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FINANCE | RESEARCH ARTICLE

Implementation of Accounting Information Systems in SME: A Systematic Literature Review

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Abstract: This study aims to analyze the implementation of Accounting Information Systems (AIS) in Micro, Small, and Medium Enterprises (SMEs) in Indonesia using the Systematic Literature Review (SLR) approach. AIS is important in improving operational efficiency, transparency, and accuracy of MSME financial data, which ultimately supports strategic decision-making and business competitiveness. However, implementing AIS in SMEs faces various challenges, such as low financial literacy, limited access to technology, and difficulties in integrating new systems with existing business practices. This study identifies key factors in AIS implementation, including the type of system used, the role of stakeholders, perceived benefits, and integration of AIS with other systems. The results show that successful AIS implementation depends on understanding local needs, access to formal financing, and social support. With the growing digitalization, SMEs have an excellent opportunity to improve their performance through proper AIS adoption. The findings of this study are expected to serve as a strategic guide for the future development of SMEs.

Keywords: Accounting Information Systems, SME, Digitalization, Business Sustainability

JEL Classification Code: M41, I23, J24

1. INTRODUCTION

Businesses that are currently experiencing relatively rapid development are small and medium-scale businesses, commonly known as micro, small, and medium enterprises (SMEs). Micro, Small, and Medium Enterprises (SMEs) are businesses created and designed by individuals or entities owned by individuals who meet the criteria as micro businesses regulated in Law Number 20 of 2008 concerning Micro Small and Medium Enterprises. In daily life, SMEs do not escape the daily life of the Indonesian people. SMEs are where people can express their creativity while simultaneously running a business.

In today's digital age, all businesses are faced with using information systems in every business activity. Information systems combine work procedures, information, people (humans), and technology to organize activity goals. So, the information system is a system that cannot be separated between one element and another in achieving goals, so reaching it becomes information that is the basis for a measurable activity plan (action). Information Systems are essential in securing competitive advantage through innovation (Arvanitis et al., 2013). With the intensive application of advanced technology and given the current speed of transformation, innovation is an important strategic component for a competitive advantage for a business. In other words, applying information systems in the business world will benefit businesses in ways such as ease of marketing products, efficiency of internal business activities, etc.

However, when viewed in the field, it is found that there is still a lack of businesses or business actors who implement information systems in business activities, especially Micro, Small, and Medium Enterprises. One of the reasons why MSME actors rarely apply the use of information systems in their business is because SMEs play an important role in economic growth, especially in

Indonesia, so SMEs are deemed necessary to be empowered and developed; in this case, the development of the use of technology in SME. Understanding technology and information systems has a positive effect on the performance of SMEs and will have an impact on improving overall performance and controlling good business processes. This study will explain how this accounting information system can be applied in micro, small, and medium enterprises (SMEs) and the challenges SMEs face in implementing accounting information systems.

Micro, small, and medium enterprises (SMEs) are important in creating positive impacts for communities facing conflict, such as Langa. In this context, SMEs are often seen as drivers of economic regeneration through job creation and reinvestment in local communities. However, business initiatives undertaken without considering complex social dynamics can exacerbate tensions and conflict. For example, platforms such as the Langa Development Forum, initially designed to improve business conditions and increase social cohesion, have instead reinforced social divisions due to competition over limited resources. This suggests that inter-MFI collaboration must be carefully planned to avoid behavior based on specific group interests that hinder mutual progress (Cechvala & Ganson, 2024). In implementing accounting information systems (AIS) in SMEs, understanding the social and economic context in which SMEs operate is very important. Based on a study by Cechvala and Ganson (2024), micro, small, and medium enterprises often play an important role in building social and economic stability, especially in conflict dynamics. However, the success of such initiatives largely depends on the extent to which the systems implemented can adapt to local needs and conditions. In this case, AIS serves not only as a financial management tool but also as a means to create transparency, strengthen relationships between stakeholders, and mitigate potential conflicts due to unequal distribution of resources. Therefore, implementing AIS in SMEs must be designed contextually, considering social dynamics and interactions between actors, to ensure the system supports business sustainability and community growth.

SMEs in Indonesia face various internal challenges, such as low financial literacy, limited access to capital, and lack of internal control systems and risk management implementation. This can hinder business performance and sustainability, especially in managing financial data not entirely by applicable accounting standards (Ulupui et al., 2024). These challenges indicate the need to implement accounting information systems (AIS) in SMEs to improve financial literacy, data management efficiency, and transparency of financial reports. By adopting AIS-based technology, SMEs can overcome these barriers by improving the accuracy of financial data and providing better information for strategic decision-making. In addition, implementing CIS also supports more effective risk management, strengthening business sustainability and MSME competitiveness in the face of an increasingly dynamic market.

Access to finance plays an important role in improving the performance of SMEs, especially in developing countries, as it enables investment in technological improvements, productivity, and operational expansion (Kumarasamy et al., 2024). In the context of implementing Accounting Information Systems (AIS) in SMEs, access to formal financing is a crucial element to support the implementation of such systems. SMEs with access to formal financing can increase labor productivity, adopt new technologies, and expand their business operations. AIS implementation requires significant initial investment, including software, team member training, and business process adjustments. Therefore, access to formal financing strengthens business sustainability and helps SMEs achieve higher competitiveness in an increasingly competitive market. However, SMEs' main challenges, especially in developing countries, are access to formal financing and inadequate financial data management. A study (by Bongomin et al., 2024) found that social trust plays a significant role in overcoming limited access to finance, particularly in less developed financial markets. Trust formed through social interactions within the community allows SMEs to obtain capital by relying on their social networks as "social collateral." This not only reduces the risk of information asymmetry but also reduces the risk of information asymmetry. This reduces the risk of asymmetric information and strengthens SMEs' ability to manage their financial obligations.

These trust and social network factors are becoming increasingly important in implementing accounting information systems (AIS). AIS aims to improve efficiency in financial data management, ensure transparency, and provide a solid basis for strategic decision-making. With social trust support and better financing access, SMEs can more easily adopt AIS to improve their performance. Therefore,

this study will examine the implementation of AIS in SMEs through a Systematic Literature Review approach to identify key factors that support its successful implementation in various contexts. Digitalization of accounting systems positively impacts the quality of accounting information, cost reduction, and more effective decision-making, especially in SMEs in developing countries such as Indonesia (Kusumawardhani et al., 2024). In implementing Accounting Information Systems (AIS) in SMEs, digitization is important in improving operational efficiency and competitiveness. Accounting digitization improves accuracy and timeliness in reporting and reduces operational costs. This supports more strategic decision-making by MSME management. With a target of 30 million SMEs in Indonesia to "go digital" by 2024, AIS digitization is a key element to support sustainable business growth. By adopting more advanced accounting technology, SMEs can overcome resource limitations and provide more relevant financial information for decision-making.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. Review Method

A systematic approach was used to review the literature on SME's accounting information system (AIS) implementation. A systematic literature review (SLR) was chosen to identify, assess, and interpret all relevant research evidence. SLR is a structured and widely recognized review method in many fields, including accounting information systems and small business management (Kitchenham, 2007). This SLR was conducted following systematic guidelines designed to ensure the validity and reliability of the results. The SLR process is conducted in three main stages (See Fig 1), namely:

1. At this stage, the objectives of the literature review were determined, including a focus on implementing AIS in SMEs, explicitly improving the efficiency, effectiveness, and accountability of financial management. Search keywords were designed to include terms such as "MSME Accounting Information System," "AIS Implementation in Micro Enterprises," and "Digital Financial System for SME."
2. Review Implementation: The literature search process was conducted using the Scopus database for 2019-2024. The selected articles met the inclusion criteria, such as research focusing on SMEs, AIS implementation, and the benefits of AIS on financial management and decision-making. The number of articles that met the search criteria was 38. Studies that were irrelevant or did not fit the context of SMEs were excluded at this stage.
3. Review Reporting: The selected articles were analyzed to identify key findings on factors influencing the successful implementation of AIS in SMEs. The analysis covered cost, operational efficiency, technology adoption rate, and implementation barriers.

2.2. Research Questions

Research questions (RQs) were designed to maintain the focus of the literature review. These questions were based on the Population, Intervention, Comparison, Outcomes, and Context (PICOC) framework. Table 1 shows the PICOC structure of the research questions.

Table 1. Summary of PICOC

Population	Indonesia's micro, small, and medium enterprises (SMEs) are from various industrial sectors.
Intervention	Implementation of Accounting Information Systems (AIS) by SME.
Comparison	No direct comparison was conducted; the study focused more on descriptive analysis and exploration of AIS implementation.
Outcomes	Effectiveness, perceived benefits, challenges in implementation, and integration of AIS with other systems.
Context	Data from databases such as Watase support SMEs operating in various sectors in Indonesia and Publish or Perish.

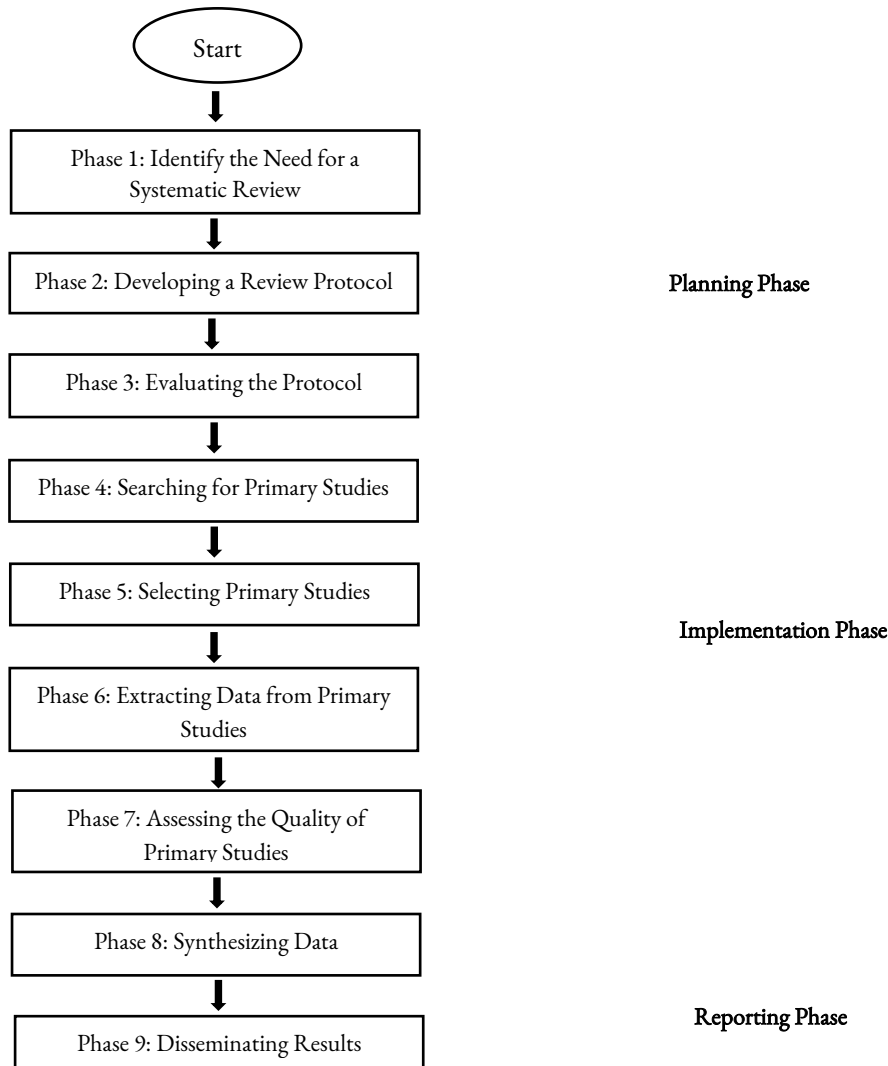


Figure 1. Systematic Literature Review Stage

The research questions and motivations addressed in this literature review are shown in Table 2.

Table 2. Research Questions in the Literature Review

	Research Question	Motivation
RQ1	What are the types of accounting information systems most commonly used by SMEs?	Identify and analyze the types of AIS popular among SMEs to understand preferences and trends.
RQ2	Who are the parties involved in implementing accounting information systems in SMEs?	Exploring the main actors involved in the AIS implementation process in SMEs and their roles in the process.
RQ3	What are the main features used by SMEs in accounting information systems?	Determine the key AIS features most widely used by SMEs, indicating the most valuable functional aspects.
RQ4	How do SMEs choose an accounting information system vendor or service provider?	Understand SMEs' vendor selection criteria and processes, including key considerations in their decision-making.
RQ5	What are the benefits felt by SMEs after implementing accounting information systems?	Explore the positive impact of AIS use on SME operations and management, including increased efficiency and productivity.

	Research Question	Motivation
RQ6	How is the accounting information system integrated with other management systems in the SME?	Assess how the AIS is integrated with other systems and business processes in the SME, including challenges and solutions in the integration.

From the research conducted, Accounting Information System (AIS) implementation methods, frameworks used, and data sets related to SMEs were extracted to answer research questions RQ1 to RQ6. Then, these methods, frameworks, and datasets were analyzed to determine the features of practical implementation, the parties involved, and the benefits SMEs felt after the AIS implementation. This analysis includes an assessment of the framework used for AIS implementation and an evaluation of the various AIS features used by SMEs.

2.3. Search Strategy

The search process (Step 4) went through several important stages to ensure the literature retrieved was relevant and of high quality. These stages include selecting the digital library, defining the search string, conducting a pilot search, refining the search string, and identifying and selecting key articles that match the research question. Before starting the search, relevant databases were selected to increase the likelihood of finding the most suitable articles. This approach aimed to obtain a broad scope of studies, ensuring that the literature used was diverse and covered a range of perspectives.

Digital Library Used:

- Watase Uake Tools (watase.com)
- Publish or Perish
- Google Scholar (scholar.google.com)

The initial stage of the search started by defining the main keywords such as "Micro, Small, and Medium Enterprises Accounting," "Accounting Information Systems Implementation," and "System Integration in SME." A pilot search was conducted using Watase and Publish or Perish to evaluate the initial coverage of search results and identify the keywords' relevance. Based on the results, the search string was then adjusted by adding word combinations or synonyms to ensure the search results were more relevant. An example is the addition of phrases such as "Digital Transformation in SME" or "Challenges and Benefits of AIS." Results from the initial search were then filtered based on specific criteria, including year of publication (2019-2024), relevance to the research questions (RQ1-RQ6), and indexing in reputable journals such as Scopus. The selection stage also ensures that the articles have accessible abstracts and full texts. After the initial selection, the selected articles were double-checked to validate their relevance and quality before entering the final analysis and synthesis stage. With this strategy, the literature obtained is expected to cover various important aspects of implementing Accounting Information Systems (AIS) in SMEs, including benefits, challenges, and integration with other systems.

2.4. Study Selection

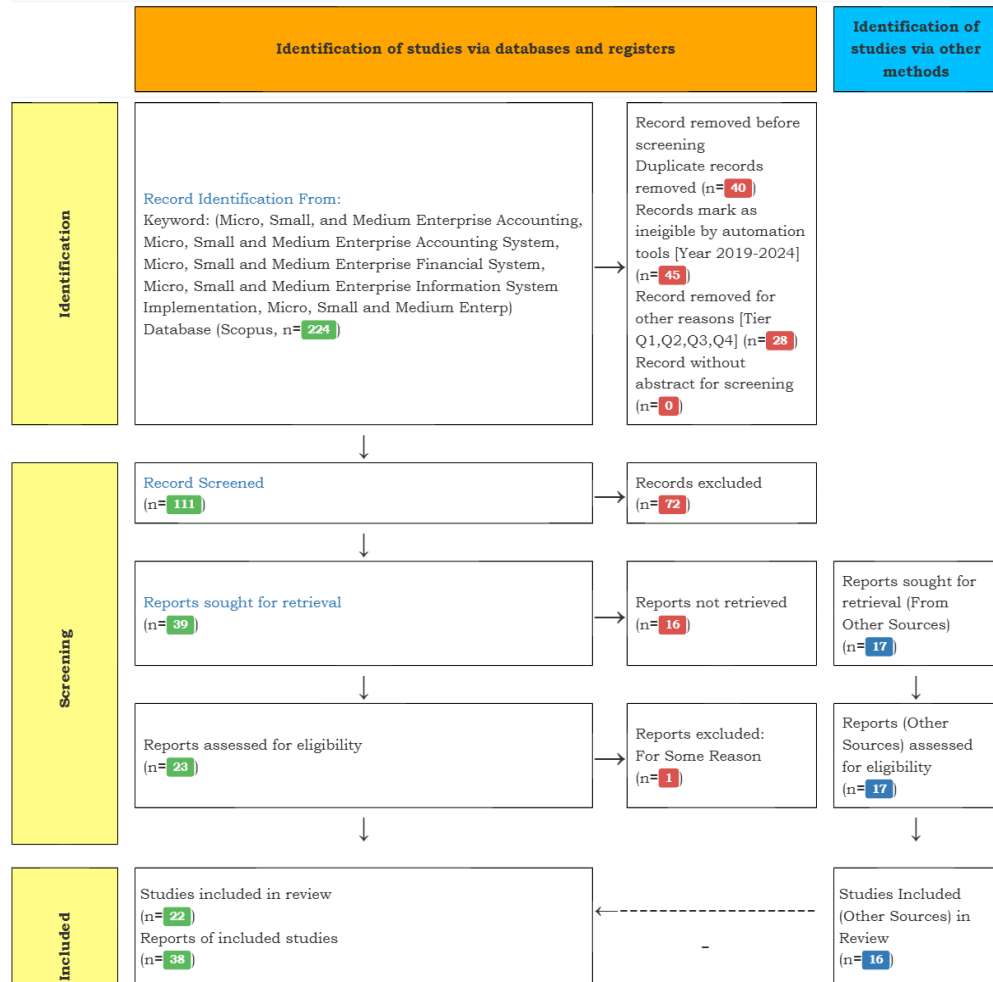
The study selection and evaluation stage is an important step in this research to ensure the literature used is relevant and of high quality. In the initial stage, the identification process produced 224 relevant articles based on keyword searches such as "Micro, Small, and Medium Enterprise Accounting" and "Information System Implementation" from the Scopus database. These articles were then filtered through several stages of elimination.

First, 40 articles were removed because they were detected as duplicates. Next, 45 articles were eliminated because they did not meet the inclusion criteria, such as not being in the 2019-2024 publication year range or irrelevant to the research questions (Q1, Q2, Q3, Q4). In addition, articles that did not have an abstract were removed, although no articles fell into this category at this stage. At the manual screening stage, out of 111 articles evaluated, 72 were eliminated after further assessing the abstracts and article content. This process ensured that only articles relevant to the research topic

were selected. After that, of the 39 articles that passed the screening, 16 were inaccessible or incomplete data, while one was eliminated for other reasons. Finally, 22 articles were selected as the central part of the review. To complete the analysis, 16 relevant articles were retrieved from other sources, such as non-Scopus publications.

Thus, 38 articles were used in this study. The articles were carefully selected to ensure relevance and quality in answering the research questions and to provide a strong foundation for the results and discussion.

Prisma Reporting: Implementation Of Ais In Msme



Generate From Watase Uake Tools, based on Prisma 2020 Reporting

Figure 2. PRISMA Reporting AIS Implementation in SME

Source: Data processed from Watase uake website, 2024

2.5. Data Extraction

The selected primary studies were extracted to collect data that contributed to answering the research questions in this review. A data extraction form was designed for each selected study to collect information relevant to the research questions. The properties identified through the research questions cover various aspects required for further analysis. Six main properties were used to answer the research questions, as shown in Table 3. The data extraction process was iterative.

Table 3. Data Extraction Properties Mapped to Research Questions

No	Criteria	Research Question (PP)
1	Types of Accounting Information Systems	RQ1
2	Actors Involved	RQ2
3	Key Features of Accounting Information Systems	RQ3

No	Criteria	Research Question (PP)
4	Vendor Selection Process	RQ4
5	Benefits of Accounting Information System Implementation	RQ5
6	Integration with Other Management Systems	RQ6

2.6. Synthetic data quality assessment

The study quality assessment (Step 8) was used to guide the interpretation of the synthesis findings and determine the strength of the conclusions. Data synthesis aims to aggregate evidence from the selected studies to answer the research question. A single piece of evidence may have limited strength, but aggregating multiple pieces may lead to firmer conclusions. The data extracted in this review included both quantitative and qualitative data. Various strategies were used to synthesize data relating to research questions. In general, narrative synthesis methods were used. Data were tabulated in a format consistent with the research questions, using visualization tools such as bar graphs, pie charts, and tables to enhance the presentation of the synthesis results. This process includes synthesizing relevant data to answer the research questions. It provides additional insights into familiar patterns and relationships between variables, such as implementing Accounting Information Systems (AIS) and its impact on the operational efficiency of SMEs. This synthesis also includes grouping studies based on categories such as types of systems used, perceived benefits, and implementation challenges.

2.7. Threats to Validity

Based on relevant literature findings, this review analyzes studies on implementing Accounting Information Systems (AIS) in SMEs. However, some threats to the validity of the results of this review need to be noted. One of the main threats is potential bias in selecting studies. This review relied on keyword-based searches and platforms such as Watase and Publish or Perish, which may not include all relevant articles, significantly articles published in conferences or journals not indexed in the databases used. This may lead to some important studies being excluded from the analysis. In addition, strict exclusion criteria, such as year of publication (2019-2024) and relevance to the research questions (RQ1-RQ6), may eliminate studies that, although older, still make significant contributions to the topic. The search and screening process was also not based on the manual reading of all published articles, which could have led to missed studies. However, this review ensures that the sources selected are from reputable journals or databases with high credibility, such as Scopus, IEEE Xplore, and ScienceDirect. With this approach, it is hoped that threats to validity can be minimized, although not eliminated. A narrative synthesis approach was also used to integrate data from different studies and provide a comprehensive view.

3. RESULTS AND DISCUSSION

3.1. Classification of Articles Based on Keywords

Table 4. Classification of Articles Based on Keywords

No.	Topic/Keyword	Researcher Name (Year)
1	MSME Accounting (Micro, Small & Medium Enterprise Accounting)	Alshenaifi & El Sayad (2024)
2	MSME Accounting System (Micro, Small & Medium Enterprise Accounting System)	Kusumawardhani et al. (2024), Nóbrega et al. (2023), Kantun et al. (2020), Lutfi et al. (2022), Cechvala & Ganson (2024)
3	Micro, Small & Medium Enterprise Financial System	Kumarasamy et al. (2024), Bongomin et al. (2024), Syarif & Aysan (2024), Dela Cruz et al. (2023), Li et al. (2023), Rifas et al. (2024), Okfalisa et al. (2021), Effiom & Edet (2022), Dey et al. (2022), Alora & Barua (2019), Schwab et al. (2019)
4	Implementation of MSME Information System (Micro, Small & Medium Enterprise Information System Implementation)	Mujalli et al. (2024), Sharabati et al. (2024), Gupta et al. (2023), Yang et al. (2023), Tongsuksai et al. (2023), Subramanian et al. (2021), Al-Hattami et al. (2021), Deng

No.	Topic/Keyword	Researcher Name (Year)
		(2022), Rupeika-Apoga & Petrovska (2022), Ibrahim et al. (2020), Latifah et al. (2021)
5	MSME Information Technology Implementation (Micro, Small & Medium Enterprise Information Technology Implementation)	Ulupui et al. (2024), Saifurrahman & Kassim (2024), Bitkowska et al. (2023), BinSaeed et al. (2023), Lutfi (2022), Putra et al. (2023), Rosa & Paula (2023), Wirdiyanti et al. (2023), Zhao et al. (2022), Sastararuji et al. (2022)

The significance value is 0.000, indicating this relationship is also statistically significant at the 0.01 level.

Based on the identification and selection process of articles using the PRISMA methodology and reports from Watase, 40 articles have been classified based on the keywords used in this study, namely MSME Accounting (Micro, Small, Medium Enterprise Accounting), MSME Accounting System (Micro, Small & Medium Enterprise Accounting System), MSME Financial System (Micro, Small & Medium Enterprise Financial System), MSME Information System Implementation (Micro, Small & Medium Enterprise Information System Implementation), and SME in General (Micro, Small & Medium Enterprise).

These articles cover a wide range of topics relevant to the research questions. In the MSME Accounting category, some articles discuss the application of accounting to support operational efficiency and decision-making in SMEs. Some of the articles included in this category are (Alshenaifi & El Sayad, 2024). These studies highlight the importance of accounting systems in improving the performance of SMEs.

The MSME Accounting Systems category includes research focusing on accounting information systems SMEs use, such as QuickBooks, Accurate Online, and Excel-based systems. Articles such as Kusumawardhani et al. (2024), Nóbrega et al. (2023), Kantun et al. (2020), Lutfi et al. (2022), Cechvala & Ganson (2024) provide insights into the implementation process, challenges and benefits of these systems.

Furthermore, in the MSME Financial System category, the identified articles include research on cash management, financial reporting, and cost control in SMEs. Some articles in this category are Kumarasamy et al. (2024), Bongomin et al. (2024), Sharif & Aysan (2024), Dela Cruz et al. (2023), Li et al. (2023) Rifas et al. (2024), Okfalisa et al. (2021) Effiom & Edet (2022) Dey et al. (2022) Alora & Barua (2019), Schwab et al. (2019). These studies provide a perspective on how financial systems can assist SMEs in financial decision-making.

In the MSME Information System Implementation category, the selected articles highlight the challenges, success factors, and solutions of information system integration in SMEs. Articles such as Mujalli et al. (2024), Sharabati et al. (2024), Gupta et al. (2023), Yang et al. (2023), Tongsuksai et al. (2023) Subramanian et al. (2021), Al-Hattami et al. (2021) Deng (2022) Rupeika-Apoga & Petrovska (2022) Ibrahim et al. (2020), Latifah et al. (2021) discuss the technical and managerial aspects of the information system implementation.

Finally, the MSME Information Technology Implementation category includes articles that provide a broader perspective on SMEs, including innovation, technology adoption, and their impact on the local economy. Articles such as Ulupui et al. (2024), Saifurrahman & Kassim (2024), Bitkowska et al. (2023) BinSaeed et al. (2023), Lutfi (2022), Putra et al. (2023) Rosa & Paula (2023), Wirdiyanti et al. (2023), Zhao et al. (2022), Sastararuji et al. (2022) provide diverse views on the role of SME in various industrial sectors.

This classification provides a balanced picture of the distribution of articles in each category, showing that this research covers various important aspects of implementing Accounting Information Systems in SMEs. With such a broad coverage, the results of this analysis can answer various research questions formulated.

3.2. Bibliometric Analysis

Bibliometric analysis is presented to provide an overview of the development of related research in tables, graphics, diagrams, and so on. This bibliometric analysis is taken from several related studies from 2019 to 2024. Fluctuations in developing research related to Accounting Information Systems

in SMEs change yearly, indicating a movement in research activities carried out by individuals and organizations. The contribution of the research is measured by how many articles are published.

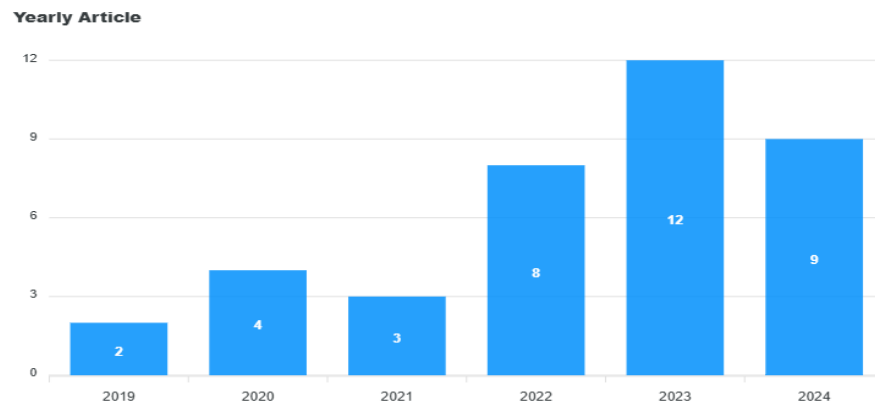


Figure 2: Research Development Based on Year of Publication
 Source: Data processed in 2024

Analysis related to articles regarding Accounting Information Systems in SMEs, namely 38 articles, shows the development of research from each year, starting from 2019 to 2023, and the publication of articles has consistently increased (except in 2021). In 2019, the number of articles published was, and in 2023, there were 12 articles. However, the number of publications in 2024 decreased slightly compared to 2023, which was nine articles. The number of article publications can still be categorized as high compared to the number of publications in 2019-2022. Based on the number of article publications, it is hoped that the number of article publications regarding Accounting Information Systems in SMEs will increase to add references related to the focus of this research.

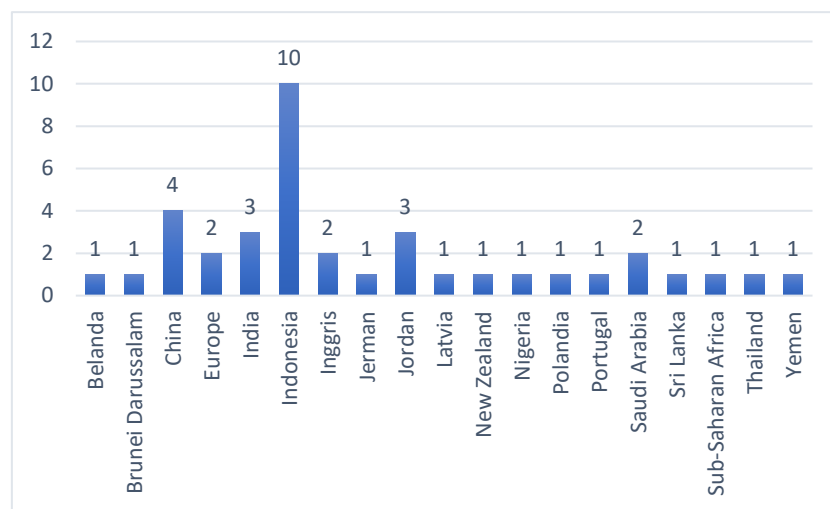


Figure 3: Country Article Distribution Chart
 Source: Data processed in Year 2024

Analysis of articles based on publications in countries shows that research on Accounting Information Systems in SMEs has more publications in Indonesia, namely 10 articles. This means that research related to Accounting Information Systems in SMEs over the past 5 years has received enough attention in Indonesia. Apart from Indonesia, articles on accounting information systems in Indonesia have also been published in various countries, including China, Jordan, India, Saudi Arabia, and others. The diagram above shows that research on MSME Accounting Information Systems is

still being published in several countries. Thus, research related to information systems has always experienced developments, as viewed from the publication of articles in several countries.



Figure 4. Graph of Article Distribution Based on Article Classification
Source: Data processed in Year 2024

The analysis above classifies the number of articles published by the journal. The diagram above shows that Accounting Information Systems research has developed, as indicated by the number of journals that publish this research. The number of journals that publish articles on Accounting Information Systems is due to the number of countries that research the research. Some journals that publish related articles include Engineering Management in Production and Service, Sustainability, Journal of Small Business and Enterprise Development, and several other journals.

RQ1: The type of accounting information system most commonly used by SMEs.

The type of accounting information system (AIS) most commonly used by SMEs varies depending on the business scale, specific needs, and level of technological literacy. Based on some research:

1. Cloud-based systems such as QuickBooks, Xero, and Accurate Online are popular among SMEs due to their ease of access and integration capabilities with other systems.
2. Microsoft Excel is still often used by small SMEs as a simple tool for manual financial recording.
3. Modular ERP is used by medium-sized SMEs that require additional features such as inventory management and real-time reporting.

Subramanian et al. (2021) state that cloud-based systems greatly support SMEs in improving operational efficiency due to their flexibility.

RQ2: Parties involved in the implementation of accounting information systems in SMEs.

The parties involved in the implementation of AIS in SMEs include:

1. MSME owner: The primary decision maker in selecting and implementing the system.
2. Accounting Staff: Responsible for the daily use of the system, such as recording transactions and preparing reports.
3. Service Provider/Vendor: Provide the SIA installation, training, and technical support services.
4. Financial or Technology Consultant: Assist SMEs in planning and implementing complex systems.

Wirdiyanti et al. (2023) highlight the importance of training for MSME staff to maximize the use of AIS, especially in understanding the system's main features.

RQ3: Key features used in accounting information systems by SMEs.

The main features most widely used in AIS by SME include:

1. Automated Financial Reporting: Helps generate income statements, balance sheets, and cash flows quickly and accurately.
2. Inventory Management: Used to track real-time stock of goods, which is very important for SMEs in the trading sector.
3. Tax Integration: Simplify calculating and reporting monthly taxes.
4. Visual Dashboard: Provides financial information in an easy-to-understand format for decision-making.

According to Ogar et al. (2023), SMEs' automated reporting and integration with tax systems are the most valued features as they reduce time and manual errors.

RQ4: SMEs' process for selecting accounting information system vendors or service providers.

The vendor selection process by SME considers several key criteria:

1. Cost: SMEs choose vendors with low subscription fees or pay-per-use models.
2. Technical Support: Vendors that provide training and good after-sales service are preferred.
3. Community Recommendations: Many SMEs choose vendors based on reviews from the local business community or MSME associations.

Handayani et al. (2023) emphasize vendor reputation as a key factor in decision-making.

RQ5: Benefits perceived by SMEs after implementing accounting information systems.

Key benefits perceived by SMEs include:

1. Operational Efficiency: Faster and more accurate bookkeeping process
2. Real-Time Information Access: Enables better data-driven decision-making.
3. Increased Investor Confidence: Structured financial documentation helps SMEs gain access to formal financing

Wirdiyanti et al. (2023) noted that using AIS increases efficiency and reduces manual workload, allowing MSME owners to focus more on business development.

RQ6: Accounting information systems are integrated with other management systems in the SME.

Integration of AIS with management system integration with Inventory Management System helps track stock items in real-time and reduces the risk of overstocking or understocking.

1. Integration with CRM (Customer Relationship Management) System: Enables better sales tracking and customer relationship management, especially for SMEs in the trade and service sectors.
2. Integration with Digital Payment System: Facilitate automatic recording of transactions
 - Challenges: The AIS is limitedly compatible with other preexisting systems, and staff training to use a more complex system is needed.
 - Solution: Using API (Application Programming Interface) to allow systems to communicate with each other, as well as conducting comprehensive training for end-users

According to Nóbrega et al. (2023), effective integration between AIS and other management systems can give SMEs better strategic insights and improve their market competitiveness.

4. CONCLUSION

This research aims to identify and analyze scientific articles that discuss Accounting Information Systems (AIS) in SMEs, focusing on publications from 2019 to 2024. Based on the results of keyword classification, the articles are grouped into five main categories: MSME Accounting, MSME Accounting System, MSME Financial System, MSME Information System Implementation, and MSME in general. From a total of 40 articles reviewed, this research reveals that the implementation of AIS in SMEs covers various crucial aspects, such as financial management, utilization of system-based technology, and challenges faced in the implementation process. The findings also show that

cloud-based systems, such as QuickBooks and Accurate Online, are becoming widely used, while Microsoft Excel remains a practical alternative for small SMEs.

This study further illustrates an increasing trend in the number of publications related to AIS in SMEs from year to year, with the highest number of publications recorded in 2023. However, in 2024, there was a slight decrease compared to the previous year. The geographical distribution of articles shows that Indonesia has the most significant contribution, with 10 articles, followed by other countries such as China, India, and Saudi Arabia. These findings emphasize the importance of AIS research in the financial management of SMEs, especially in developing countries. Various parties are involved in AIS implementation, including MSME owners, accounting staff, service providers or vendors, and financial consultants. While implementation often faces obstacles, such as limited system compatibility, low technological literacy of staff, and implementation costs, these challenges can be overcome through comprehensive training and better technology integration, such as through APIs. Key benefits include improved operational efficiency, real-time access to information, and increased credibility with investors. The most frequently used features in the AIS include automated financial reporting, inventory management, and integration with tax systems.

This study confirms that implementing Accounting Information Systems significantly improves SMEs' operational efficiency and competitiveness. This research can serve as a strategic foundation for SMEs and relevant stakeholders to adopt relevant technology solutions to support business sustainability and growth by highlighting the types of systems used, the most valued features, the challenges faced, and the perceived benefits.

This study has several limitations that may affect the results and their implications. First, the limited data coverage of scientific articles published between 2019 and 2024 may overlook important articles from earlier periods or those not indexed in specific databases, limiting the generalizability of the findings. Second, this study mainly includes articles from developing countries like Indonesia, so the findings may be less relevant for SMEs in developed countries with different technological infrastructures and challenges. Third, the quality of the articles analyzed varies, so some findings may be affected by less robust methodology or data. Finally, as this study is literature-based, the lack of direct empirical data from SMEs may limit the reflection of the findings to actual conditions in the field. To overcome these limitations, future research can develop comparative studies between countries to understand differences in implementing Accounting Information Systems (AIS) in SMEs regarding policies, technological literacy, and infrastructure. In addition, exploration of the influence of new technologies, such as artificial intelligence, blockchain, or big data, also needs to be done to assess the potential of these technological innovations in improving the effectiveness of AIS. Longitudinal studies that evaluate the long-term impact of AIS implementation on SMEs, such as operational efficiency, business growth, and adaptation to market changes, will provide deeper insights.

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