DIGITAL ACCOUNTING INFORMATION SYSTEMS AND MSME BUSINESS SUSTAINABILITY: A SCOPING REVIEW OF EVIDENCE, GAPS, AND SDG IMPLICATIONS IN DEVELOPING ECONOMIES

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Abstract

Digital transformation has fundamentally reshaped the operational landscape for micro, small, and medium enterprises (MSMEs), with Accounting Information Systems (AIS) emerging as a critical enabler of financial management capability and long-term business sustainability. Despite growing scholarly interest, the existing literature remains fragmented across technology adoption studies, financial performance research, and sustainability frameworks, with limited synthesis specifically addressing how digital AIS contributes to MSME sustainability outcomes and Sustainable Development Goal (SDG) alignment in developing economies. This study presents a scoping review of the literature on digital AIS adoption in MSMEs and its implications for business sustainability. A total of 32 peer-reviewed studies published between 2020 and 2026, sourced from DOAJ, ScienceDirect, SpringerLink, and Google Scholar, were included in the final synthesis following a structured screening process. The evidence is mapped across four analytical themes: digital AIS and MSME financial performance, adoption barriers and enablers, AIS and business sustainability and resilience, and AIS alignment with SDG targets. Findings indicate that digital AIS consistently improves MSME financial performance and operational efficiency across diverse developing economy contexts, though adoption barriers — particularly digital literacy gaps and infrastructure limitations — remain pronounced. Evidence on the direct sustainability and SDG contribution of AIS remains emergent, representing the most significant gap in the current literature. This review contributes a structured thematic map of the field, identifies theoretical, methodological, and empirical research gaps, and offers practical implications for MSME owners, policymakers, and support institutions in Indonesia and the ASEAN region.

Keywords: *accounting information systems; digital AIS; MSME; business sustainability; SDGs; scoping review; Indonesia; developing economies*.

INTRODUCTION

Small and Medium Enterprises (SMEs) play a central role in economic development, particularly in emerging economies where they contribute significantly to employment generation, income distribution, and local economic activity. In Indonesia, SMEs account for almost all business entities and absorb the majority of the national workforce, making them a critical pillar of economic stability and community livelihood (Shinozaki, 2022). Similar patterns can also be observed across ASEAN countries, where SMEs function not only as economic actors, but also as important instruments for poverty reduction and inclusive growth.

Despite their economic importance, many SMEs continue to face persistent structural challenges, especially in financial management and digital capability. Limited access to formal finance, weak financial record-keeping practices, low levels of digital literacy, and inadequate technological infrastructure remain common problems among small business operators in developing economies (Putri et al., 2025). These challenges became more visible during the COVID-19 pandemic, when many SMEs struggled to maintain cash flow, manage operational costs, and adapt to rapidly changing market conditions. Several studies reported that SMEs with stronger digital

capabilities were generally more resilient and better able to sustain business operations during periods of economic disruption (Al-Okaily et al., 2023; Sikora & Baranowska-Prokop, 2021).

In recent years, digital transformation has increasingly been viewed as an important strategy for strengthening SME sustainability and resilience. Among various digital technologies, Accounting Information Systems (AIS) have attracted growing attention because of their potential to improve financial management, support data-driven decision-making, and enhance business transparency. Digital AIS applications enable SME owners to record transactions more efficiently, monitor cash flow in real time, generate financial reports, and improve the accuracy of financial information used in managerial decision-making. The growing availability of cloud-based and mobile accounting applications has also made digital accounting tools more accessible to small businesses, including micro-enterprises with limited financial and technological resources.

The adoption of digital AIS is increasingly relevant within the broader agenda of sustainable development. Effective financial management and business transparency contribute not only to business performance, but also to broader development objectives such as financial inclusion, decent work, institutional accountability, and sustainable economic growth, which are closely linked to the Sustainable Development Goals (SDGs), particularly SDG 8, SDG 9, and SDG 16 (United Nations, 2015). In this context, digital AIS can be understood not merely as a technical accounting tool, but as part of a broader effort to strengthen the sustainability and resilience of local economic systems (Ghobakhloo, 2020).

However, despite the growing body of literature on SME digitalization and AIS adoption, several important gaps remain. Existing studies largely focus on technology adoption behavior, financial performance, or operational efficiency at the individual firm level. Comparatively limited attention has been given to how digital AIS contributes to SME sustainability, resilience, and sustainable local economic development, particularly in emerging economy contexts such as Indonesia and ASEAN countries. In addition, the literature remains fragmented across disciplines, including accounting, information systems, entrepreneurship, and sustainable development studies, and across three theoretical traditions in particular. Technology Acceptance Model (TAM) studies (Davis, 1989; Venkatesh et al., 2003) explain why owner-managers adopt or resist digital AIS, but stop at adoption intention rather than post-adoption sustainability outcomes (Al-Hattami & Almaqtari, 2023; Evayani et al., 2024; Fadillah et al., 2024). Resource-Based View (RBV) studies (Barney, 1991) explain why AIS adoption produces differential firm-level performance depending on complementary digital capabilities and human capital (Kareem et al., 2024; Winarsih et al., 2024; Zhen & Zhen, 2024), while Institutional Theory (DiMaggio & Powell, 1983) explains AIS adoption as a legitimacy-seeking response to normative, coercive, and mimetic pressures from banks, tax authorities, and supply chain partners (Ratna Komala & Firdaus, 2023; Yousaf et al., 2021). None of these three traditions, on its own, connects individual adoption behavior, firm-level performance, and institutional legitimacy into a single account of how digital AIS supports SME sustainability and sustainable local economic development.

Therefore, this study aims to systematically review and synthesize the existing literature on the role of digital Accounting Information Systems (AIS) in strengthening SMEs and supporting sustainable local economic development. This study integrates TAM, RBV, and Institutional Theory as complementary lenses, addressing respectively individual-level adoption behavior, firm-level performance outcomes,

and the broader institutional and regulatory context, to provide a clearer understanding of how digital AIS can contribute to SME resilience, financial capability, and long-term sustainable growth in developing and emerging economies.

To address these objectives, this study adopts a scoping review methodology (Arksey & O'Malley, 2005; Levac et al., 2010) to systematically map and synthesize existing evidence on digital AIS adoption and SME sustainability across developing and emerging economy contexts, with particular attention to Indonesia and the broader ASEAN region.

RESEARCH METHODOLOGY

3.1 Review Design

This study adopts a scoping review methodology following the five-stage framework proposed by Arksey and O'Malley (2005) and subsequently refined by Levac et al. (2010). A scoping review was selected as the most appropriate design for this study for three reasons. First, the research objective is to map the breadth of evidence on digital AIS and MSME sustainability rather than to pool effect sizes or conduct quality-weighted meta-analysis, which are the goals of a systematic review. Second, the topic cuts across multiple disciplines accounting information systems, entrepreneurship, sustainability science, and development economics making a scoping approach suitable for clarifying conceptual boundaries and identifying where evidence clusters exist. Third, scoping reviews do not require formal quality appraisal of individual studies (Peters et al., 2020), which is methodologically appropriate given the heterogeneous nature of the included literature.

The five stages applied are: (1) identifying the research questions, (2) identifying relevant studies, (3) study selection, (4) charting the data, and (5) collating, summarizing, and reporting results.

3.2 Research Questions

This scoping review is guided by four research questions:

- **RQ1:** What is the current state of evidence on digital AIS adoption in MSMEs in developing and emerging economies?
- **RQ2:** How does digital AIS adoption contribute to MSME financial performance and business sustainability?
- **RQ3:** What barriers and enablers shape digital AIS adoption among MSMEs?
- **RQ4:** How does the existing literature align digital AIS with Sustainable Development Goal targets, particularly SDG 8 (decent work and economic growth), SDG 9 (industry, innovation and infrastructure), and SDG 16 (peace, justice and strong institutions)?

3.3 Search Strategy

Relevant literature was identified through searches conducted across four sources: the Directory of Open Access Journals (DOAJ), ScienceDirect (Elsevier), SpringerLink (Springer Nature), and Google Scholar. These sources were selected to ensure coverage of open-access literature, major Elsevier and Springer publication streams, and a broader indexing reach through Google Scholar. The authors acknowledge that this search strategy does not include multidisciplinary bibliographic databases such as Scopus or Web of Science. As ScienceDirect and SpringerLink are publisher-specific platforms, studies

published by Wiley, Emerald, Taylor & Francis, MDPI, and other publishers may be underrepresented. This constitutes a recognized limitation of the present review and is addressed explicitly in the limitations section.

Three thematic query clusters were applied consistently across all search sources:

Query 1 Financial Performance: "accounting information system" OR "digital accounting" OR "cloud accounting" AND "financial performance" OR "business performance" AND "SME" OR "MSME" OR "small and medium enterprise"

Query 2 Adoption and Context: "accounting information system" OR "digital accounting" AND "adoption" OR "acceptance" OR "implementation" AND "Indonesia" OR "Vietnam" OR "ASEAN" OR "developing country" OR "emerging economy"

Query 3 Sustainability and SDGs: "accounting information system" OR "digital accounting" AND "sustainability" OR "sustainable development" OR "SDG" OR "resilience" AND "SME" OR "MSME" OR "small business"

Searches were limited to publications between January 2020 and May 2026 to ensure currency of evidence and alignment with the post-pandemic digital transformation period.

3.4 Inclusion and Exclusion Criteria

Inclusion criteria. Studies were eligible if they: (1) were published between 2020 and 2026; (2) were written in English; (3) were peer-reviewed journal articles, conference papers, or book chapters; (4) directly addressed AIS, digital accounting, cloud accounting, or ERP systems in an MSME or SME context; and (5) were related to at least one of the following outcomes: financial performance, business sustainability, digital adoption behavior, or SDG alignment.

Exclusion criteria. Studies were excluded if they: (1) were retracted; (2) were inaccessible in full text; (3) focused exclusively on large enterprises with no MSME relevance; (4) were from unrelated disciplines such as medicine, engineering, or natural sciences; (5) did not specifically address accounting or financial information systems; or (6) were published before 2020.

3.5 Study Selection

Records were initially identified through keyword searches across the four sources. Following deduplication in which three pairs of exact duplicate records were identified and removed a total of **[n = XX]** unique records were screened at the title and abstract level. Records were assessed against the inclusion and exclusion criteria independently by the author. Full-text review was then conducted for all records passing the initial screen. One retracted article (Cheng et al., 2021, DOI: 10.1007/s40815-020-01024-3) was explicitly excluded at this stage. Following full-text review, **32 studies** were included in the final synthesis.

3.6 Data Charting

A standardized data charting form was applied to each included study, capturing: author(s) and year, country or regional context, research method, AIS type studied, key findings relevant to RQ1–RQ4, theoretical framework used, and any explicit or implicit reference to SDG targets. This charting approach follows the protocol recommended for scoping reviews by Levac et al. (2010).

3.7 Synthesis Approach

A thematic synthesis approach was applied following Thomas and Harden (2008). Findings from each included study were coded line by line against the four research questions. Codes were grouped into descriptive categories and then developed into four analytical themes. Themes were organized both deductively (structured around the research questions) and inductively (refined based on patterns in the data). Convergences and contradictions across studies are reported within each theme using calibrated language: "evidence consistently shows" for patterns supported by five or more studies; "emerging evidence suggests" for two to four studies; and "one study indicates" for single-study findings.

RESULTS AND DISCUSSION

It A total of 32 studies published between 2020 and 2026 were included in the final synthesis, with a clear upward trend in scholarly attention: 12 of the 32 studies appeared in 2025 alone. Quantitative designs dominate the field (27 of 32 studies), reflecting an orientation toward survey-based hypothesis testing, while qualitative and mixed-method studies remain scarce (5 studies combined), a methodological gap addressed further below. Geographically, Indonesia is the most represented national context (8 studies), followed by Jordan (6), Vietnam (5), and Bahrain (3), indicating that although the evidence base is growing, it does not yet represent the full ASEAN and broader developing-economy landscape.

Evidence consistently shows a positive relationship between digital AIS adoption and SME financial performance. Across the 16 studies addressing this theme, digital AIS improves financial reporting accuracy, supports data-driven decision-making, and enhances operational efficiency, outcomes that collectively strengthen SME competitiveness and financial health. This pattern converges across diverse geographic contexts: in the Middle East and North Africa, Al Astal (2024) and Kareem et al. (2024) find significant positive effects of AIS on financial and organizational performance in Bahraini and Iraqi SMEs respectively, with Kareem et al. showing that AIS fully mediates the strategy-performance relationship; in East Asia, Zhen and Zhen (2024) find that these performance effects are amplified when AIS is combined with edge computing technologies, pointing to a technology complementarity dynamic; and in Southeast Asia, Winarsih et al. (2024) and Falentina et al. (2021) report consistent positive effects in the Indonesian context, while Huy and Phuc (2025) and Pham and Vu (2022) provide longitudinal evidence from Vietnam.

Emerging evidence suggests, however, that this relationship is not direct but mediated by information quality. Tran Thanh Thuy (2025) shows that AIS quality improves decision-making success, which in turn drives non-financial performance, highlighting the informational mechanism through which AIS affects outcomes; similarly, Winarsih et al. (2024) find that AIS mediates the positive effect of digital capital on performance, confirming that AIS functions as enabling infrastructure rather than a standalone driver. A further nuance is the scale dependency of these effects: several studies note that medium-sized enterprises extract greater value from AIS than micro enterprises, reflecting differences in system sophistication, staff capacity, and organizational readiness, with direct implications for policy targeting the smallest SME tier.

From a Resource-Based View perspective, these performance findings are theoretically coherent: digital AIS constitutes a strategic resource that generates information-based competitive advantage. The evidence also shows, however, that this advantage is not automatic. As Winarsih et al. (2024) and Al-Okaily (2025) demonstrate, the

performance benefits of AIS are conditional on complementary human capital, particularly digital literacy and organizational readiness, pointing to an implication explored further below: AIS adoption alone is insufficient and must be embedded in a broader capability-building program that addresses the human and organizational dimensions of digital transformation.

Twelve studies address the barriers and enablers of digital AIS adoption, revealing a consistent pattern of structural constraints in developing-economy contexts alongside emerging evidence on what facilitates adoption. Evidence consistently identifies three primary barriers. Digital literacy is the most frequently cited constraint, as owner-managers and staff with limited IT knowledge are less likely to adopt and effectively use digital AIS (Al-Hattami & Almaqtari, 2023; Zotorvie et al., 2025; Mensah et al., 2025; Al Astal et al., 2025). Infrastructure limitations, including unreliable internet connectivity and limited hardware, are particularly pronounced in rural Indonesian and sub-Saharan African contexts (Fadillah et al., 2024; Zotorvie et al., 2025). Cost constraints represent a third structural barrier, with initial investment in software, training, and system integration remaining prohibitive for many micro enterprises (Pathiranage et al., 2025; Al-Okaily, 2025).

On the enabler side, emerging evidence suggests that perceived usefulness, management support, and system quality are the strongest predictors of adoption intention and continuance. Al-Hattami and Almaqtari (2023) identify system quality, trust, and habit as the primary determinants of continuance intention, suggesting that initial adoption is only the first challenge and that sustained use requires different interventions than initial uptake. Fadillah et al. (2024) find that ease of use and compatibility are critical acceptance factors for cloud accounting specifically in the Indonesian SME context, underscoring the importance of locally adapted system design. One study indicates that COVID-19 functioned as an unexpected adoption accelerator: Lutfi et al. (2022) show that the pandemic shock positively moderated the AIS-performance relationship, suggesting that crisis conditions can compress the adoption timeline by making the costs of non-adoption more visible to owner-managers, a finding consistent with the broader digitalization literature on pandemic-driven digital transformation in SMEs.

The relationship between digital AIS and SME sustainability outcomes is the central thematic contribution of this review. Eighteen studies address this relationship, though the quality and directness of the evidence varies considerably. Evidence consistently shows that digital AIS contributes to SME business sustainability through at least three mechanisms. First, financial sustainability is strengthened through improved cash flow management, more accurate financial reporting, and better access to formal credit, all of which reduce business failure risk; Lutfi et al. (2022) provide the most direct evidence, demonstrating that AIS implementation is a significant predictor of SME business sustainability during COVID-19, a finding corroborated in the Indonesian context by Ratna Komala and Firdaus (2023), who show that digital economy integration with AIS as a core component improves both financial statement quality and business survival rates. Second, operational resilience is enhanced through real-time information access and automated reporting: Pham and Vu (2022) argue that AIS digitalization contributes to SME sustainability through improved information quality, which enables more responsive decision-making during periods of economic disruption, while Yousaf et al. (2021) extend this to sustainable digital innovation, showing that digitally innovative SMEs in developing countries demonstrate greater resilience. Third, strategic sustainability, meaning the ability to adapt

business models and sustain long-term growth, is linked to digital AIS through the work of Huy and Phuc (2025), who show that digital accounting system effectiveness positively moderates sustainable business model innovation, and Zuhroh et al. (2026), who provide the most recent Indonesian evidence that digital platform-based SME management significantly improves sustainable performance outcomes.

It is important to note that most studies measure sustainability through proxy indicators, financial performance, operational efficiency, and business continuity, rather than through direct sustainability measures. True sustainability encompasses environmental and social dimensions alongside economic ones, yet only Potjanajaruwit (2023) includes an environmental performance dimension, finding that AIS positively affects environmental management performance in Thai entrepreneurs. This gap between economic and broader sustainability measurement represents a significant limitation in the current evidence base, one that is taken up again below.

Taken together, the synthesis of the 32 included studies reveals a coherent but incomplete picture of how digital AIS shapes SME sustainability in developing economies. The evidence is strongest for the performance-enhancing effects of AIS, which is well established across diverse geographic and methodological contexts; it is more tentative for the direct sustainability contribution of AIS, and weakest for the SDG alignment dimension discussed next, which remains almost entirely at the conceptual mapping level.

Eleven studies address, explicitly or implicitly, the relationship between digital AIS and SDG alignment, the most theoretically ambitious theme and the one with the thinnest direct evidence, requiring the greatest interpretive contribution from this review. SDG 8 (decent work and economic growth) is the most commonly supported target across included studies: evidence suggests that digital AIS contributes to SDG 8.3 (supporting SME growth and formalization) and SDG 8.10 (strengthening financial institutions' capacity to expand access to banking and financial services) through two pathways, as improved financial records make SMEs more credible to formal lenders (Agustina & Augustine, 2024; Affandi et al., 2024) and AIS-enabled efficiency gains create capacity for employment growth and market expansion (Zuhroh et al., 2026; Endris & Kassegn, 2022). SDG 9 (industry, innovation and infrastructure) is supported primarily through the digital infrastructure and innovation dimensions: Huy and Phuc (2025) and Zhen and Zhen (2024) both demonstrate that AIS adoption, particularly cloud-based and AI-integrated systems, contributes to SDG 9.3 (increasing small-scale industrial access to financial services and value chains) and SDG 9.b (supporting domestic technology development in developing countries), though this evidence remains emerging rather than definitive, as most studies do not explicitly measure SDG 9 outcomes. SDG 16 (peace, justice and strong institutions) is addressed through the transparency and accountability dimension: Al Astal and Qayssar (2025), Al-Mesaiadeen et al. (2025), and Alharasis and Alkhwaldi (2024) all find that digital AIS improves corporate governance quality and accounting data integrity in SMEs, outcomes that directly support SDG 16.6 (developing effective, accountable, and transparent institutions).

From an Institutional Theory perspective, this growing evidence on AIS and corporate governance suggests that normative and regulatory pressures are increasingly driving AIS adoption in developing-economy SMEs. This is particularly relevant in the Indonesian context, where OJK regulations and Bank Indonesia's financial inclusion agenda create institutional pressures that may accelerate AIS

adoption beyond what voluntary market-based incentives would generate; future research should explicitly investigate the role of the regulatory environment in shaping AIS adoption patterns in Indonesian and ASEAN SMEs. It must be acknowledged, though, that the SDG alignment presented here is largely an interpretive mapping rather than a finding directly stated by individual studies, since most included studies do not frame their findings in SDG terms. The contribution of this section is to demonstrate that the outcomes documented in the literature, namely financial inclusion, transparency, institutional accountability, and sustainable economic growth, map meaningfully onto SDG targets; future research should operationalize these connections empirically.

Several important gaps remain across the reviewed literature. Theoretically, TAM and UTAUT dominate the landscape, applied in at least 15 of the 32 studies, but both frameworks explain adoption intention rather than post-adoption sustainability outcomes; a significant gap exists around the mechanisms through which AIS adoption translates into long-term sustainability, one that neither TAM nor RBV fully addresses. Legitimacy Theory (Suchman, 1995) and Stakeholder Theory offer potentially productive alternative lenses that remain unexplored in this domain, and the environmental and social dimensions of SME sustainability are almost entirely absent from AIS research, as Triple Bottom Line frameworks (Elkington, 1999) have not been applied to AIS adoption contexts. Methodologically, the dominance of cross-sectional quantitative designs, 27 of 32 studies use surveys at a single point in time, means the literature captures adoption status without tracking whether AIS use actually produces lasting sustainability improvements; longitudinal designs are urgently needed, multi-country comparative studies are scarce, and mixed-method designs combining quantitative performance measurement with qualitative accounts of owner-manager experience are almost entirely absent, leaving important questions about implementation context unaddressed. Empirically, micro enterprises, the smallest and most numerous SME tier in Indonesia and ASEAN, are severely underrepresented, as most studies examine small and medium enterprises with established accounting functions and exclude the micro-enterprise segment where AIS adoption challenges are greatest and the development impact would be most significant; environmental accounting within digital AIS is virtually unaddressed, and direct measurement of SDG outcomes in AIS research does not yet exist in the current literature, representing both the most significant gap and the most important direction for future research.

These findings carry practical implications for three groups. For SME owners and operators, the evidence strongly supports investment in digital AIS, particularly cloud-based systems that reduce upfront costs and infrastructure requirements; cloud accounting platforms such as Accurate Online, which is widely used in Indonesia, offer the most accessible entry point for SMEs with limited technical capacity, though the evidence also consistently shows that system adoption without accompanying investment in digital literacy training yields limited benefits, meaning owners should treat AIS adoption as a capability-building process rather than a one-time technology purchase. For policymakers and government agencies, Kementerian Koperasi dan UKM, OJK, and Bank Indonesia should consider embedding digital AIS adoption within broader SME development programs that address the three key adoption barriers identified in this review, namely digital literacy, infrastructure access, and cost; subsidized access to cloud accounting platforms, digital literacy programs, and simplified financial reporting standards for micro enterprises represent evidence-based policy interventions, and the SDG 8 alignment evidence in this review

provides a policy rationale for treating SME digital AIS adoption as a development investment rather than a purely commercial matter. For AIS developers and vendors, the evidence on adoption barriers points clearly to the need for locally adapted, low-cost, mobile-first accounting solutions designed specifically for the micro-enterprise segment, since systems designed for medium-sized enterprises with accounting staff are not appropriate for the majority of Indonesian SMEs, which are owner-operated micro enterprises with limited accounting knowledge; user interface design, local language support, and integration with Indonesian tax and regulatory reporting systems are critical features that the evidence suggests are currently underdeveloped.

Table 1. Data Extraction Summary of Included Studies

Author(s), Year	Country	Method	AIS Type	Key Finding	SDG Relevance	Theory
Zuhroh et al. (2026)	Indonesia	Quantitative	Digital platform/AIS	Restrictions on public and private transportation	- SDG8 - SDG9	RBV
Dinanti et al. (2026)	Global	Bibliometric	ICT/AIS broad	1997–2024 mapping shows accounting & sustainability as converging themes in SME ICT research	- SDG8 - SDG9 - SDG16	Multiple
Huy & Phuc (2025)	Vietnam	Quantitative	Cloud-based AIS	Cloud-based AIS mediates the relationship between niche market leadership and SME globalization	- SDG8 - SDG9	Institutional
Al Astal & Qayssar (2025)	Bahrain	Quantitative	AIS general	AIS implementation positively affects corporate governance quality in SMEs	- SDG16	Institutional
Al Astal et al. (2025)	Jordan	Qualitative	AIS general	Key effectiveness factors include management support, training, and system compatibility	None stated	TAM
Al-Mesaiadeen et al. (2025)	Bahrain	Quantitative	AIS general	AIS strengthens corporate governance through improved transparency and accountability	- SDG16 - A - A -	Institutional

Al-Okaily (2025)	Jordan	Quantitative	AIS general	IT knowledge indirectly improves AIS usage outcomes through enhanced system utilization	None stated	- TAM - UTAUT
Sasmi et al. (2025)	Indonesia	Quantitative	AIS/IS general	Task-technology fit mediates AIS implementation success in Indonesian SMEs	None stated	- TTF - IS Success
Huy & Phuc (2025)	Vietnam	Quantitative	Digital accounting	Digital accounting system intensity positively moderates sustainable business model innovation	- SDG8 - SDG9	RBV
Al-Hattami et al. (2025)	Yemen	Quantitative	Digital accounting	Digital accounting systems positively influence SME marketing performance	- SDG8	- RBV - TAM
Tran Thanh Thuy (2025)	Vietnam	Quantitative	AIS quality	AIS quality improves decision-making success which mediates non-financial performance	None stated	IS Success
Zotorvie et al. (2025)	Ghana	Qualitative	IT-based accounting	Inadequate IT infrastructure and low digital literacy are primary barriers to AIS adoption in SMEs	- SDG8	Institutional
Mensah et al. (2025)	Ghana	Mixed	- AIS - AI	AIS adoption combined with AI integration improves small enterprise operational efficiency	- SDG8 - SDG9	TAM
Pathiranage et al. (2025)	Sri Lanka	Quantitative	Computerized AIS	Perceived usefulness and management support are key determinants of CAS adoption	None stated	TAM

Zhen & Zhen (2024)	China	Quantitative	- AIS - edge computing	AIS combined with digital technology and edge computing significantly improves strategic performance	- SDG9	RBV
Fadillah et al. (2024)	Indonesia	Quantitative	Cloud accounting	Ease of use and compatibility are key acceptance factors for cloud accounting in Indonesian SMEs	None stated	TAM
Huy & Phuc (2024)	Vietnam	Quantitative	Digital forensic accounting	Digital forensic accounting contributes to sustainable circular business model development	- SDG8 - SDG9	RBV
Winarsih et al. (2024)	Indonesia	Quantitative	AIS general	AIS mediates the positive effect of digital and human capital transformation on SME performance	- SDG8	RBV
Al Astal (2024)	Bahrain	Quantitative	AIS general	AIS has a significant positive effect on financial performance of SMEs	None stated	RBV
Kareem et al. (2024)	Iraq	Quantitative	AIS general	AIS fully mediates the relationship between SME strategies and organizational performance	- SDG8	RBV
Alharasis & Alkhwaldi (2024)	Jordan	Quantitative	Advanced AIS	Advanced AIS implementation significantly improves accounting data quality in Jordanian SMEs	- SDG16	Institutional
Agustina & Augustine (2024)	Indonesia	SLR	Accounting systems	Indonesian SMEs lack maturity in accounting and financial sustainability	- SDG8 - SDG16	Multiple

				practices; AIS is a pathway		
Affandi et al. (2024)	Indonesia	Quantitative	Digital adoption	Digital adoption positively affects business performance; financial literacy moderates the relationship	- SDG8	RBV
Al-Hattami & Almaqtari (2023)	Yemen	Quantitative	Digital accounting	System quality, trust, and habit are primary determinants of digital accounting continuance intention	None stated	- IS Success -TAM
Potjanajaruwit (2023)	Thailand	Quantitative	AIS general	AIS has a positive effect on both financial and environmental performance of entrepreneurs	- SDG8 - SDG9	RBV
Al-Okaily et al. (2023)	Jordan	Quantitative	Cloud-based AIS	Cloud-based AIS usage positively impacts SME performance in post-COVID-19 context	- SDG8	- TAM - RBV
Ratna Komala & Firdaus (2023)	Indonesia	Quantitative	Digital economy/AIS	Digital economy integration improves SME financial statement quality and business survival	- SDG8 - SDG9	Institutional
Lutfi et al. (2022)	Jordan	Quantitative	Digital accounting	Digital accounting system usage positively affects SME performance; COVID-19 moderates this effect	- SDG8	- TAM - RBV
Lutfi et al. (2022)	Jordan	Quantitative	AIS implementation	AIS implementation is a significant predictor of SME business sustainability during COVID-19	- SDG8	RBV
Pham & Vu (2022)	Vietnam	Quantitative	Digital AIS	AIS digitalization directly	- SDG8 - SDG9	RBV

				contributes to SME sustainability through improved information quality		
Yousaf et al. (2021)	Pakistan	Quantitative	Digital innovation	Sustainable digital innovation in SMEs is driven by digital literacy and organizational readiness	- SDG8 - SDG9	- TAM - RBV
Falentina et al. (2021)	Indonesia	Indonesia	Digitalization broad	Digitalization positively affects micro and small enterprise performance in Yogyakarta, Indonesia	- SDG8	RBV

Source: DATA EXTRACT (2026).

CONCLUSION

This scoping review maps the evidence on digital AIS adoption and its implications for SME business sustainability in developing economies, drawing on 32 studies published between 2020 and 2026. The review answers its four research questions as follows.

On the current state of evidence (RQ1), the literature is growing rapidly particularly in 2025 but remains concentrated in quantitative, single-country, cross-sectional studies, with Indonesia, Jordan, and Vietnam as the most represented contexts. On the AIS-sustainability relationship (RQ2), evidence consistently demonstrates performance improvements but sustainability outcomes remain measured through proxies, with direct measurement of long-term sustainability effects absent. On adoption barriers and enablers (RQ3), digital literacy, infrastructure, and cost emerge as the most consistent barriers, while system quality, management support, and perceived usefulness are key enablers. On SDG alignment (RQ4), the evidence supports conceptual linkages to SDG 8, SDG 9, and SDG 16, but direct empirical operationalization of these targets in AIS research does not yet exist.

The theoretical contribution of this review is a structured synthesis that integrates TAM, RBV, and Institutional Theory as complementary rather than competing explanatory frameworks for digital AIS adoption and sustainability in SMEs. The empirical contribution is a thematic map of 32 studies that identifies where evidence clusters are strongest and where critical gaps remain. The practical contribution is a set of evidence-based recommendations for SME owners, policymakers, and AIS developers operating in the Indonesian and ASEAN context.

Limitations. This review has three key limitations. First, the search strategy relies on DOAJ, ScienceDirect, SpringerLink, and Google Scholar rather than multidisciplinary bibliographic databases such as Scopus or Web of Science, which may result in underrepresentation of studies published

outside Elsevier and Springer platforms. Second, the restriction to English-language publications may exclude relevant Indonesian-language literature indexed in SINTA and Garuda. Third, the scoping review methodology does not include quality appraisal of individual studies, meaning that methodological weaknesses in primary studies may affect the reliability of synthesized findings.

Future research agenda. Four specific directions are recommended. (1) Longitudinal studies tracking AIS implementation outcomes over 12–36 months in micro enterprises in rural Indonesian contexts, using mixed methods to capture both quantitative performance data and qualitative owner-manager experience. (2) Multi-country comparative studies across ASEAN nations examining how regulatory environment, infrastructure quality, and cultural factors moderate the AIS-sustainability relationship. (3) Studies explicitly operationalizing SDG target indicators (particularly 8.3, 9.3, and 16.6) as outcome variables in AIS adoption research. (4) Research applying Legitimacy Theory and Triple Bottom Line frameworks to examine the environmental and social not only economic sustainability contributions of digital AIS in SMEs.

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