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The Effect of Implementing an Accounting System on Profitability in MSMEs in The District Sandpaper Field

Mila Purnama Sari Purba*, Kartika Sari Lubis
Program Studi Manajemen, Sekolah Tinggi Ilmu Manajemen Sukma Medan
*Correspondence: milapurnamasaripurba@gmail.com

ABSTRACT
The purpose of this research is to determine the effect of implementing an accounting system on profitability in MSMEs in Medan Amplas District. This research uses quantitative data. The data source used is primary. The data collection method uses a questionnaire technique. The population in the study was all 101 culinary MSMEs in Medan Amplas District. And the research sample was 36 MSMEs in the culinary sector that have been established since 2021 and have sales of more than 30 million per year. Data analysis using a simple regression test using SEM on SmartPLS. The research results show that the accounting system has a positive and significant effect on profitability of MSMEs in Medan Amplas District. So, it can be said that if the implementation of the accounting system in the 36 MSMEs in Medan Amplas District gets better, it will increase the profitability of MSMEs in Medan Amplas District. Vice versa. As much as 50.01% of the profitability variable is influenced by the accounting system implementation variable

Keywords : Accounting System, MSMEs, Profitability

INTRODUCTION

Micro, small and medium enterprises (MSMEs) are the engines of job growth. They provide essential services to communities and contribute to a fairer distribution of wealth. This, in turn, fuels economic expansion and national stability. (Weya, Aeros, & Tumbel, 2020). Increasing and empowering MSMEs is currently receiving considerable attention from various parties, including the government, private banks, non-governmental organizations and other institutions. The Indonesian government has implemented various policies and programs to support the development of MSMEs, including financing, training, market access and infrastructure provision. In addition, with the development of technology and the internet, more and more MSMEs in Indonesia are taking advantage of digital platforms to expand their reach and increase their competitiveness. Even though they have great potential, MSMEs in Indonesia also face various challenges, such as limited access to financing, lack of management and technology skills, and increasingly fierce competition. Therefore, support from the government, private sector and society as a whole is very necessary to strengthen MSMEs and ensure their sustainability and growth in the national economy (Weya, Aeros, & Tumbel, 2020).

The financial performance of MSMEs can vary greatly depending on a number of factors, including industry, business size, geographic location, financial management, and external factors such as economic conditions and government regulations. However, there are several general metrics used to evaluate the financial performance of MSMEs, namely revenue, net profit, profit margin, cash flow, debt ratio, revenue growth, operational efficiency, ability to pay debt. It is important to note that MSMEs often face challenges in tracking and reporting their financial performance due to limited resources and managerial capabilities. Therefore, a holistic approach and proper guidance in financial management can really help MSMEs in improving their financial performance.

According to him, strengthening MSME institutions after the Job Creation Law, the enactment of Law Number 11 of 2020 on Job Creation has been beneficial for Micro, Small and Medium Enterprises (MSMEs). This is because the Job Creation Law specifically aims to streamline processes, offer protections, and empower MSMEs. One of the articles that strengthens MSME institutions is article 87 of the Law which makes licensing easier, opens up access to financing and provides protection. Article 91, MSME business licensing will be simpler and easier. Articles 88-90, access, support and protection for MSMEs to partner and collaborate with industry. Articles 96-104 require the business world and the Government to provide assistance in increasing the capacity of MSMEs.

The COVID-19 pandemic significantly impacted Indonesia's small businesses, known as MSMEs. This wasn't surprising since Micro, small and medium enterprises are the backbone of the Indonesian economy, making up nearly all businesses in the country. Data from the Ministry of Cooperatives in 2018 showed a staggering 64.2 million MSMEs, accounting for 99.99% of Indonesian businesses. It's no wonder that MSMEs being hit hard by the pandemic led to a decline in the national economy. Small businesses (MSMEs) are the powerhouse of employment in Indonesia. They employ a whopping 117 million workers, making up a staggering 97% of all jobs offered by businesses in the country. This dwarfs the contribution of large companies, which despite being only a tiny fraction (0.01%) of businesses (around 5,550), contribute just 38.9% to the national economy (GDP). However, within MSMEs themselves, micro-businesses are the most common type, making up nearly 99% of all Micro, small and medium enterprises. While they employ a significant portion of the workforce (around 89%), their contribution to GDP is lower, at around 37.8% (Ministry of Finance of the Republic of Indonesia, 2020).

An accounting information system is a comprehensive framework designed to capture, record, store, and process financial data. This processed information is then presented in a way that empowers decision-makers. The system encompasses human resources, established procedures, the data itself, software applications, the underlying technological infrastructure, and internal controls with robust security measures (Romney & Steinbart, 2019). Think of an AIS as the central nervous system for a company's financial data. It captures raw numbers from daily business activities, organizes them into proper categories, and then summarizes them into clear reports. These reports are then delivered to both internal managers and external stakeholders to help them make informed decisions. (Turner, Weickgenannt, & Copeland, 2019).

Indonesian Ministry of Cooperatives and SMEs data reveals a thriving micro, small and medium enterprise (MSME) landscape in 2019. There were a staggering 65.4 million Micro, small and medium enterprises, providing employment for a significant workforce of 123,300. Even more impressive, Micro, small and medium enterprises contribute a remarkable 60.5% to the national GDP. These figures highlight the immense potential for further development of Micro, small and medium enterprises, enabling them to become an even greater driver of Indonesia's economic growth. Data from the Ministry of Cooperatives and SMEs in Indonesia shows a significant surge in KUR credit, a scheme designed to aid Micro, small and medium enterprises. In 2020, KUR ballooned by IDR 178.07 trillion (approximately 16.25%). This upward trend continued in 2021, with an increase of IDR 1.92.59 trillion (approximately 8.16%). These substantial increases highlight the critical need for financial resources among Micro, small and medium enterprises to fuel their growth (Ministry of Finance of the Republic of Indonesia, 2023).

There are several problems for Micro, small and medium enterprises in improving their financial performance, especially profitability, problems faced such as access to financing because Micro, small and medium enterprises often face difficulties in getting access to affordable and easy financing. This can be an ongoing problem, especially for Micro, small and medium enterprises looking to expand or facing financial challenges. Another thing is because of digital transformation where technological developments continue to change rapidly, and Micro, small and medium enterprises that cannot adapt to digital transformation may be left behind in the competition. Increasing online presence, optimizing business processes with technology, and utilizing e-commerce platforms are some of the challenges faced by Micro, small and medium enterprises. Currently, Micro, small and medium enterprises or local products are in intense competition, meaning that every Micro, small and medium enterprises must be able to develop differentiation and added value strategies to remain competitive.

Financial reports are needed by all business circles, not only large companies with complex financial systems, but also Micro, small and medium enterprises. The reason is, every strategic business development decision requires analysis of the financial reports held. In contrast to large companies that have accountants, many Micro, small and medium enterprises business people ignore making financial reports on the grounds that they have to be made specifically using accounting programs that are difficult to use.

The Medan Department of Cooperatives, SMEs, Industry and Trade (Diskop UKM Perindag) continues to encourage Micro, small and medium enterprises in its region to enter the digital ecosystem. By switching to the digital world, Micro, small and medium enterprises can expand their

markets and increase their income. In this way, the quality of their products can improve. The Micro, small and medium enterprises digitalization program in Medan is being honed in various ways, one of which is through training. This activity is carried out routinely for all MSMEs in Medan. Then, the UKM Perindag Diskop also provides a platform for these Micro, small and medium enterprises, such as by including their products in the local "E-catalog". There, Micro, small and medium enterprises can provide goods for procurement by the Medan City Government. Apart from that, the UKM Perindag Diskop is preparing an Micro, small and medium enterprises electronic commerce (e-commerce) application which will be launched in October 2023. "E-commerce" is web-based and is planned to be named "Medan Electronic Kedai" (Kedan). (antaranews.com).

One of the Micro, small and medium enterprises fostered by the Medan City Government through the Medan Amplas District is Olly Cookies. This Micro, small and medium enterprises actor operates in the culinary sector, specifically producing various kinds of bread, sponge cake, bika ambon, lapis legit and others. This Micro, small and medium enterprises owned by Olly's mother has been around since 1998. Not only is it popular with residents of the city of Medan, Olly Cookies Micro, small and medium enterprises products are also popular with residents from outside the city and have even been sent to Aceh Province and Java Island.

Micro, small and medium enterprises that are fostered by the Medan City Government through the Medan Amplas District do not all have financial records in the form of an accounting system where the assets of Micro, small and medium enterprises are also not recorded clearly. In this case, the researcher wants to know how Micro, small and medium enterprises record their finances, whether they are in accordance with the simplest financial reporting standards, so that Micro, small and medium enterprises can develop every year, especially those in Medan Amplas sub-district.

Profitability ratios are like financial yardsticks used to measure a company's success in generating profit (Kasmir, 2020). Profitability ratios are financial metrics used to assess a company's efficiency in generating profit from its core business operations (Hery, 2020). A company's profitability reflects its success in turning its operations into a profit. Analyzing profitability involves evaluating how well business activities align with strategic goals, minimize waste, and generate timely data for continuous improvement. This analysis is crucial for long-term investors, as it provides insights into a company's ability to generate sustainable growth and returns (Danang, 2019).

Limbong's (2019) research shows that accounting information systems have a significant effect on profitability. Research by Yuscintara & Hendriani (2022), where the results of the research show that financial information systems have a positive effect on the effectiveness of financial performance as measured by profitability. And the research results show that the adoption of accounting information systems has a significant positive influence on MSME performance as measured by financial performance (income growth, profitability) and non-financial (customer satisfaction, market share).

Based on the description above, it is supported by differences in the results of previous research so that researchers are interested in conducting research with the title "The Effect of Implementing an Accounting System on Profitability in MSMEs in Medan Amplas District".

METHOD

This research uses quantitative data. Quantitative data is able data. It's used to study specific groups or samples of people. Data is gathered using structured tools, and analysis involves statistical methods to identify patterns and relationships. The purpose of using quantitative data is to test hypotheses that have been determined according to the characteristics of the research being conducted (Sugiyono, 2019). The quantitative data in this research is data from distributing questionnaires whose value is taken into account.

This study relied on primary data sources. This means the researchers collected information firsthand, directly from the participants involved in the research topic. They achieved this by conducting interviews and using questionnaires. The answers provided by the participants formed the core data for the research (Sugiyono, 2019).

The data collection method used by researchers is the technique of collecting data using questionnaires. Questionnaires are a common way to gather information. They consist of a series of questions or statements that people respond to in writing. Closed-ended questions are a type of questionnaire question where respondents choose from pre-defined answer choices. These answer

choices can range from simple categories (nominal) to rankings (ordinal) or even scaled values (interval and ratio) (Sugiyono, 2019).

Population refers to an area in general, namely objects or subjects that have certain characteristics and the quality is in accordance with what the researcher determines so that learning can be carried out and final conclusions can be drawn (Sugiyono, 2019). The population in this study was all 101 culinary Micro, small and medium enterprises in the Medan Amplas sub-district.

Instead of studying the entire population, the researchers used a smaller group, called a sample, that reflects the characteristics of the whole population. This specific sample was chosen using a purposive sampling method (Sugiyono, 2019). Purposive sampling, also known as judgmental sampling, is a research method where participants are chosen deliberately based on specific characteristics relevant to the study. Therefore, the sample chosen was deliberately determined based on certain criteria that had been determined by the researcher to obtain a representative sample (Sugiyono, 2019). The criteria for companies used as samples in this research include::

1. Micro, small and medium enterprises are business activities operating in the culinary sector.
2. Micro, small and medium enterprises have been established since 2021
3. Micro, small and medium enterprises have annual sales above 30 million.

Out of 101 culinary Micro, small and medium enterprises in the area, the researchers will focus on 36 specific businesses. These 36 Micro, small and medium enterprises were chosen because their annual income exceeds 30 million rupiah.

METHOD

Validity and Reliability Testing (Outer Model)

Husein (2015) emphasizes the importance of outer model analysis. This analysis checks if the chosen measurements accurately represent the concepts being studied (validity) and produce consistent results (reliability). It involves various calculations to ensure the quality of the measurement tools:

1. Convergent validity measures how well the individual questions (indicators) used in a survey or experiment capture the underlying concept (latent variable) they're supposed to represent. Ideally, the factor loading values for each indicator should be strong, exceeding 0.7.
2. Discriminant validity assesses how well a concept (construct) is distinct from other concepts being measured in the research. In simpler terms, it checks if your questions are measuring what they're intended to measure and not something else entirely. To ensure this, the factor loading value for an indicator should be higher for its intended construct compared to any other construct.
3. Composite reliability is a measure of how consistent and dependable the indicators used to represent a concept (construct) are. A value greater than 0.7 generally indicates that the construct has a high level of reliability.
4. Average Variance Extracted (AVE) reflects how much of the variance in the indicators used to measure a concept (construct) is actually due to the concept itself, rather than random error. A value of at least 0.5 indicates that, on average, more than half of the variance in the indicators is explained by the concept.
5. Cronbach's alpha is a statistical test commonly used to assess composite reliability, which we discussed earlier. It provides a numerical value to indicate how consistent the indicators used to measure a concept are. Generally, a minimum value of 0.6 suggests acceptable composite reliability.

Hypothesis Testing (Inner Model)

1. R-squared is a measure that explains how much of the variance in the dependent variable (endogenous construct) is predictable by the independent variables in the model. Husein (2015) classifies R-squared values into three categories, namely 0.67 as substantial; 0.33 as moderate and 0.19 as weak
2. Statistical Test

Husein (2015) Hypothesis testing helps us assess the likelihood that a certain condition (the null hypothesis, H_0) holds true. We do this by analyzing two key statistical values: the t-statistic and the p-value. If the t-statistic is greater than 1.96 (in absolute value), we tend to reject the null hypothesis (H_0) and accept the alternative hypothesis (Ha). This suggests the observed data is unlikely due to

random chance and supports the alternative explanation. If the p-value is less than 0.05, we also tend to reject the null hypothesis (H_0) and accept the alternative hypothesis (Ha). A low p-value indicates the observed data is statistically significant, meaning it's less likely due to random chance. The simple linear regression equation is usually written in the form of a formula, namely: $Y = \alpha - \beta X + e$.

RESULT

According to Husein (2015), Before relying on the data collected in a study, researchers perform outer model analysis. This step ensures the chosen measurement tools (surveys, questionnaires, etc.) are accurate (valid) and consistent (reliable) in capturing the concepts they're supposed to represent. The analysis involves various calculations to assess these qualities:

1. Convergent validity: Expected value > 0.7. Here are the resulting images:

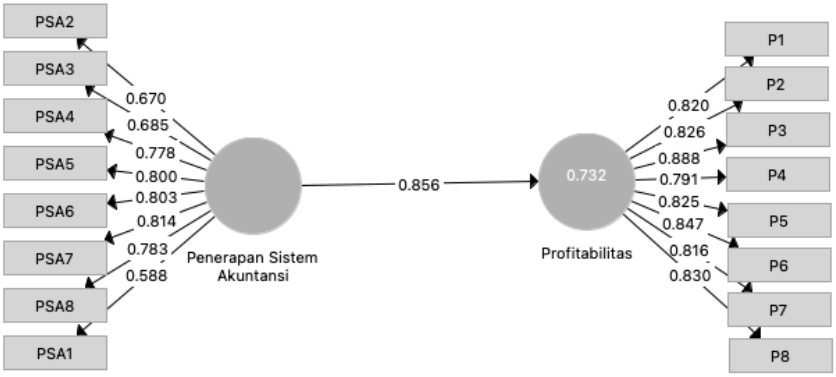

Figure 1. Results of Stage I Data Processing Picture

*Source: Data processed by SEMPLS (2024**)***

The study examined the validity of the measurement model by looking at the correlation between individual questions (items/instruments) and the underlying concepts (constructs) they represent. A strong correlation, indicated by a loading factor value greater than 0.7, is desirable. The initial analysis of the data related to the accounting system implementation variable revealed that three instruments (PSA1, PSA2, and PSA3) had loading factor values below 0.7, suggesting weak correlations. In contrast, all instruments used to measure profitability had loading factors exceeding 0.7. Since values below 0.7 indicate poor convergent validity, these three instruments were removed from the model. To achieve the desired level of convergent validity (loading factors > 0.7), the researchers conducted a second round of data processing.

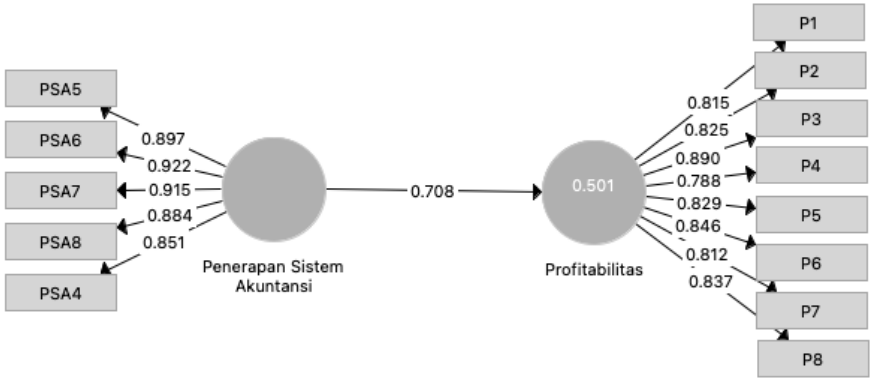

Figure 2. Stage II data processing Picture

After removing the problematic instruments (those with loading factors below 0.7), the remaining instruments used to measure the accounting system implementation variable all had improved values. These revised values now meet the established criteria of exceeding 0.700, indicating a strong correlation with the underlying concept. Based on the table on accounting system implementation variables, the largest loading factor value is found in the PSA6 statement

of 0.922 which contains the statement "The Accounting System immediately releases the amount of profit and assets immediately after it is updated". In the profitability variable, the largest loading factor value is found in statement P3 of 0.890 which contains the statement "I always compare my turnover every year using an accounting system".

2. **Discriminant validity**

Table 1. Fornell-Larcker Criterion Discriminant Validity

	Implementation of the Accounting System	**Profitability_**
Implementation of the Accounting System	0.894	
Profitability _	0.708	0.831

The table results show that each indicator within a construct has a stronger connection (higher loading value) to its intended concept than to any other concept in the study. This indicates good discriminant validity, meaning the constructs (latent variables) are distinct from each other. In simpler terms, the questions designed to measure a specific concept are better at capturing that concept than any other concept being measured.

3. **Composite reliability is a measurement that if the reliability value is > 0.7 then the construct value has a high reliability value.**

Table 2. Composite reliability, Average Variance Extracted (AVE), Cronbach alpha

	Cronbach's Alpha	*rho_A*	*Composite Reliability*	*Average Variance Extracted (AVE)*
Implementation of the Accounting System	0.937	0.939	0.952	0.8
Profitability _	0.936	0.941	0.947	0.69

The table shows the results of a composite reliability test. This test checks the consistency of the measures used to represent each concept (variable) in the study. A value greater than 0.7 is considered reliable. According to the table, both variables, 'application of the accounting system' (0.952) and 'profitability' (0.947), have values exceeding 0.7. Therefore, we can be confident that the measures used to assess these concepts are consistent and reliable.

4. **Average Variance Extracted (AVE) is an average variance of at least 0.5.**

The table displays the results of the Average Variance Extracted (AVE) test. This test assesses how much of the variation in the indicators used to measure each concept (variable) is actually due to the concept itself, rather than random error. A value greater than 0.7 is generally considered good. While both variables, 'application of the accounting system' (0.8) and 'profitability' (0.69), meet the criteria, the profitability variable falls slightly below the preferred threshold of 0.7.

5. **Cronbach alpha is a calculation to prove composite reliability results where the minimum value is 0.6.**

The table shows the results of Cronbach's alpha test, which assesses the internal consistency of the measures used to represent each concept (variable) in the study. A value greater than 0.6 generally indicates good internal consistency. Based on the table, both variables, 'application of the accounting system' (0.937) and 'profitability' (0.936), have values well above 0.6. Therefore, we can be confident that the measures used to assess these concepts are internally consistent.

Research Data Analysis

Inner Model

This stage of the analysis focuses on examining the relationships between the underlying concepts (latent constructs) in the research model. Various calculations are involved in this process. One key measure is R-squared, which indicates how well the independent variables (predictors) in the model explain the variance in the dependent variable (explained variable):

Table 3. R Square Table

	R Square	**R Adjusted**
Profitability_	0.501	0.486

The table shows an R-squared value of 0.501. This can be interpreted in two ways, 50.1% of the variation in profitability can be explained by the implementation of the accounting system. In other words, the accounting system has a significant influence on profitability according to this model. The remaining 49.9% of the variation in profitability is likely due to other factors not considered in this study. These external factors could also be impacting profitability. So it can be said that the R Square of the profitability variable is moderate**.**

Hypothesis testing

Ha is accepted if the p value <0.05, such as:

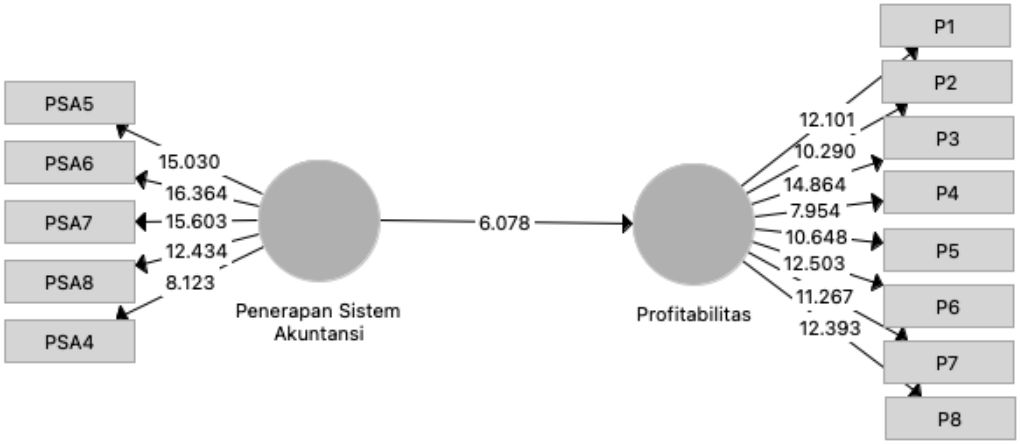

Figure 2. Hypothesis testing

Structural Model Drawing

Based on the structural model image, the research results obtained from the hypothesis test table are as follows:

Table 4. Hypothesis Testing Results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Staitstics (|O/STDEV|)	P Values
Implementation of the Accounting System -> Profitability _	0.708	0.702	0.116	6.078	0.000

To understand how the underlying concepts (latent variables) in our model relate to each other, we need to perform hypothesis testing on the connections between them. These connections are represented by path coefficients. SmartPLS uses a bootstrapping method to generate two key statistics for each path: p-values and t-statistics. This test is intended to test hypotheses consisting of the following hypotheses:

H0: Implementation of the Accounting System (X) has no significant effect on Profitability (Y) in MSMEs in Medan Amplas District

Ha: Implementation of the Accounting System (X) has a positive and significant effect on Profitability

(Y) in MSMEs in Medan Amplas District

Based on the table with a P-Value value of 0.000 < 0.05 or with a t-statistic of 6.078 > 1.96, H0 is rejected and Ha is accepted, which means that the Implementation of the Accounting System (X) has a positive and significant effect on Profitability (Y) in MSMEs in Medan Amplas District .

CONCLUSION

The significance value of the accounting system implementation variable - This means that the implementation of the accounting system - Vice versa. 50.01% of the profitability variable is influenced by the accounting system implementation variable, while the remaining 49.9% is explained by other variables not used in this research.

Based on the research results, it shows that what some MSMEs have implemented is good, so the advice that can be given is that MSMEs should record financial reports in accordance with SAK EMKM standards and MSMEs can implement recording of these financial reports using the UKM Accounting application to make it easier to prepare financial reports. . This is prioritized for MSMEs in this research specifically, and in general for MSMEs throughout the city of Medan.

For future researchers, they can do this with MSMEs in their respective regions so they can see what the condition of MSMEs is in each region, and what is expected in the future for MSMEs throughout Indonesia.

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