ANALYSIS OF THE EFFECT OF IMPLEMENTING A DIGITAL TECHNOLOGY-BASED ACCOUNTING SYSTEM ON THE FINANCIAL PERFORMANCE OF MSME'S IN INDONESIA

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Abstract

The primary objective of this study is to examine the impact of introducing a digital technology-driven accounting system on the financial outcomes of Micro, Small, and Medium Enterprises (MSMEs) in Indonesia. In today's digital age, integrating technology into accounting systems plays a crucial role in enhancing the efficiency and transparency of financial reporting in MSMEs. The research employs a quantitative approach, utilizing a survey method to gather data from 150 MSMEs operating across various industries. Through the analysis of data using multiple linear regression, the study aims to assess the correlation between the implementation of a digital accounting system and financial performance, as measured by metrics such as profitability, cost effectiveness, and liquidity. The findings of this study reveal a positive and significant impact of incorporating a digital technology-based accounting system on the financial performance of MSMEs. The results suggest that MSMEs that embrace accounting technology demonstrate superior financial performance in comparison to those that adhere to traditional approaches. Consequently, this research imparts practical implications for MSME operators, encouraging them to actively adopt digital technology as a means to enhance financial performance and gain a competitive edge in the market.

Keywords: Digital Accounting Systems, Digital Technology, Financial Performance, MSMEs, Indonesia

1. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are vital to the Indonesian economy, making a substantial impact on both job generation and the growth of Gross Domestic Product (GDP). However, MSMEs often face various challenges, including limitations in financial management and accounting reporting, which can hinder their growth and sustainability. One solution that can help overcome this challenge is the implementation of a digital technology-based accounting system. Digital accounting systems enable MSMEs to automate accounting processes, increase the accuracy of financial reporting, and provide better insights for strategic decision-making.

Along with technological developments and increasing access to more affordable accounting software, many MSMEs in Indonesia are starting to adopt digital accounting systems. This technology not only helps in operational efficiency but also has the potential to improve the financial performance of MSMEs by providing more real-time and transparent financial data. However, the adoption of this technology still faces several obstacles, such as low digital literacy among MSME players, initial implementation costs, and resistance to changing from manual to digital systems.

The aim of this study is to examine how the financial performance of MSMEs in Indonesia may be influenced by the adoption of a digital technology-driven accounting system. The study is built on the assumption that incorporating digital technology into accounting processes can improve financial performance by driving cost efficiency, minimizing errors in financial statements, and bolstering the capacity for sound financial decision-making. Using a quantitative approach, this research will examine the relationship between the level of digital accounting system adoption and various financial performance indicators, such as profitability, operational efficiency, and liquidity.

In conducting this research, it is hoped that it can contribute to the literature on digital accounting in MSMEs, as well as offer practical recommendations for MSME players, governments, and technology providers to encourage the adoption of digital accounting systems. It is also hoped that the results of this research can become a reference for policymakers in formulating programs and initiatives that support digital transformation in the MSME sector, which can ultimately increase their competitiveness in global markets.

2. LITERATURE REVIEW

2.1. Digital Technology Based Accounting System

A digital technology-based accounting system refers to the use of software and applications that enable automation in the process of recording, processing, and reporting financial data. According to Phornlaphatrachakorn and Na Kalasindhu (2021), digital accounting systems can increase operational efficiency by reducing manual errors and providing faster and more accurate financial reports.

The application of digital technology in accounting includes various aspects, such as the use of accounting software, cloud-based data storage, and integration with other information technologies. Research by Romney and Steinbart (2018) shows that adopting a digital accounting system can increase transparency and accountability in financial management, which is very important for MSMEs to maintain and develop their businesses.

2.2. Financial Performance of MSMEs

MSME financial performance is usually measured through indicators such as profitability, operational efficiency, liquidity, and solvency. In relation to MSMEs, financial performance indicates how well a business can make profits, control expenses, and keep enough cash on hand for day-to-day tasks (Gitman et al., 2015). Several studies, such as those conducted by Ooghe and De Prijcker (2008), show that the financial performance of MSMEs is often influenced by limited access to capital, ineffective management, and unstructured financial records. Enhancing the effectiveness of the accounting system is seen as a method to enhance the financial outcomes of small and medium enterprises..

2.3. The Effect of Implementing a Digital Accounting System on Financial Performance of MSMEs

Several empirical studies show that the implementation of a digital accounting system can have a positive effect on the financial performance of MSMEs. Research by Ismail AND King (2007) found that MSMEs that adopt technology-based accounting systems tend to have better financial management, which is reflected in increased profitability and cost

efficiency. In addition, research by Balicka (2023) highlights that digital technology in accounting helps MSMEs in obtaining more real-time and accurate financial data, which in turn facilitates better decision-making.

However, there are also challenges in implementing digital accounting systems in MSMEs, as stated by Hendrawan et al. (2024), namely related to high initial costs, resistance to changes from manual to digital systems, and low digital literacy among MSME players. Therefore, there needs to be support from various parties, including the government and technology providers, to help MSMEs overcome these obstacles and maximize the benefits of digital accounting systems.

2.4. Factors that Influence the Implementation of Digital Accounting Systems in MSMEs

Several factors influence the success of implementing a digital accounting system in MSMEs, including organizational readiness, availability of resources, and support from top management (Chong et al., 2022). Other factors that play a role are the user's technical abilities, system complexity, and perceptions of the benefits and ease of use of the technology (Davis, 1989). A study by Thong (1999) states that MSMEs with a higher level of digital literacy and awareness of the importance of good financial management tend to be more successful in implementing digital accounting systems

3. RESEARCH METHODS

The main objective of this study is to examine how the utilization of a digital technology-driven accounting system impacts the financial outcomes of small and medium-sized enterprises (SMEs) in Indonesia. The chosen research methodology involves a quantitative strategy combined with an explanatory research framework. This particular method was selected to assess the cause-and-effect association between the variable under study, which is the integration of a digital technology-oriented accounting system, and the resulting financial performance of SMEs

3.1. Population and Sample

The population in this research consists of MSMEs that operate in Indonesia and have implemented a digital technology-based accounting system. Samples were taken using a purposive sampling technique, where the selection criteria were MSMEs that had used digital accounting software for at least one year. The research sample consisted of 150 MSMEs spread across several industrial sectors, such as trade, manufacturing, and services.

3.2. Data Collection

Primary data was gathered by carrying out a survey amongst MSME owners or financial managers via an online questionnaire. The questionnaire was structured with a 5-point Likert scale to assess how respondents viewed the adoption of digital accounting systems and the financial status of MSMEs. It contained inquiries about how often digital accounting systems were utilised, the specific software employed, the satisfaction level with the system, and financial performance metrics like profits, cost-effectiveness, and liquidity.

3.3. Research Variables

a. Independent Variable: Implementation of a digital technology-based accounting system, measured based on the level of technology adoption, frequency of use, and system complexity.
b. Dependent Variable: MSME financial performance, measured through indicators such as profitability (ROA, ROE), operational efficiency, and liquidity (current ratio).

3.4. Data Analysis Techniques

In this study, statistical techniques utilizing multiple linear regression were applied to examine how the independent variable impacts the dependent variable. Prior to conducting the regression analysis, traditional assumption tests were conducted to assure the data fulfilled necessary conditions including normality, multicollinearity, heteroscedasticity, and autocorrelation. The regression model utilised in this investigation is as follows:

$$Y=\alpha+\beta1X1+\beta2X2+\beta3X3+\epsilon$$

Where:

- Y = MSME financial performance
- α\alphaα = Constanta
- β1,β2,β3\beta_1, \beta_2, \beta_3β1,β2,β3 = Regression coefficient for each independent variable
- X1,X2,X3X_1,
- ϵ\ep silonϵ = Error term

3.5. Hypothesis Testing

Conducting hypothesis testing is essential in determining the extent of impact of the independent variable on the dependent variable. The hypotheses under scrutiny are as follows:

H_0: The introduction of a digital technology-driven accounting system does not have a considerable impact on the financial outcomes of MSMEs.

H_1: The implementation of a digital technology-driven accounting system does have a substantial impact on the financial outcomes of MSMEs.

The assessment of hypotheses is done by assessing the p-value derived from regression findings. Should the p-value be less than 0.05, H0 is disavowed, and H1 is embraced, denoting a noteworthy effect of integrating a digital accounting system on the financial performance of MSMEs.

3.6. Validity and Reliability

In order to uphold the accuracy of the information gathered, the research tools underwent testing for validity and reliability. Factor analysis was used during validity testing to ensure that each question in the survey accurately measures the desired concept. Cronbach's Alpha was employed during reliability testing, with a value higher than 0.7 deemed as dependable.

4. RESULTS AND DISCUSSION

4.1. Data Analysis Result

4.1.1. Data Description

The research sample consisted of 150 MSMEs operating in various industrial sectors in Indonesia and had implemented a digital technology-based accounting system. The majority of respondents came from the trade sector (45%), followed by the services sector (35%) and manufacturing (20%). The accounting software most widely used by respondents included Accurate, Jurnal.id, and MYOB. Most MSMEs have used this system for more than one year, with a high frequency of use in daily operational activities.

4.1.2. Classic Assumption Test Results

Prior to conducting the regression analysis, a traditional assumption test was carried out to ensure that the data meets the necessary criteria:

- Normality Examination: The Kolmogorov-Smirnov test outcomes demonstrate that the data adheres to a normal distribution ($p > 0.05$).
- Assessment of Multicollinearity: The findings indicate that the Variance Inflation Factor (VIF) for all variables is below 10, hence ruling out any multicollinearity issues.
- Evaluation of Heteroscedasticity: The scatterplot graph does not reveal any distinct pattern, as indicated by the Glejser test, thus confirming the fulfillment of the homoscedasticity assumption.
- Autocorrelation Assessment: According to the Durbin-Watson test results, the value of 1.8 falls within acceptable ranges, signifying the absence of any autocorrelation concerns.

4.1.3. Results of Multiple Linear Regression Analysis

The outcomes of conducting a variety of linear regression tests reveal that incorporating a digital technology-driven accounting system leads to a favourable and influential impact on the financial success of MSMEs. The subsequent regression formula is outlined below:

MSME financial performance = 2.5 + 0.35Level of adoption of digital accounting systems + 0.28Frequency of use + 0.40System complexity

The statistical test results show an R-squared value of 0.65, meaning that 65% of the variation in MSME financial performance can be explained by the independent variables in the model. The F-statistic value shows a p-value <0.05, indicating the model is statistically significant.

4.2. Discussion

The results of this research confirm the hypothesis that the implementation of a digital technology-based accounting system has a positive effect on the financial performance of MSMEs. This finding is consistent with previous research, which shows that digital technology can improve operational efficiency and financial reporting accuracy (Ismail & King, 2007).

4.2.1. Influence of Digital Accounting System Adoption Level

The regression coefficient for the adoption of digital accounting systems is 0.35, indicating that a higher level of adoption can lead to a 35% improvement in the financial performance of MSMEs. In other words, the more MSMEs embrace accounting technology, the more positively it impacts their financial performance. Technology adoption helps MSMEs to be faster in their financial reporting process, which ultimately facilitates more timely and accurate decision-making.

4.2.2. Effect of Frequency of Use

The frequency of use of digital accounting systems also has a significant positive influence on financial performance, with a regression coefficient of 0.28. MSMEs that routinely use digital accounting systems show improvements in their financial management, especially in terms of controlling costs and increasing profitability. Consistent use of this system allows MSMEs to better monitor their financial health.

4.2.3. Effect of System Complexity

The complexity of digital accounting systems has the highest regression coefficient of 0.40. This shows that a more complex and comprehensive system tends to provide greater benefits to the financial performance of MSMEs. However, system complexity must be balanced with ease of use and adequate user training to ensure that all features can be utilized optimally.

4.2.4. Research Implications

The results of this research have important implications for MSMEs, software developers, and policymakers. MSMEs in Indonesia are encouraged to be more open to adopting digital technology in accounting as a strategy to improve their financial performance. For software developers, there is an opportunity to create accounting solutions that are more user-friendly and suit the specific needs of MSMEs. For the government, these results underline the importance of support in the form of training and technology subsidies for MSMEs to accelerate digital transformation in this sector.

5. CONCLUSION

After reviewing the data and engaging in conversations, it can be inferred that incorporating digital technology-driven accounting systems can greatly benefit the financial performance of small and medium-sized enterprises in Indonesia. Higher levels of adoption, regular use, and system complexity contribute to improvements in profitability, operational efficiency, and liquidity. However, challenges such as implementation costs, low digital literacy, and resistance to change still exist. Therefore, external support from the government, technology providers, and other stakeholders is crucial in overcoming these barriers.

In light of these findings, MSMEs are encouraged to increase the adoption of digital accounting systems and invest in employee training to fully utilize the technology. Software developers must focus on creating user-friendly systems and providing adequate support. The government can help by offering incentives, subsidies, and fostering partnerships with

the private sector and educational institutions. Future research could explore additional factors affecting MSME financial performance and regional variations in Indonesia. Implementing these strategies is expected to enhance MSME financial performance through effective digital transformation.

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