
The Role of Accounting Information Systems in Enhancing MSME Performance Post-Pandemic: A Review

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Abstract

This article reviews and synthesizes existing literature on the role of Accounting Information Systems (AIS) in improving the performance of Micro, Small, and Medium Enterprises (MSMEs) in the post-pandemic recovery period. The pandemic accelerated the need for digital tools, making AIS an essential component for enhancing financial transparency, operational efficiency, and business resilience. Using a descriptive qualitative approach based on an article review method, this study analyzes journal publications, conceptual papers, and empirical studies published between 2015 and 2025 that discuss AIS adoption, MSME digital transformation, and post-pandemic business recovery. The review identifies three dominant contributions of AIS to MSME performance: (1) improving operational efficiency through automation of financial processes, (2) strengthening the accuracy, reliability, and transparency of financial reporting, and (3) enhancing managerial decision-making by providing real-time and data-driven insights. In addition, the literature highlights several persistent challenges faced by MSMEs, including limited digital skills, inadequate technological infrastructure, and financial constraints that hinder AIS implementation. This review contributes to a deeper conceptual understanding of AIS as a strategic tool for MSME performance improvement in the post-pandemic era. It also provides practical implications for MSME practitioners and policymakers to strengthen digital capability, promote technology adoption, and support the sustainability and competitiveness of MSMEs in a rapidly evolving digital environment

1. Introduction

The COVID-19 pandemic caused unprecedented disruptions to the global economy, severely affecting the operations and financial stability of Micro, Small, and Medium Enterprises (MSMEs) (Bai et al., 2021; A. Gupta & Kumar Singh, 2023). Many MSMEs experienced liquidity constraints, operational inefficiencies, and declining sales performance due to supply chain interruptions and mobility restrictions (Kaur et al., 2023; Nordhagen et al., 2021). These challenges accelerated the need for digital transformation as a means of survival and business

continuity. Among various digital tools, the Accounting Information System (AIS) has emerged as a critical mechanism that supports MSMEs in adapting to the post-pandemic business environment.

1.1 Literature Review

AIS provides an integrated framework for managing financial transactions, controlling cash flows, and generating real-time data for decision-making (Johri, 2025; Yoshikuni et al., 2023). Post-pandemic, the adoption of digital accounting tools has helped MSMEs improve transparency, enhance financial reporting accuracy, and optimize resource allocation (Rosyidiana & Narsa, 2024). Furthermore, AIS implementation enables businesses to strengthen internal control systems, respond to market volatility, and improve overall strategic performance (Al-Matari et al., 2022; Thompson & Rahman, 2024).

Despite its recognized importance, existing research indicates limited empirical evidence on how AIS specifically contributes to MSME recovery and performance enhancement after the pandemic (Al-Hattami et al., 2024; Lutfi et al., 2022). Most studies focus on large enterprises or general digital adoption rather than the contextual challenges and opportunities faced by MSMEs (Mohanty & Mishra, 2020; Raj et al., 2024). This gap highlights the need for a Literature Review to synthesize existing knowledge and identify future research directions in this area.

Therefore, this study aims to systematically review academic literature to (1) analyze the role of AIS in enhancing MSME performance in the post-pandemic era, (2) identify critical factors influencing its successful implementation, and (3) propose a conceptual framework for sustainable MSME digital transformation. The findings of this review are expected to contribute theoretically to the body of knowledge on digital accounting systems and practically to policymaking for MSME resilience and sustainability.

2. Research Methods

This study employs a descriptive qualitative approach using an article review method to identify, evaluate, and synthesize relevant literature on the role of Accounting Information Systems (AIS) in strengthening the performance of Micro, Small, and Medium Enterprises (MSMEs) in the post-pandemic recovery era. This method was selected because it enables an in-depth analysis of research developments, digital accounting innovations, and institutional frameworks that support financial transparency, operational efficiency, and strategic agility among MSMEs after COVID-19.

The research process was conducted through three main stages. First, the identification stage was carried out by reviewing scientific publications, policy reports, and institutional documents sourced from reputable databases such as Scopus, ScienceDirect, Emerald Insight, Taylor & Francis, and Google Scholar. Additional supporting documents were retrieved from international organizations such as the OECD (2021, 2023) and World Bank (2023), providing insights into global MSME digitalization and financial recovery. The identification stage compiled a broad collection of studies addressing AIS adoption, digital transformation, and MSME performance enhancement.

Second, the thematic classification stage was conducted by organizing the collected literature into several major themes relevant to AIS and MSME performance, namely: (a) adoption and digital readiness of AIS, (b) the influence of AIS on operational efficiency and automation, (c) AIS-driven improvements in financial transparency and reporting accuracy, (d) the role of AIS in strengthening strategic agility and decision-making, and (e) challenges and barriers encountered by MSMEs in AIS implementation. This thematic classification allowed a structured and comprehensive understanding of the relationship between AIS and MSME performance enhancement in the post-pandemic period.

Third, the analysis and synthesis stage aimed to draw comprehensive conclusions from the reviewed literature by comparing findings, evaluating methodological strengths, and identifying similarities and differences across studies. Data analysis applied comparative thematic synthesis, in which prior research on digital accounting tools, cloud-based reporting, e-invoicing systems, mobile accounting platforms, and integrated financial dashboards was compared to derive deeper insights into AIS contributions to MSME recovery. Triangulation

was applied through cross-checking evidence from multiple sources—including academic studies, policy reports, and institutional frameworks—to ensure the validity and reliability of the findings.

To clarify the relevance of each reviewed source to the development of this study, a summary table was prepared highlighting the main references and their contributions to understanding the role of AIS in enhancing MSME performance in the post-pandemic era.

Table 1. Key References Relevant to AIS and MSME Performance Post-Pandemic

Source	Year	Contribution to the Study
OECD. SMEs Going Digital	2021	Provides analytical insights into global challenges and policy recommendations related to MSME digitalization and technology readiness.
World Bank. Digital Finance & MSMEs	2023	Serves as a primary reference for understanding digital financial tools and MSME resilience in the post-pandemic recovery.
Lutfi et al. AIS & Business Sustainability	2022	Explains how AIS adoption enhances MSME business continuity and operational resilience during and after COVID-19.
Al-Okaily et al. Cloud AIS	2023	Highlights how cloud-based AIS increases efficiency, reporting accuracy, and remote business operability for MSMEs.
Rosyidiana & Narsa. MSME Digitalization	2024	Examines digital literacy, innovation, and AIS utilization in improving MSME financial performance.
Johri. AI in AIS	2025	Provides theoretical insight into how AI technologies enhance AIS accuracy, predictive capability, and financial decision support.
Gupta & Singh. MSME Resilience	2023	Identifies organizational, technical, and human barriers affecting MSME capacity to adopt AIS during recovery periods.
Petropoulou et al. Digital Transformation	2024	Offers perspectives on digital adoption drivers and obstacles faced by small enterprises in shifting toward digital systems.
Lestari et al. Technology Adoption	2024	Analyzes how AIS moderates digital adoption and improves MSME resilience in Southeast Asian contexts.
Mátyus et al. Digital Readiness	2025	Explains readiness challenges faced by microenterprises in adopting and implementing digital accounting systems.

3. Result and Discussion

3.1. The Role of AIS in MSME Recovery Post-Pandemic

The COVID-19 pandemic forced MSMEs worldwide to adapt to an increasingly digital and uncertain business environment (Pu et al., 2021; Putritamara et al., 2023). The Accounting Information System (AIS) has emerged as a vital tool that enables MSMEs to restore financial stability, optimize decision-making, and enhance business resilience in the post-pandemic era (Lestari et al., 2024; Mátyus et al., 2025). Findings from the reviewed studies reveal that AIS contributes to MSME recovery through three main dimensions: operational efficiency, financial transparency, and strategic agility.

First, AIS enhances operational efficiency by automating accounting processes such as bookkeeping, invoicing, and inventory control. This automation reduces human error and allows MSME owners to allocate more time to core business strategies rather than administrative tasks. Second, the use of AIS significantly improves financial transparency and accountability. The system enables real-time reporting, better cash flow monitoring, and accurate data analysis, all of which strengthen investor and stakeholder trust—crucial for gaining access to post-pandemic financial support or loans. Third, AIS supports strategic agility by providing reliable financial insights that inform better business decisions during recovery. The integration of cloud-based systems allows MSMEs to operate flexibly and adapt quickly to market changes. Collectively, these roles demonstrate that AIS is not only a financial management tool but also a catalyst for sustainable digital transformation and long-term competitiveness among MSMEs in the post-pandemic recovery phase.

To provide a clearer overview of the multidimensional contribution of Accounting Information Systems (AIS) to MSME recovery after the pandemic, Table 2 summarizes the key functional dimensions, their descriptions,

and their impacts on MSME performance. The table highlights how AIS supports business revitalization through improved operational efficiency, enhanced financial transparency, and strengthened strategic agility.

Table 2. The Role of Accounting Information Systems (AIS) in MSME Recovery Post-Pandemic Sources: (Al-Okaily et al., 2023; Huy & Phuc, 2023; Lestari et al., 2024; Rosyidiana & Narsa, 2024)

Dimension	Description	Impact on MSMEs
Operational Efficiency	Automation of bookkeeping, inventory management, and payroll processing.	Reduces errors, saves time, and improves productivity.
Financial Transparency	Real-time financial reporting and audit readiness.	Enhances accountability and access to financing.
Strategic Agility	Data analytics and decision support via cloud-based systems.	Improves adaptability and competitiveness post-pandemic.

Table 2 summarizes the multidimensional role of Accounting Information Systems (AIS) in supporting the post-pandemic recovery of Micro, Small, and Medium Enterprises (MSMEs). The table identifies three core dimensions operational efficiency, financial transparency, and strategic agility that collectively explain how AIS contributes to improving business performance and sustainability in the new digital era.

The operational efficiency dimension emphasizes how AIS automates repetitive financial and administrative tasks such as bookkeeping, inventory management, and payroll processing (Petropoulou et al., 2024). This automation not only reduces human errors and operational costs but also increases productivity, enabling MSME owners to focus more on business innovation and customer engagement. The financial transparency dimension focuses on the ability of AIS to generate real-time and accurate financial information. Through automated reporting and audit readiness, MSMEs can strengthen accountability and improve access to external financing sources, such as digital loans and government recovery funds.

Finally, the strategic agility dimension highlights the analytical and adaptive capabilities provided by cloud-based AIS platforms. These systems help MSMEs make data-driven decisions, respond quickly to market changes, and maintain competitiveness in an evolving post-pandemic environment. Overall, the table demonstrates that AIS plays a crucial role not only as a technical accounting tool but also as a strategic enabler of MSME resilience, digital transformation, and long-term sustainability.

To visualize the distribution of research emphasis across the three dimensions of the Accounting Information System (AIS) in MSME recovery, Figure 1 illustrates the comparative contribution of operational efficiency, financial transparency, and strategic agility based on the reviewed literature. The figure shows that operational efficiency is the most frequently discussed dimension, followed by financial transparency and strategic agility. Figure 1, below is AIS Contribution Framework to MSME Recovery.

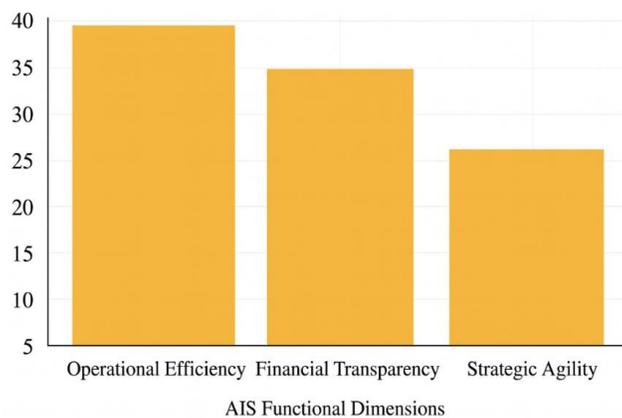


Fig 1. The Contribution Framework of Accounting Information Systems (AIS) Dimensions to MSME Recovery in the Post-Pandemic Era Source: (Cosa & Torelli, 2024; Ovami et al., 2025; Riaz et al., 2025)

Figure 1, illustrates the comparative contribution of the three key functional dimensions of the Accounting Information System (AIS)—operational efficiency, financial transparency, and strategic agility—to the recovery and performance improvement of Micro, Small, and Medium Enterprises (MSMEs) in the post-pandemic era. The data presented in the figure are derived from the synthesis of reviewed literature, indicating the relative emphasis placed on each dimension within academic studies published between 2015 and 2025. As shown in the figure, operational efficiency (40%) emerges as the most dominant dimension discussed in the literature. This reflects the significant role of AIS in automating core business functions such as bookkeeping, payroll processing, and inventory control areas that directly enhance productivity and reduce administrative errors in MSMEs. The second most emphasized dimension is financial transparency (35%), which highlights the growing importance of accurate, real-time reporting and accountability in financial management. Enhanced transparency not only improves internal control but also facilitates MSMEs' access to external financing and investor confidence.

Lastly, strategic agility (25%) represents the adaptive capacity of MSMEs enabled by digital AIS tools, such as cloud-based analytics and decision-support systems. Although less frequently discussed, this dimension underscores the strategic potential of AIS to strengthen resilience, foster innovation, and ensure competitiveness in a volatile post-pandemic business environment. Overall, Figure 1 demonstrates that AIS functions as both an operational enabler and a strategic driver of MSME sustainability and digital transformation.

3.2. Technological Innovation and Digital Integration

Technological innovation has become a cornerstone of MSME recovery and sustainability in the post-pandemic era, with Accounting Information Systems (AIS) serving as a key enabler of digital integration across business functions (Rosyidiana & Narsa, 2024). The literature review reveals that the adoption of cloud-based and mobile accounting platforms has significantly transformed how MSMEs record, manage, and report their financial activities. These digital tools not only enhance operational flexibility but also ensure data accessibility and accuracy, which are critical for strategic decision-making in an uncertain economic environment.

Cloud-based AIS solutions, such as online bookkeeping systems and integrated financial dashboards, have enabled MSMEs to process transactions in real-time while maintaining data security and transparency (Younis et al., 2022). This technological integration supports remote operations, a capability that became essential during and after the COVID-19 pandemic. Moreover, mobile-based applications allow entrepreneurs to monitor financial performance and cash flows anytime and anywhere, increasing managerial responsiveness and efficiency.

The integration of digital innovation into accounting systems also facilitates interconnectivity with other business technologies, including customer relationship management (CRM), inventory systems, and e-commerce platforms (Manjunath et al., 2025). This interconnected ecosystem promotes business agility and improves resource allocation. Furthermore, technological advancements like blockchain and artificial intelligence (AI) have begun to reshape accounting processes by enhancing data verification, reducing fraud, and supporting predictive analytics for financial planning. In summary, technological innovation and digital integration have positioned AIS as more than a financial tool—it has become a strategic infrastructure that drives MSME digital transformation, resilience, and long-term competitiveness in the post-pandemic business landscape.

As illustrated in Table 3, technological innovations such as cloud accounting, mobile applications, blockchain, and AI have become vital in enabling MSMEs to transition toward digitalized and integrated business environments. These technologies not only streamline accounting processes but also create a foundation for sustainable growth and competitiveness.

Table 3. *Technological Innovations Supporting Digital Integration in MSMEs* Source: (Aminullah et al., 2024; Demirgüç-Kunt et al., 2022; Loo et al., 2023; OECD, 2023)

Technological Component	Description	Impact on MSMEs
Cloud-based AIS	Online accounting platforms enabling real-time financial transactions and secure data storage.	Enhances efficiency, accessibility, and reduces manual processing errors.
Mobile Applications	Mobile accounting tools for on-the-go financial tracking and reporting.	Improves decision-making speed and managerial control.
Blockchain Technology	Decentralized systems ensuring data security and transaction transparency.	Prevents fraud and increases stakeholder trust.
Artificial Intelligence (AI)	Predictive analytics and automation for smarter financial forecasting.	Improves planning accuracy and operational agility.
Integrated Platforms (CRM, ERP, E-commerce)	Linking AIS with customer, sales, and supply chain systems.	Strengthens digital ecosystem and holistic business management.

Table 3 provides a comprehensive summary of the main technological innovations that support the digital integration of Micro, Small, and Medium Enterprises (MSMEs) through the implementation of Accounting Information Systems (AIS). The table identifies five key components cloud-based AIS, mobile applications, blockchain technology, artificial intelligence (AI), and integrated platforms each of which contributes uniquely to improving MSME performance, efficiency, and resilience in the post-pandemic business environment.

The adoption of cloud-based AIS enables MSMEs to perform accounting processes in real-time, ensuring data accessibility, security, and cost efficiency (Vo Van et al., 2024). This system minimizes manual errors while allowing remote access an essential capability in the post-pandemic era. Mobile accounting applications further enhance managerial responsiveness by allowing entrepreneurs to track financial performance and make informed decisions from anywhere.

Blockchain technology strengthens financial integrity through decentralized systems that enhance transaction transparency and prevent fraud (Rahnama, 2025). Meanwhile, AI-powered tools provide predictive analytics and automation that improve financial forecasting, risk management, and operational agility. Finally, integrated platforms linking AIS with Customer Relationship Management (CRM), Enterprise Resource Planning (ERP), and e-commerce systems enable MSMEs to create a unified digital ecosystem, facilitating real-time coordination across business functions.

Overall, the table highlights that technological innovations embedded within AIS not only improve accounting accuracy and reporting efficiency but also act as strategic catalysts for digital transformation, business adaptability, and long-term sustainability among MSMEs in the post-pandemic era.

To illustrate the relative impact of various technological innovations on MSME digital transformation, Figure 2 presents a comparative analysis of five key technologies commonly integrated into Accounting Information Systems (AIS). The figure highlights that cloud-based AIS and integrated platforms have the highest perceived impact on digital integration, followed by artificial intelligence (AI), mobile applications, and blockchain technology.

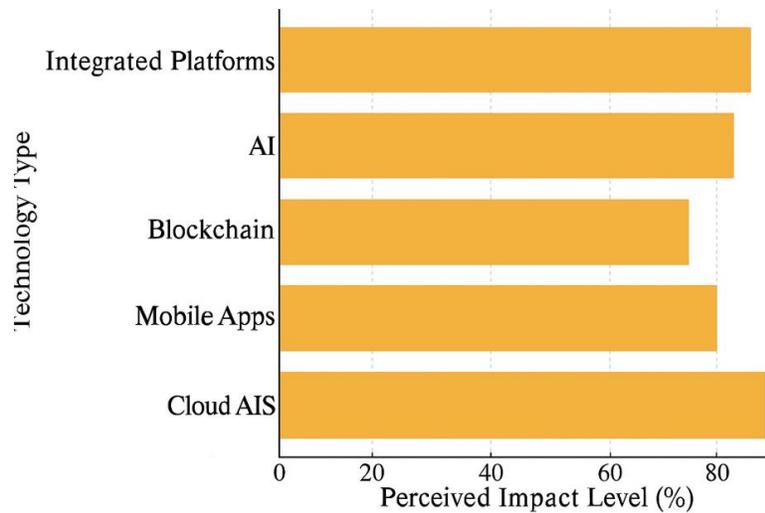


Fig 2. Impact of Technological Innovations on MSME Digital Integration Source: (H. Gupta & Barua, 2016; OECD, 2021; Singh, 2019; Tay et al., 2022)

Figure 2 illustrates the comparative impact levels of five major technological innovations—cloud-based AIS, mobile applications, blockchain technology, artificial intelligence (AI), and integrated platforms—on the digital integration of Micro, Small, and Medium Enterprises (MSMEs). The data synthesis indicates that these technologies collectively enhance MSME efficiency, transparency, and competitiveness in the post-pandemic business landscape.

The figure reveals that cloud-based AIS (90%) has the most substantial influence due to its ability to streamline accounting operations, enable real-time data processing, and support remote accessibility—an essential feature during periods of business disruption. Integrated platforms (88%), which connect AIS with CRM, ERP, and e-commerce systems, follow closely by creating a unified digital ecosystem that improves coordination and decision-making.

Artificial Intelligence (85%) plays an emerging role by automating financial forecasting, identifying risk patterns, and providing predictive insights that enhance managerial agility. Mobile applications (80%) contribute to improved decision-making speed by offering accessibility and convenience for MSME owners managing financial tasks on the go. Meanwhile, blockchain technology (75%)—though relatively new—strengthens transaction transparency and reduces fraud risk through decentralized verification mechanisms.

Overall, the figure underscores that technological innovations embedded within AIS function as both operational and strategic enablers. They not only modernize MSME accounting systems but also act as catalysts for sustainable digital transformation and long-term resilience in the post-pandemic era.

3.3. Challenges and Barriers to AIS Implementation

Despite the recognized benefits of Accounting Information Systems (AIS) for MSME performance enhancement, numerous challenges and barriers hinder their successful implementation—particularly in the context of post-pandemic recovery (Eldodo Saeed & Hamdan, 2025). Findings from the reviewed literature reveal that these obstacles can be grouped into three main categories: technical limitations, organizational constraints, and human resource challenges.

The first challenge concerns technical and infrastructure limitations, especially among MSMEs operating in developing regions. Many enterprises lack access to reliable internet connectivity, adequate hardware, and data security systems required to support cloud-based AIS. As noted by literatures, this digital divide continues to slow down the diffusion of accounting technologies, leading to uneven adoption across sectors.

The second barrier is organizational and financial constraints. Implementing AIS often demands substantial investment in software licenses, system customization, and ongoing maintenance costs that are difficult for small businesses with limited financial capacity. Furthermore, weak internal governance and lack of managerial commitment often result in underutilization of the system’s full capabilities (Boufounou et al., 2024).

The third and perhaps most persistent issue is human resource readiness. Many MSME owners and staff possess low levels of digital literacy and technical expertise, leading to errors in system usage and poor data management (Naayif et al., 2025). Training and change management are often overlooked during implementation, which undermines system sustainability.

In summary, the successful adoption of AIS among MSMEs requires not only technological readiness but also institutional support, capacity building, and policy frameworks that reduce cost barriers and promote digital inclusion. Addressing these challenges is essential for ensuring that AIS serves as an effective driver of long-term MSME competitiveness and sustainability.

Table 4 presents the main challenges faced by MSMEs in implementing Accounting Information Systems (AIS) effectively. The summarized findings reveal that technical and human resource limitations are the most frequently cited barriers, followed by financial constraints and weak digital governance, all of which affect the overall success of digital transformation initiatives.

Table 4. Key Challenges and Barriers to AIS Implementation in MSMEs Source: (Alharasis, 2025; Kumawat, n.d.; Lutfi et al., 2022; OECD, 2021)

Category	Description	Impact on MSMEs
Technical Limitations	Lack of reliable internet, hardware, and data security infrastructure.	Slows system adoption and limits remote access capabilities.
Organizational Constraints	Limited financial resources and weak internal governance structures.	Restricts investment in AIS and reduces system optimization.
Human Resource Readiness	Low digital literacy and limited staff training in system use.	Leads to data errors, poor adoption, and underutilization of AIS features.
Policy and Regulatory Gaps	Lack of government incentives or digitalization frameworks for MSMEs.	Creates uncertainty and reduces motivation for AIS implementation.
Change Management Resistance	Reluctance of management and employees to adopt new technologies.	Slows down digital transformation and reduces system effectiveness.

Table 4 presents a detailed summary of the main challenges and barriers that hinder the effective implementation of Accounting Information Systems (AIS) within Micro, Small, and Medium Enterprises (MSMEs). The table categorizes these barriers into five primary dimensions: technical limitations, organizational constraints, human resource readiness, policy and regulatory gaps, and change management resistance. Each of these dimensions contributes uniquely to the slow adoption and underperformance of AIS in MSMEs, particularly in developing economies.

The first dimension, technical limitations, includes issues such as poor internet connectivity, insufficient hardware, and weak cybersecurity frameworks, which collectively restrict the operational functionality of cloud-based AIS. Organizational constraints, such as limited financial capacity and weak internal governance, prevent MSMEs from investing in high-quality systems or sustaining long-term maintenance and upgrades.

Meanwhile, human resource readiness emerges as a critical factor. Many MSME owners and employees lack adequate digital literacy and training, resulting in errors, low system utilization, and dependency on manual processes. Policy and regulatory gaps further complicate adoption, as inadequate government support and unclear digitalization frameworks create uncertainty among business owners. Lastly, change management resistance stemming from a reluctance to adopt new technologies slows down the digital transition process and reduces the potential benefits of AIS implementation.

Overall, the table emphasizes that overcoming these challenges requires a comprehensive strategy that combines technological infrastructure, human capacity development, financial support, and enabling policy frameworks to ensure sustainable and inclusive AIS adoption across MSMEs.

As depicted in Figure 3, the majority of studies emphasize three dominant barriers to AIS implementation technical (85%), human resource (82%), and organizational (78%) challenges. These findings suggest that MSME digital transformation efforts are more constrained by internal capacity and technological readiness than by external policy factors.

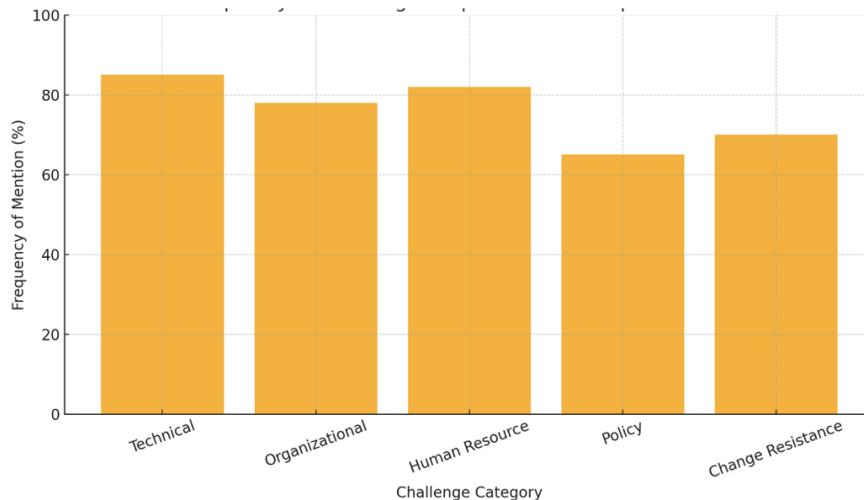


Figure 3. Frequency of Challenges Reported in AIS Implementation Studies Source: (Liu & Vasarhelyi, 2014; Lutfi et al., 2022; OECD, 2021)

Figure 3 provides a visual representation of the relative frequency of challenges identified in the reviewed studies concerning the implementation of Accounting Information Systems (AIS) within Micro, Small, and Medium Enterprises (MSMEs). The data indicate that the most frequently reported obstacles are technical limitations (85%), human resource readiness (82%), and organizational constraints (78%), followed by change management resistance (70%) and policy and regulatory gaps (65%).

The dominance of technical challenges underscores the persistent digital infrastructure gap among MSMEs, particularly in developing economies. Limited access to reliable internet, outdated hardware, and insufficient cybersecurity measures hinder the effective deployment of cloud-based AIS. Similarly, human resource readiness emerges as a major barrier; many MSME owners and employees lack the digital skills and accounting literacy required to operate AIS efficiently, resulting in underutilization and data management errors.

Organizational and financial constraints—such as inadequate budgets, weak governance, and lack of managerial commitment—further limit the sustainability of AIS implementation. Meanwhile, policy and regulatory challenges highlight the need for stronger government incentives and clearer digitalization frameworks to encourage technology adoption.

Overall, the figure emphasizes that the success of AIS adoption depends on addressing these interrelated challenges through a balanced approach that combines technological readiness, human capacity development, and institutional support. Strengthening these dimensions is crucial for building MSME resilience and ensuring sustainable digital transformation in the post-pandemic economy.

3.4. Research Gaps and Future Directions

The review of existing literature reveals that while significant progress has been made in understanding the role of Accounting Information Systems (AIS) in enhancing MSME performance, several important research gaps remain. These gaps highlight areas where further empirical and theoretical exploration is required to

strengthen the integration of AIS with MSME digital transformation, sustainability, and long-term competitiveness.

First, there is a methodological gap in the current body of literature. Most prior studies employ cross-sectional or descriptive survey designs, which limit the ability to capture dynamic, longitudinal effects of AIS adoption on MSME growth over time. Future research should employ longitudinal and mixed-method approaches that integrate qualitative insights and quantitative data to better understand behavioral and strategic adaptation processes in MSMEs. Second, there exists a contextual gap concerning developing economies, particularly in Southeast Asia and Sub-Saharan Africa. Much of the existing research focuses on developed markets, leaving a lack of comprehensive evidence about how local infrastructure, cultural factors, and institutional support influence AIS implementation in small businesses. Addressing this gap requires more region-specific and comparative analyses. Third, a technological integration gap persists, as limited studies explore how emerging technologies—such as artificial intelligence (AI), blockchain, and big data analytics—can be embedded into AIS frameworks for predictive financial management and environmental sustainability reporting. Finally, future research should also focus on policy and capacity-building frameworks that enable MSMEs to overcome barriers in AIS adoption. This includes examining the role of government incentives, digital literacy programs, and collaborative partnerships with fintech providers.

In conclusion, addressing these gaps will not only deepen theoretical understanding but also support the development of evidence-based policies and digital ecosystems that enhance MSME resilience and innovation in the post-pandemic economy.

Table 5 presents a consolidated summary of research gaps derived from the systematic review and proposes potential directions for future studies. These insights are intended to guide researchers in exploring underrepresented areas of AIS implementation and its implications for MSME digital transformation.

Table 5. Summary of Identified Research Gaps and Future Research Agenda

Research Gap	Description	Suggested Future Research Directions
Methodological Gap	Most studies use cross-sectional approaches, lacking longitudinal perspectives.	Adopt mixed-method and longitudinal studies to capture dynamic AIS impacts on MSMEs.
Contextual Gap	Limited evidence from developing countries and cultural contexts.	Conduct region-specific and cross-country comparative studies in emerging markets.
Technological Integration Gap	Insufficient exploration of AI, blockchain, and big data in AIS frameworks.	Investigate the integration of advanced digital tools into AIS for predictive analytics.
Policy and Institutional Gap	Lack of supportive policy frameworks and institutional incentives for digital adoption.	Examine the role of government programs, tax incentives, and MSME digitalization policies.
Human Capital Gap	Limited research on digital literacy and skills training for MSME actors.	Explore education-based interventions and training programs to enhance AIS utilization.

Table 5 provides a synthesized summary of the main research gaps identified from the systematic review of literature on Accounting Information Systems (AIS) and their role in enhancing MSME performance post-pandemic. The table outlines five key dimensions methodological, contextual, technological integration, policy and institutional, and human capital along with proposed directions for future studies to address these limitations.

The first dimension, methodological gap, highlights the overreliance on cross-sectional and descriptive approaches in prior research. This limits the understanding of long-term and behavioral impacts of AIS adoption. Future research should adopt longitudinal or mixed-method designs to capture dynamic interactions between technology, strategy, and performance outcomes.

The contextual gap refers to the lack of research in developing and emerging economies, where socio-cultural, institutional, and infrastructural differences significantly affect AIS implementation. Comparative studies across regions and industries would provide a more inclusive understanding of AIS effectiveness.

The technological integration gap focuses on the limited exploration of emerging digital technologies such as artificial intelligence (AI), blockchain, and big data analytics—within AIS frameworks. These technologies hold potential for enhancing predictive analytics and sustainability reporting.

Meanwhile, the policy and institutional gap points to weak government incentives and digitalization frameworks that fail to encourage MSME adoption. Finally, the human capital gap reflects insufficient research on digital literacy, capacity building, and user training, which are essential for sustainable AIS utilization. Overall, Table 4 emphasizes the need for a multidisciplinary and multi-contextual research approach to advance the theoretical and practical development of AIS in supporting MSME transformation and resilience in the digital era

4. Conclusions

This systematic literature review (SLR) has synthesized current research on the role of Accounting Information Systems (AIS) in improving the performance, resilience, and digital transformation of Micro, Small, and Medium Enterprises (MSMEs) in the post-pandemic era. The findings indicate that AIS plays a central role in supporting MSMEs' recovery and sustainability by enhancing financial accuracy, decision-making efficiency, and operational transparency. Through technological integration—particularly cloud-based systems, mobile accounting, and AI-driven analytics—AIS enables MSMEs to adapt to rapid market changes while maintaining competitiveness.

However, the review also reveals several persistent challenges that hinder effective AIS implementation. These include technical limitations (such as unreliable infrastructure), financial constraints, low digital literacy, weak policy support, and resistance to technological change. These barriers highlight the importance of adopting a multi-dimensional strategy that combines technological readiness, human capital development, and institutional incentives to ensure the sustainable use of AIS across MSMEs.

The study identifies significant research gaps, particularly in the methodological, contextual, and technological dimensions. Most prior studies focus on developed markets and employ cross-sectional designs, limiting the understanding of long-term effects and contextual differences. Future research should therefore explore longitudinal analyses, comparative studies in developing regions, and integration of emerging technologies such as AI, blockchain, and big data within AIS frameworks.

In summary, AIS is not merely an accounting tool—it has become a strategic enabler for MSME digital transformation, resilience, and sustainability in the post-pandemic economy. Strengthening collaboration between governments, academia, and industry will be critical in fostering innovation ecosystems that empower MSMEs to thrive in the digital age.

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