ENHANCING MSME PERFORMANCE THROUGH IMPROVEMENTS IN ACCOUNTING INFORMATION SYSTEMS: A COMPARATIVE STUDY OF INDONESIA AND MALAYSIA

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ABSTRACT
This research aims to analyze and compare the quality of accounting information systems implemented in Micro, Small, and Medium Enterprises (MSMEs) between Indonesia and Malaysia, to enhance performance effectiveness in these entities. A descriptive analysis is employed based on a qualitative approach to assessing the quality of accounting information systems. Data analysis involves summarizing data, documents, literature reviews, and previous research. The findings of this study align with previous research, indicating that implementing a high-quality accounting information system positively correlates with the effectiveness of MSME performance in both Indonesia and Malaysia. In summary, this research demonstrates that MSMEs that have adopted an accounting information system exhibit enhanced performance, particularly in decision-making processes, internal control, and the quality of financial reporting. The implications of this research extend to MSMEs, academic and non-academic literature, as well as future studies.

Keywords: Accounting Information Systems, Performance and MSMEs.
INTRODUCTION

At this time, business opportunities are very large for business people who want to expand their market share and expand their business. Therefore, the problems that many face are regarding the organization's managerial management, which determines the business's continuity and development in the future. This managerial system is increasingly developing and requires information technology support, leading to a Real-Time online accounting information system (AIS) that can provide information quickly and precisely. Accounting Information Systems (AIS) constitute a crucial component of organizational information systems. Within such systems, AIS specifically focuses on managing financial data (Damayanti et al., 2023). Management's unpreparedness in developing information systems will result in delays in data processing for decision-making and will also impact internal supervision and the quality of financial reports. Therefore, management is expected to develop information systems to provide accurate, relevant, and timely data, making it easier to make decisions, maintain internal control, and produce quality financial reports (Nguyen & Ho, 2021).

Accounting Information Systems are needed not only for large companies but also for small and medium businesses. MSMEs have an important economic position in almost all countries, including Indonesia and Malaysia and are considered important players in economic and financial development. This sector supports the national economy through the contribution of MSMEs, which reach 61% of Indonesia's GDP. Apart from that, the labor absorption in this sector is quite large, as much as 97% of the total national labor absorption. According to the Ministry of Cooperatives and Small and Medium Enterprises of the Republic of Indonesia (2023), there are approximately 67 million MSME business entities. MSMEs are generally a term for entrepreneurs who run businesses using their capital, with a limited number of business assets owned by a relatively limited number of workers (Nwinee et al., 2016). MSMEs are increasingly developing over time in the economic world, so their growth cannot be underestimated. For ASEAN countries whose members are developing countries such as Indonesia and Malaysia, even though Malaysia is more developed than Indonesia. MSMEs themselves have a potential role in becoming a source of livelihood on a regional and national scale.

In the country nicknamed the neighbouring country, the development of MSMEs has a vision of increasing competitiveness and the ability to deal with foreign MSME products. Public policy is one of the country's main priorities, with the government's strong commitment to developing MSMEs. This commitment can be seen through the issuance of policies regarding MSMEs since the 1970s. MSMEs in Malaysia greatly contribute to forming a society that reduces dependence on imported goods. This is used to develop people's prosperity and encourage a balanced economy by including MSMEs in the industrial supply chain. Similar to Malaysia, MSMEs in Indonesia have a crucial role (Anggadini et al., 2023). This was seen in 1998 when Indonesia experienced a monetary crisis that caused a weak rupiah exchange rate and the destruction of the national economy. Where many large companies have gone out of business, the MSME segment has continued to run its economic wheels, becoming a turning point and savior of the nation's economy. This is used as momentum for the country's economic growth (economic growth). In Indonesia, micro, small, and medium enterprises (MSMEs) are governed by the Republic of Indonesia's Law Number 20 of 2008. Malaysian MSMEs are divided into regional-scale MSMEs, which are used to support activities in the region and national-scale MSMEs to grow the country's economy. Malaysian MSMEs are dominated by economic activities engaged in industry and manufacturing. Meanwhile, the criteria for Malaysian MSMEs are classified into MSMEs in the manufacturing industry, including agro-industry, MSMEs in the agricultural sector, and MSMEs in the services sector, including IT. The manufacturing industry is concentrated along the west coast of Malaysia, close to Singapore. Johor Bahrut, specifically, is oriented towards textiles and wood-based industries. Meanwhile, in Indonesia, the Ministry of Cooperatives and MSMEs of the Republic of Indonesia stated on October 31, 2017, stated that in general, Indonesian MSMEs are divided into two large groups, namely agricultural and non-agricultural sectors, with the non-agricultural sector according to the 2016 economic census there being 3 MSMEs in the business sector. The top positions in the national economy are the wholesale and retail trade sector, accommodation and food and drink providers, and the processing industry.
The development of MSMEs cannot be separated from applying accounting information systems in their management (Palazuelos et al., 2017). Management is the systematic process or methodology employed to oversee and direct actions or activities involving the mobilization of the collective energy of individuals. It encompasses the formulation of organizational policies and objectives, as well as the supervision of all facets of policy implementation and achievements, including accounting policies. Even though accounting plays an important role for MSMEs, not all MSMEs in Malaysia implement this accounting information system in their business. Based on previous research conducted in Indonesia, according to Kurniawati & Hermawan (2012), MSMEs have recorded transactions, but only 34.78% of them make financial reports. This means that the records they create are only for tax investigations and are only to be kept as meaningless documents. Educational factors, knowledge factors, and low levels of awareness about the importance of accounting may be several factors that cause this phenomenon, according to Kurniawati & Hermawan (2012). Acen (2019) added that MSMEs have documents that are very useful for recording transactions, but these documents are not used as a basis for decision-making processes and other important uses.

Furthermore, accounting is an important information source that is useful for business decision-making, performance evaluation, and control. However, based on previous studies, the majority of SMEs do not use accounting information systems. In addition, they do not make financial reports in their business.

The main problem lies in the lack of knowledge or skills of MSME managers or owners to use financial reports from AIS (Alnajjar, 2017), or they are not aware that they can use financial reports to help them in the financial decision-making process (Kpurugbara et al., 2016). Multiple studies have demonstrated that MSMEs often lack effective management control and tend to make business decisions on an ad-hoc basis. This is primarily attributed to their limited internal capabilities (Georgiadis, 2019). Furthermore, many MSMEs rely on informal sources of information during the decision-making process (Firas, 2018). This means they do not fully utilize financial report information as an important tool for planning, controlling and making decisions. Based on the provided description, this study aims to assess, analyze, and compare the effectiveness of MSME accounting information systems deployed in Indonesia and Malaysia. The aim is to enhance performance effectiveness, particularly in decision-making, internal control, and the quality of financial reporting.

**LITERATURE REVIEW**

**Accounting Information System**

An Accounting Information System (AIS) is designed to assist an organization's management process. SIA helps management to manage organizations related to the financial sector. Accounting information systems do not only focus on technology information systems. It can also take other forms that use non-computerized methods. A process combining financial transactions can also be categorized as an SIA procedure (Firas, 2018). DeLone & McLean (2016) elucidate that an accounting information system is a framework that furnishes users with processed data and transactions requisite for controlling, operating, and strategizing a business. AIS helps companies and management teams in controlling and planning business activities by providing reliable and relevant information for decision-making (Abu-Eker et al., 2019). In conclusion, the accounting information system holds significance for the company, so implementing it requires good information control for the company (Al-Mamary et al., 2014).

**Small and Medium Enterprises**

Micro, Small and Medium Enterprises (MSMEs) are one of the main drivers of a nation’s economy (Lee & Shakerin, 2019). Some companies may not be able to respond quickly due to the increasing use of accounting information systems, which will widen the gap between market leaders who use AIS in their business operations. MSMEs play an important role in Malaysia’s economic development as traders and service providers for primary industries. Apart from that, many MSMEs also produce finished goods or services. The growth of manufacturing, services and agricultural sectors, as well as information technology and communication services, in terms of added value, output,
exports and employment opportunities, is also supported by MSMEs (Lyna et al., 2020). As a result, MSMEs have a major influence on the Malaysian economy as a whole. In 2005, SMEs accounted for 56.4% of employment opportunities, 32% of the gross domestic product (GDP), and 19% of exports. Conversely, in Malaysia, SMEs contributed only 32% to GDP, despite comprising over 99.2% of total businesses. This figure contrasts with other countries like Korea, Taiwan, and Thailand, where SMEs contributed 40% to GDP. This suggests that there is a significant potential for Malaysian SMEs to broaden their influence (SME Corp., 2012).

**Accounting Information Systems on MSME Performance**

Through the utilization of information technology, organizations can analyze financial performance and make informed decisions. Additionally, an Accounting Information System (AIS) serves as a tool for fostering a robust and adaptable corporate culture to navigate changes in the business landscape (Daniel & Victor, 2019). The primary objective of implementing an AIS is to enhance decision-making processes and monitor company performance. The significance of an AIS lies in its ability to enhance the quality of performance evaluations, decision-making, and internal oversight within an organization. Shin (2001) emphasizes that aligning system implementation with corporate strategy leads to the effective implementation of AIS. This assertion is further supported by Cragg et al. (2002), who suggest that AIS implementation positively impacts organizational performance, aligning with business strategies.

Moreover, Zhou & Chen (2008) underscored the significance of establishing a strong alignment between technological capabilities and organizational requirements. Misalignment between the organization’s needs and the functionalities offered by new technology can lead to subpar performance. Conversely, Hyvonen (2007) elucidated that inadequate performance, even with sophisticated information technology, can yield inferior outcomes. Strong justification and a mature planning process must be considered before a company decides to adopt an accounting information system. This is due to limitations and a lack of experience and resources in the IT field in MSMEs (Zuo & Lin, 2022).

**Accounting Information Systems and Decision-Making Process**

By utilizing an accounting information system, MSMEs can collect more accurate information for decision-making, which will result in increasing the level of organizational efficiency and increase the organization’s profits. Perren & Grant (2000) explain that the decision-making process in MSMEs is more advanced than they think. They found that the lack of effectiveness of accounting information and monitoring systems to support their businesses was often caused by users who did not know how to implement formal accounting techniques into reality. However, studies adopting a more subjective approach where MSMEs rely on adequate accounting information, including managerial accounting, often make their business decisions through informal means. Therefore, Perren & Grant (2000) concluded that the contrary findings were based on the researchers’ paradigms rather than real contradictions. The argument reports that small firms’ awareness of using AIS for various purposes depends on business variations. Therefore, further investigation must be undertaken to determine the level of AIS needs in MSMEs (Acen, 2019).

**Accounting Information System and Internal Control**

Using Accounting Information Systems will bring benefits such as improving the quality of financial reports, better decision-making processes with internal controls, and facilitating company transactions. Therefore, integrating AIS within internal control mechanisms assumes a pivotal function in business operations to guarantee goal attainment and enhance the utility of operational internal controls (Dewi, Anggadini et al., 2023). Internal control measures ascertain the efficiency and effectiveness of business processes and ensure the reliability of financial data (Soudani, 2012). The credibility of the internal control system underscores the significance of internal control. Hellström (2006) explains that the value of internal control influences operational performance through the reliability of financial information and operational effectiveness. Managers must use AIS to make decisions in internal control. A study by
Bukenya (2014) found that using accounting information systems will bring benefits such as improving the quality of financial reports, better decision-making processes with internal controls, and facilitating company transactions. Therefore, implementing AIS in internal control techniques plays an important role in business to ensure the achievement of objectives and the usefulness of operational internal control.

**Accounting Information Systems and Financial Report Quality**

Qualitative accounting information is crucial in generating pertinent data and information for internal and external stakeholders. Financial reports stand as robust evidence of this correlation. Hence, the quality of information assumes a pivotal role in the production of qualitative accounting information, whereby the efficacy of the accounting information system enhances the quality of financial reports (Biddle et al., 2009). According to McLeod & Schell (2007), to provide useful results to help data users, data must come from trusted sources before being converted into strategic information that can be used strategically to design decisions within an organization. The user must understand useful data. This allows users to gain significant information from the data provided (Ahmed & Rebwar, 2019). From the user’s point of view, information can be understood if the information is presented in a form that allows the user to apply it in a decision-making situation. Information can significantly impact decision-making processes by either reducing uncertainty or augmenting the understanding of the significance of a particular decision. If this information is not relevant, its reliability will be reduced. Lack of timeliness can create irrelevant information (Khoufi, 2020).

**Previous Research**

Based on previous research, most organizations that have implemented AIS will find the true value not only in the short time the system can produce reports but also in the accuracy, efficiency and effectiveness of data and information. Alnajjar (2017) stated that an accounting information system is effective if it can improve an organization's performance measures. Additionally, the effectiveness provided by an accounting information system may be more effective if the business design and implementation of the system are aligned with organizational goals. Acen (2019) stated in his research that MSMEs implementing accounting information systems have higher productivity and better economic and financial performance. Kpurugbara et al. (2016), in research on MSMEs in Terengganu Malaysia, stated that most MSME organizations focus more on learning about SIA first rather than implementing it in the field. Naala et al. (2017) in their research stated that adopting an accounting information system can improve the performance, efficiency and competitive ability of an organization.

**METHODOLOGY**

The approach used in this research is qualitative (Kothari, 2004), with the objective of conducting research observations in two ASEAN countries, Indonesia and Malaysia. The type of research data used is secondary data in the form of documents and information via websites. These data include MSME documents accessed and obtained through ASEAN Economic Community [AEC] documents. The analysis used to achieve the research objectives is descriptive. The analysis stage begins with collecting document data, followed by summarizing the status and conditions of implementation in Indonesia and Malaysia to identify and group each country into each MSME group.

**DISCUSSION**

The Micro, Small and Medium Enterprises (MSME) sector has an important role, in accordance with Law No. 20 of 2008, as a driver of economic development in developing countries, namely Indonesia and Malaysia. The quality of MSME financial reports shows the growth of MSME sustainability (Anggadini et al., 2023). Accounting information has a role as a benchmark for assessing a company's financial health. A quality system produces quality accounting information. The qualities of accounting information systems include flexibility, effectiveness and efficiency.
Meanwhile, the quality of financial reports has indicators that must be easy to understand, relevant, reliable and comparable (Anggadini et al., 2023). Implementing an accounting information system will also make it easier for SMEs to carry out their company operations to increase SME performance, namely to maximize profits. In order to achieve their objectives, companies must remain adaptable to environmental shifts, particularly amidst the ongoing information technology revolution. Presently, information technology has become indispensable for numerous companies. Gaining a competitive edge and sustaining operations without adopting or integrating information technology is challenging (Hyvonen, 2007).

Accounting Information Systems in Improving MSME Performance in Indonesia

Accounting practices in Indonesia have historical roots dating back to the Dutch colonial era around 1642. Based in Jakarta, the Amphion Society carried out bookkeeping practices in 1747. The development of accounting in Indonesia initially adopted a continental system, the same as that used by the Dutch. This continental system is also called Bookkeeping or Bookkeeping. In 1959, the Indonesian Accountants Association [IAI] was founded to guide Indonesian accountants. In 1970, IAI created a code and adopted accounting principles and foundations based on Generally Accepted Accounting Principles (GAAP). The Indonesian accounting system focuses on the information investors need above government requests. In 1974, IAI created a financial accounting standards committee to create financial standards. In Indonesia, the Accounting Principles Committee [KPA] formulates accounting standards to be ratified by the supervisor of the Indonesian Accountants Association [IAI] as Financial Accounting Standards (SAK) and functions to adjust and prepare financial reports. The Indonesian Government has initiated reforms in the accounting sector, including the mandatory adoption of accrual-based accounting in all government agencies, both at the central and regional levels, starting from the 2008 budget year. In its development, accounting requires a tool in the form of an information system.

This study underscores the widespread adoption of accounting information systems within Micro, Small, and Medium Enterprises (MSMEs), particularly in financial reporting. The primary benefit of employing accounting information systems in MSMEs lies in their enhanced adaptability to environmental shifts and heightened efficacy (Grande, 2010). The function of accounting information systems encompasses data collection, recording, classification, and summarization, aiding managers in planning, controlling, and evaluating operations (Romney & Steinbart, 2017). Such systems furnish information crucial for various operations, including planning, control, coordination of production activities, and performance evaluation, comprising both financial and non-financial metrics (Soudani, 2012). By leveraging accounting information systems to manage their affairs, MSMEs can access more dependable information, facilitating informed decision-making conducive to maximizing profits and capital growth. Moreover, accounting information systems can augment the value proposition of MSMEs across Indonesia, contributing to product or service enhancement, performance optimization, timely decision-making, competitive advantage, and enhanced communication, as corroborated by prior research (Kurniawati & Hermawan, 2012; Anggadini et al., 2023).

Accounting Information Systems in Improving MSME Performance in Malaysia

Similar to Indonesia, Malaysia's official accounting system traces its origins back to England. Primarily aimed at providing information to investors, Malaysia’s accounting system underwent restructuring in 1997 with the enactment of the Financial Reporting Act, establishing the Financial Reporting Foundation [FRF] and the Malaysian Accounting Standards Board [MASB]. While the FRF oversees the MASB’s activities, it does not partake in the standards formulation process. The MASB operates as an independent entity tasked with developing and proposing accounting standards in Malaysia, employing a standardized and inclusive process involving users, policymakers, and accountants. Malaysian companies are mandated to prepare statutory financial reports in accordance with approved accounting standards issued by the MASB. Foreign entities listed on the Malaysian stock exchange may adhere to internationally recognized accounting standards, such as the Malaysian Financial Reporting Standards (FRSs) and the Malaysian Private Entity Reporting Standards (PERSs). Efforts towards convergence with International Financial
Reporting Standards (IFRS) were initiated, with MASB aiming for full convergence by January 1, 2012, aligning FRSs with standards issued by the International Accounting Standards Board (IASB). Accounting standards are integral to the accounting information systems implemented by organizations.

Based on the Census on institutions, foundations and companies (2019), out of 948,307, 99.2 percent of the total 952,849 companies currently operating are defined as Small and Medium Enterprises. (Ministry of International Trade and Industry, 2019). According to the National Agency for MSME Development (2020), a company is considered an MSME based on the number of full-time employees or annual sales turnover. In the manufacturing sector, a company is defined as an MSME if the entity has annual sales of a maximum of RM 50 million and employs no more than 200 full-time employees. On the other hand, in services and other sectors, a company is defined as an MSME if the company has a maximum annual sales turnover of 20 million and employs no more than 75 full-time employees. SMEs in these two sectors are further categorized into micro, small and medium enterprises.

MSMEs are very important in the Malaysian economy because of their economic contribution. Even though accounting plays an important role for MSMEs, not all MSMEs in Malaysia implement this accounting information system in their business, even though it is realized that AIS can play a role in improving the performance of MSME players. Many previous studies have analyzed the role of Accounting Information Systems in management in an organization (Alsmady, 2022). In addition, several previous studies have also analyzed how different types of strategies and designs of these systems, for example, different techniques and information, affect organizational performance. Proper design and implementation of AIS can help businesses increase organizational performance effectiveness (Biddle et al., 2009). Therefore, AIS is very important for all organizations. However, according to Ismail & Tayib (2003), the use of AIS, especially computer-based AIS, is also minimal among MSMEs, especially MSMEs in Malaysia.

CONCLUSION AND RECOMMENDATION

MSMEs in Indonesia and Malaysia have embraced implementing accounting information systems (AIS) to enhance their business performance and operational efficiency. Through the adoption of AIS, MSMEs aim to elevate the quality and effectiveness of their systems, thereby generating pertinent information essential for managerial decision-making and other critical purposes. AIS-enabled MSMEs can furnish reliable, pertinent, and timely financial data, which plays a pivotal role in facilitating informed economic decision-making processes. Moreover, leveraging AIS empowers MSMEs to compete effectively with larger entities, as it enables them to produce comprehensive and actionable insights into their business operations. To further optimize the benefits of AIS adoption, MSMEs should prioritize ongoing training and education, conduct regular system maintenance and updates, customize the AIS to suit specific business needs, integrate it with other business processes, implement robust cybersecurity measures, and establish continuous monitoring and evaluation mechanisms. These proactive measures will not only enhance the performance of MSMEs but also contribute to their sustained growth and competitiveness in the market.

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