The case study strategy, therefore, enabled an in-depth exploration of how D'Korsase Ulfa adopted and utilised the SIAPIK application alongside its manual bookkeeping practices to manage financial activities.

D'Korsase Ulfa was purposefully selected as the research site because it represents a micro-scale business that exemplifies the hybrid use of digital and manual accounting systems. The enterprise produces handmade woven bags and other craft products with limited human resources and financial capacity, making it an appropriate context for understanding the opportunities and challenges of digital accounting adoption among small enterprises. The study used purposive sampling to identify participants with direct knowledge and experience relevant to the research objectives. Three key informants were engaged in the study: the owner, who manages strategic and financial decision-making; the finance staff, who record daily transactions and maintain financial documents; and the production manager, who oversees expenditure and material procurement. The selection of a small number of participants was justified by the study's emphasis on depth rather than breadth, prioritising the richness of the information over statistical representativeness, consistent with qualitative research principles (Ahmed, 2025).

Data were collected between August and September 2025 using semi-structured interviews and documentation analysis. The semi-structured interview format allowed deeper probing into emerging issues while maintaining consistency across key themes. Each interview lasted approximately 45 to 60 minutes and was conducted face-to-face at the enterprise's premises. The interviews were audio-recorded with the participants' consent and later transcribed verbatim to ensure accuracy. The questions addressed the implementation of the SIAPIK system, the integration between manual and digital records, internal control practices, challenges in maintaining data reliability, and perceptions of risk in the accounting process. In addition to interviews, relevant business documents such as sales notes, payroll lists, and goods receipt records were examined to verify and supplement the interview data. The combination of these two data sources enabled triangulation and provided a holistic understanding of the enterprise's accounting practices.

Data analysis followed the thematic analysis framework proposed by Swain, (2018), complemented by the interactive data analysis model developed by Kalpokaite & Radivojevic (2019). The process involved three primary stages: data reduction, data display, and conclusion drawing. During data reduction, meaningful statements were identified and coded based on their relevance to the research objectives. The codes were subsequently categorised into broader themes reflecting essential aspects of AIS implementation, including system integration, internal control mechanisms, and operational risks. The data display stage involved organising the themes into conceptual groupings and visual matrices to assist in identifying relationships and patterns. In the final stage, the researcher synthesised the findings to construct a coherent narrative that explains how the AIS contributes to financial management efficiency and accountability in the studied enterprise. Throughout this process, the researcher maintained an iterative movement between the raw data and emerging interpretations to ensure the analysis remained grounded and credible (Vasileiou, 2018)

To establish trustworthiness and enhance the validity of the findings, several verification strategies were applied (Birt et al. 2016). Triangulation was achieved by cross-checking information from multiple sources — interviews and documents — to confirm data consistency. Member checking was conducted by sharing the initial findings with participants for confirmation and feedback, ensuring their views were accurately represented. An audit trail was maintained to document all analytical decisions and methodological steps, thereby increasing transparency and dependability. Ethical considerations were strictly observed throughout the research process. Each participant received an explanation of the research purpose, the use of data, and their right to withdraw at any time. Verbal and written consent were obtained prior to data collection. To protect confidentiality, pseudonyms were used, and all recorded and transcribed materials were securely stored and accessed only by the researcher for academic purposes (Ahmed, 2025).

Overall, this methodological framework enabled a rigorous exploration of how an Accounting Information System operates within the realities of a micro-enterprise setting. Statement by Alharasis (2025) says, combining qualitative depth, contextual sensitivity, and systematic validation procedures, the study ensured that the findings reflect authentic organisational practices and contribute to a nuanced understanding of AIS implementation in small enterprises operating under limited resources.

RESULTS AND DISCUSSION

The findings of this study reveal that the implementation of the Accounting Information System (AIS) at D'Korsase Ulfa has evolved through an adaptive process that combines digital innovation with traditional accounting practices. The enterprise employs the SIAPIK application—introduced by the Indonesian government as a financial recording tool for micro-enterprises—alongside a manual bookkeeping system maintained by the finance staff. This hybrid approach has become an operational necessity rather than a deliberate choice, driven by limitations in both human resources and the system's technical functionality. The combination of manual and digital records enables the enterprise to sustain daily operations even when connectivity or system accessibility issues occur. The owner and staff have developed a shared understanding that, while SIAPIK improves the accuracy and speed of data processing, manual records remain essential for validation, reconciliation, and contingency planning. This dual practice mirrors the findings of (Faro, et al. 2022), who observed that many small businesses in Indonesia use hybrid systems as a pragmatic response to infrastructural constraints rather than as evidence of resistance to digitalisation.

The analysis of the business cycle data indicates that SIAPIK plays a central role in managing revenue, expenditure, and conversion processes. In the revenue cycle, the system assists with recording daily sales transactions and automatically summarises them into periodic reports, which the owner uses to monitor performance. In the expenditure cycle, the finance staff uses SIAPIK to record payments for raw materials and operational costs. However, when suppliers require immediate cash transactions, manual notes are still prepared first and later entered into SIAPIK once connectivity is restored. The conversion cycle, which involves transforming raw materials into finished products, is supported by both manual documentation and system-based tracking. However, SIAPIK is not fully integrated with production management. This partial integration reveals a gap in the system's functionality, reflecting the limited digital infrastructure available to small enterprises. Nonetheless, the enterprise demonstrates adaptability through informal control practices, in which the owner routinely reviews daily reports and reconciles them with manual records to ensure accuracy. This behaviour illustrates a form of embedded control consistent with the internal control framework proposed by Turner et al. (2020), where human oversight compensates for system limitations.

Another key finding concerns the effectiveness of internal control mechanisms. The study identifies several practices that enhance the reliability of financial data, including access restrictions, daily monitoring by the owner, and segregation of basic duties between the finance staff and the production manager. The SIAPIK system inherently provides password protection and limited data access, which minimises the risk of manipulation. However, the enterprise's small size and overlapping responsibilities make complete segregation of duties impossible. This limitation is partially mitigated by the owner's active involvement in verifying financial reports and transaction records, which serves both managerial and control functions. The findings are consistent with those of Coetzer, et al. (2019), who argue that internal control in microenterprises is often informal but functionally effective when driven by owner supervision. The study further reveals that the awareness of data security and integrity has increased since the introduction of SIAPIK, even though formal documentation of control procedures remains limited. This reflects a gradual institutionalisation of digital accountability, in which technology serves as both a learning tool and a control mechanism within the enterprise.

Despite these positive developments, several challenges persist. One major issue concerns the system's operational limitations, particularly the seven-day data input restriction built into SIAPIK. The finance staff frequently faces difficulties when recording transactions beyond this time frame, leading to delays and the risk of incomplete data. To cope with this, manual records are kept as temporary backups and later transferred to the digital system once it becomes available. This workaround ensures data continuity but introduces the potential for human error and duplication. Another recurring issue concerns communication and coordination between departments. Since a small team manages most information, misunderstandings occasionally occur regarding payment timing and documentation flow. These findings align with Anjarwati, et al. (2023) arguments, which note that the success of digital accounting systems in small enterprises depends not only on the technology itself but also on communication quality and user competence.

The study also highlights that the enterprise's reliance on manual documentation stems from a broader socio-technical context rather than individual resistance to technology. The owner and staff express a generally positive attitude towards SIAPIK, recognising its usefulness for reporting and transparency, but they also emphasise the need for flexibility and local relevance. This finding supports Alsharari's (2021) view that digital transformation in small enterprises is shaped by contextual adaptation and human agency. In the case of D'Korsase Ulfa, the coexistence of manual and digital systems reflects an incremental process of technological adoption rather than a binary transition. The enterprise integrates technology in a way that complements rather

than replaces existing routines, demonstrating what Smets et al. (2017) describes as "technology-in-practice"—a situated enactment of systems that evolve through everyday work practices.

From a theoretical perspective, these findings contribute to understanding AIS implementation in resource-constrained environments by demonstrating how microenterprises negotiate between technological limitations and operational demands. The evidence suggests that successful AIS adoption in small enterprises depends on the balance between system reliability, user capability, and managerial control. While the SIAPIK application provides structural support for transaction processing and reporting, its effectiveness depends on informal controls, such as direct supervision and owner involvement. This interaction between formal system features and informal human oversight underlines the hybrid nature of control within small enterprises. In practical terms, the study offers implications for both policymakers and system developers. Policymakers are encouraged to provide continuous training and technical assistance to enhance digital literacy among micro-entrepreneurs. At the same time, developers should consider improving SIAPIK's flexibility by extending data input windows and enabling offline functionality to accommodate rural business contexts.

In summary, the results demonstrate that implementing AIS in D'Korsase Ulfa has produced tangible benefits in terms of data accuracy, accountability, and managerial oversight. However, these improvements coexist with structural and procedural challenges that limit the system's full potential. The discussion underscores the adaptive capability of micro-enterprises to integrate technology within their operational constraints, highlighting the importance of human factors in sustaining digital accounting systems. Ultimately, this study confirms that the success of AIS implementation in small enterprises depends not solely on technological adequacy but also on the socio-organisational context in which the system is embedded. The interplay between digital tools, manual practices, and managerial controls forms a dynamic equilibrium that ensures both operational continuity and accountability in resource-limited settings.

CONCLUSION

This study explored the implementation of an Accounting Information System (AIS) in D'Korsase Ulfa, a small handicraft enterprise in Gorontalo, Indonesia. Using a qualitative case study approach, it examined how the enterprise integrates the government-provided SIAPIK application with manual bookkeeping to manage its financial activities. The findings show that this hybrid system enables operational continuity while maintaining data accuracy and accountability amid limited infrastructure and technical capacity. Manual records serve as essential backups, ensuring business resilience when digital access is restricted.

The study also reveals that internal control practices—such as access restrictions, daily monitoring by the owner, and task segregation—effectively enhance reliability despite the enterprise's small size and informal structure. These findings affirm that managerial oversight can serve as a substitute for formal controls in micro-enterprises. Although SIAPIK improves reporting efficiency and transparency, challenges remain, particularly regarding system rigidity, limited integration with production processes, and communication barriers within the organisation.

Theoretically, the research contributes to understanding AIS adoption as a socio-technical process shaped by contextual adaptation rather than purely technological advancement. The coexistence of manual and digital systems reflects incremental digital transformation, supporting the concept of technology-in-practice (Smets et al. 2017). Practically, the study highlights the need for digital literacy training for micro-entrepreneurs, greater system flexibility from developers, and the institutionalisation of basic internal controls to strengthen accountability.

While the study provides valuable insights, its single-case scope limits generalisability. Future research should compare multiple enterprises across sectors and use quantitative analysis to measure the impacts of AIS on performance. Overall, the case of D'Korsase Ulfa illustrates that the success of AIS implementation in micro-enterprises depends less on technological sophistication and more on adaptive capacity, managerial commitment, and context-sensitive integration between human and digital systems.

REFERENCES

Ahmed, S. K. (2025). Sample size for saturation in qualitative research: Debates, definitions, and strategies. *Journal of Medicine, Surgery, and Public Health*, 5, (November 2024), 100171. https://doi.org/10.1016/j.glmedi.2024.100171

Alharasis, E. E. (2025). Evaluating AIS implementation to improve accounting information quality: The prospect in Jordanian family SMEs in the post-Covid-19 age. *Journal of Family Business Management*, 15, (2), 317–345.

Alsharari, N. M. (2021). Institutional change of cloud ERP implementation in the public sector. *International Journal of Disruptive Innovation in Government*, 1, (1), 2–14. https://doi.org/10.1108/ijdig-03-2019-0002

Anjarwati, S., Zaena, R. R., Fitrianingsih, D., & Sulistiana, I. (2023). Pengaruh digitalisasi akuntansi terhadap efisiensi dan pengurangan biaya pada perusahaan wirausaha UMKM di Kota Bandung. *Jurnal Aktiva: Riset Akuntansi dan Keuangan*, 5, (1), 43–58. https://doi.org/10.52005/aktiva.v5i1.181

Birt, L., Scott, S., Cavers, D., Campbell, C., & Walter, F. (2016). Member checking: A tool to enhance trustworthiness or merely a nod to validation? *Qualitative Health Research,* 26, (13), 1802–1811. https://doi.org/10.1177/1049732316654870

Chowdhury, M. S., Ahmmed, F., & Hossain, I. (2020). Methodological dilemma in microfinance research: Applicability of a qualitative case study design. *The Qualitative Report,* 25, (2), 271–290.

Coetzer, A., Wallo, A., & Kock, H. (2019). The owner-manager's role as a facilitator of informal learning in small businesses. *Human Resource Development International,* 22, (5), 420–452. https://doi.org/10.1080/13678868.2019.1585695

Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches.* Sage Publications.

Faro, B., Abedin, B., & Cetindamar, D. (2022). Formas organizativas híbridas en la transformación digital del sector público: Un enfoque de implementación de tecnología. *Journal of Enterprise Information Management,* 35, (6), 1742–1763. https://doi.org/10.1108/JEIM-03-2021-0126

Kalpokaite, N., & Radivojevic, I. (2019). Demystifying qualitative data analysis for novice qualitative researchers. *The Qualitative Report,* 24, (13), 44–57.

Qatawneh, A. M. A. (2021). *An assessment of the impact of IT on accounting information systems: An empirical study of listed banks in Jordan* (Doctoral dissertation). Cardiff Metropolitan University.

Smets, M., Aristidou, A., & Whittington, R. (2017). Towards a practice-driven institutionalism. In *The Sage handbook of organizational institutionalism* (2nd ed., pp. 365–391). Sage Publications.

Swain, J. (2018). *A hybrid approach to thematic analysis in qualitative research: Using a practical example.* Sage Research Methods. https://doi.org/10.4135/9781526435477

Turner, L., Weickgenannt, A. B., & Copeland, M. K. (2020). *Accounting information systems: Controls and processes.* John Wiley & Sons.

Vasileiou, K., Barnett, J., Thorpe, S., & Young, T. (2018). Characterising and justifying sample size sufficiency in interview-based studies: Systematic analysis of qualitative health research over a 15-year period. *BMC Medical Research Methodology,* 18, (1), 148.