The Role of System User Training and Personal Technical Skills to Improve Accounting Information System Performance

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Abstract

Technological advances cause the business environment to experience rapid changes, especially in micro, small and medium enterprises (MSMEs). In the Indonesian economy, MSMEs are the largest business group and have proven to withstand the shocks of the economic crisis. This study aims to examine the role of system user training, personal technical skills, and organizational size in improving the performance of accounting information systems. The accounting information system in question is an application for managing the inventory of raw materials and calculating the cost of production based on a web developed by the researcher. MSME actors can use the application to manage inventory and determine the cost of production. This study uses a survey method with respondents of 34 employees in the production sector from 12 MSMEs in the Production Sector in Labuhanbatu Regency, North Sumatra Province, in 2022. Based on respondents' responses, obtained information that system user training is very important, organizational size is very appropriate, and personal technical ability and system performance accounting information is very high. The results showed that system user training and personal technical skills improved the performance of accounting information systems. Different results indicate that the organization size does not affect the performance of accounting information systems.

Keywords
Accounting information system performance, Organizational size, Personal technical skills, and System user training.

1. Introduction
Technological advances in the information age and globalization have caused the business environment to undergo rapid changes with intense competition (Mahagrita 2020). The development of information technology has a significant impact on the accounting information system in a company. The accounting information system is one of the sources that can provide information, such as financial information within a company or organization, goods counting activities, etc. The information can be used by parties interested in one of the fields of Micro, Small, and Medium Enterprises (MSMEs) (Amina et al. 2021).

Accounting information systems have a significant impact on those who implement them. One of the impacts of implementing an accounting information system is good decision-making for internal and external parties (Devi & Darma 2020). The digitization of accounting information systems must be structured to meet information needs effectively and efficiently. The application of a computerized system is expected to improve the performance of accounting information systems, which in turn will impact organizational performance (Unayah 2020). Assessment of the performance of the accounting information system is critical so that the accounting information system can provide maximum benefits for the company (Yasa et al. 2020).

One of the problems faced by MSMEs actors is an error in setting the right price. Problems like this cause failure in entrepreneurship (Maghfirah & BZ 2016). The way to avoid failure is to re-manage financial resources and understand the existing financial statements (Maghfirah & BZ 2016). MSMEs Production Sector in Labuhanbatu Regency calculates the cost of production simply only. They only calculate the cost of raw materials and labor. In contrast to factory overhead calculation, fixed and variable costs are not necessarily calculated in detail, so the cost of goods manufactured does not show the actual costs. This calculation will also have an impact on the cost of goods sold. The researchers developed an Application for Raw Material Inventory Management and Web-Based Cost of Production Calculation based on these problems. This application can support MSMEs accounting information systems, where users can input the purchase of raw materials, calculate the cost of production, sell finished products, and display the raw material stock book. Therefore, this study examines the role of system user training, personal technical skills, and organizational size in improving accounting information system performance. The accounting information system is an Application for Raw Material Inventory Management and Web-Based Cost of Production Calculation.

Accounting information system performance is the ability to produce the information needed to achieve specific goals (Saebani 2017). This performance can be seen through the satisfaction of users of accounting information systems and users of accounting information systems themselves. Accounting information system user satisfaction is how system users feel satisfied and believe in their accounting information system. The system is used to obtain information that is relevant to the needs, contains few errors (accurate), and can produce information immediately (timeliness) and complete. Meanwhile, users of accounting information systems are measured by the success of users of information systems, such as how often users use the system, their willingness to use it, and their understanding of the users who use it (Mahagrita 2020).

Personal technical ability is the ability, knowledge, and experience possessed by users of accounting information systems (Tiara & Fuadi 2018). Personal technical abilities can be seen through knowledge, abilities, and skills as users of information systems (Unayah 2020). The results of research conducted by Mahagrita (2020) and Tiara & Fuadi (2018) showed that personal engineering skills could affect the performance of accounting information systems. These results differ from the results of research conducted by Unayah (2020) and Septiani (2019). They get results that personal technical skills do not affect the performance of accounting information systems.

Organizational size is one of the organizational characteristics seen from a large number of employees in the company (Devi & Darma 2020). Devi & Darma (2020) and Putranto & Chasbiandani (2020) found that organizational size affects the performance of accounting information systems. In contrast, Yasa et al. (2020) and Praptiningsih et al. (2019) found that organizational size does not affect the performance of accounting information systems.

System user training is training to introduce the system to employees. This training is to learn how to run an accounting information system, the benefits of training, skills gained from training, advanced training for employees, and the importance of training for the organization concerned (Devi & Darma 2020). Unayah (2020) and Putranto & Chasbiandani (2020) found that education and training programs affect the performance of accounting information systems. These results differ from Saebani (2017) and Devi & Darma (2020) who found that education and training programs do not affect the performance of accounting information systems.

The following section discusses the literature review and hypothesis development. The third part describes the variables, samples, and data analysis used. The fourth section explains the characteristics and respondents' responses. Section five describes the results of data analysis and their interpretation. Section six describes the conclusions, limitations, and suggestions for practitioners and academics.

2. Literature Review
DeLone and McLean's Model of Success
DeLone & McLean's theoretical framework is known as the DeLone and McLean Model of Information System Success (D&M IS Success). Measuring the success of information systems with the D&M IS Success model uses six dimensions (Delone & Mclean 2003). First, System Quality is a characteristic of the information about the system itself, which indicates the product quality of the information system application. Second, Information Quality measures the quality of the output of the information system, namely the quality produced by the information system, especially in the form of reports. Three, Use refers to how often users use the information system. Four, User Satisfaction is an information system that is a response and feedback from users after using the information system.

Five, Individual Impacts are the influence of the existence and use of information systems on performance, decision making, and the degree of individual learning in the organization, including productivity, efficiency, and performance effectiveness. Six, Organizational Impacts are the impact of the information system on the performance of the organization where the information system is applied.

Accounting Information System Performance

The performance of the accounting information system is the ability of the system according to its function in producing the information needed to achieve specific goals, which can be seen through the satisfaction of users of accounting information systems and from users of the accounting information system itself (Saebani 2017). The performance of the accounting information system is said to be good if it meets eleven indicators (Saebani 2017; Setiawan 2020). First, the system can help the department function properly. Second, the system is essential to the success of the department's performance. Third, the system can increase satisfaction. Fourth, the system always provides the information the department needs. Fifth, systems in other applications (e.g., Spreadsheets) can be used to access information to meet the department's needs. Sixth, the available system is used frequently. Seventh, with the existing system, the department can carry out its duties more easily and efficiently. Eighth, the system can contribute to achieving organizational goals and missions. Ninth, most employees in the department are interested in using the existing system. Tenth, the system has been equipped with accurate and reliable information. Eleventh, system flexibility to adapt to current conditions.

Personal Technical Skills and Accounting Information System Performance

Personal technical skills is the ability, knowledge, and individual experience possessed by users of accounting information systems (Tiara & Fuadi 2018). Indicators of the ability of information system users can be seen through three things (Unayah 2020; Setiawan 2020), namely knowledge, abilities, and skills. Knowledge means that the system user has knowledge of accounting information systems and understands the knowledge of the duties of his job as an information system user. Ability means system users can run existing information systems, the ability to express information needs, the ability to describe how the system should be, the ability to do the job, and the ability to align work with tasks. Skills mean expertise in the work for which he is responsible and expertise in expressing his needs in the job. Good personal technical skills will encourage users to use accounting information systems so that the performance of accounting information systems will be higher. Through the knowledge possessed, users can understand the task and carry out their work as users of accounting information systems. With the operator's capabilities, they can operate information systems, express information needs and how the system should be and have the skills so that the performance of accounting implementation goes well (Unayah 2020).
H1: Personal technical skills positively affect accounting information system performance.

Organizational Size and Accounting Information System Performance

Organizational size is one of the organizational characteristics. An indicator of organizational size is said to be good if it meets three criteria (Devi & Darma 2020). First, the organization already has sufficient employees. Second, the organization already has employees following the needs of the organization. Third, the number of employees in the organization is adequate. A large organization, of course, has a better information system when compared to a small organization. The larger the size of an organization, it will have more employees for the operation of accounting information systems which in turn will be able to improve the performance of the information system. The number of employees aims to help each other if an agency has a problem. Employees who have difficulty completing their work can be assisted by other employees (Devi & Darma 2020).
H2: Organizational size positively affects accounting information system performance.

System User Training and Accounting Information System Performance

System user training is the company's training to introduce the system to employees (Devi & Darma 2020). Devi & Darma (2020) developed five indicators to measure the training program for users of accounting information systems. First is a training program to learn how to run an accounting information system from the agency concerned. Second, the advantage of having a training program for organization employees concerned. Third, the skills that employees gain from training programs. Fourth is an advanced training program for employees. The fifth is recognition of the importance of training for employees of the relevant agency. Employees are expected to gain more knowledge which can lead to increased performance. With training and education, system users can gain the ability to identify information requirements as well as system limitations and capabilities that can lead to improved performance (Setyawan 2013). Training is an effort to develop human resources, increase knowledge, and improve performance

skills. Training helps minimize errors when operating accounting information system applications so that users can enhance their performance (Devi & Darma 2020).

H3: System user training positively affects accounting information system performance.

3. Methods

This study uses quantitative methods. The data used are primary data by distributing questionnaires containing 23 statement items. Measurements in this study used a 5 Likert scale, ranging from 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree. The dependent variable is Accounting Information System Performance (AISP), measured by eleven indicators, as explained by Saebani (2017) and Setiawan (2020). The independent variables, namely Personal Technical Skills (PTS), Organizational Size (OS), and System User Training (SUT). Personal Technical Skills measured by two indicators, as explained by Unayah (2020) and Setiawan (2020). Organizational Size measured by three indicators, as explained by Devi & Darma (2020). System User Training measured by five indicators, as explained by Devi & Darma (2020).

The population in this study is the employees of MSMEs in the Production sector in Labuhanbatu Regency that use the accounting information system, namely an Application for Raw Material Inventory Management and Web-Based Cost of Production Calculation. The sample in this study was taken using a purposive sampling technique with two criteria. First, MSMEs employees in the Production sector in Labuhanbatu Regency use the Raw Material Management Application and Web-Based Cost of Production Calculation. Second, MSMEs owners in the Production sector in Labuhanbatu Regency with a minimum number of two employees. Based on these criteria, this study obtained 34 respondents. The data was first tested using the validity, reliability, data normality, heteroscedasticity, and multicollinearity tests. Next, respondents' responses were analyzed using a continuum line. Last, data were analyzed using multiple linear regression.

4. Data Collection

The researchers distributed questionnaires to 34 employees of MSMEs in the Production Sector in Labuhanbatu Regency. The researchers distributed the questionnaire on July 22, 2022, with the acceptance deadline on July 26, 2022. The researchers succeeded in distributing questionnaires to 50 respondents who were employees of 15 MSMEs in the Production Sector in Labuhanbatu Regency. Still, only 12 MSMEs returned the questionnaire, namely 45 respondents. Three MSMEs could not be contacted. Based on the examination of the questionnaire, which had complete answers for further analysis, only 34 respondents remained.

The respondent's data showed the characteristics of users of the Raw Material Inventory Management Application and Web-Based Cost of Production Calculation. The following is a figure of the Pie Chart of Respondents' Characteristics. Figure 1 shows the characteristics of respondents based on age. Figure 1 shows that 14 respondents were aged 23 years (41.18%), and the remaining 20 were aged 21 to 31. Figure 2 shows the characteristics of respondents by gender. Figure 2 shows that as many as 11 people are male (32%), and 23 are female (68%). This characteristic indicates that most MSME employees who use Raw Material Inventory Management Applications and Web-Based Cost of Production Cost Calculations are female. Figure 3 shows the characteristics of respondents based on their last education. Figure 3 shows that 11 people have a high school education (32%), ten people have a diploma (30%), and 13 people have a bachelor's degree (38%). These characteristics indicate that most MSME actors who use the Raw Material Inventory Management Application and Web-Based Cost of Production Cost Calculation have a bachelor's degree. Figure 4 shows the characteristics of respondents by type of business. Figure 4 shows that 34 respondents (100%) work in MSMEs in the kind of production business.
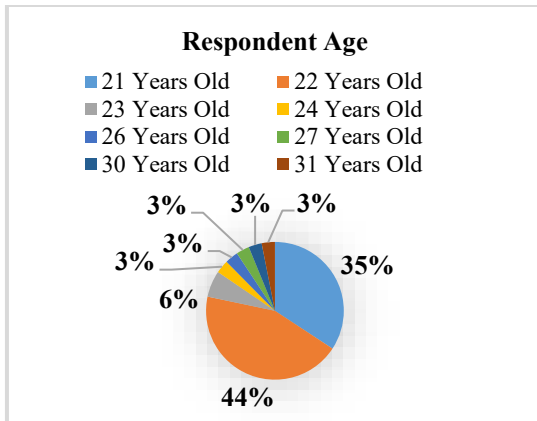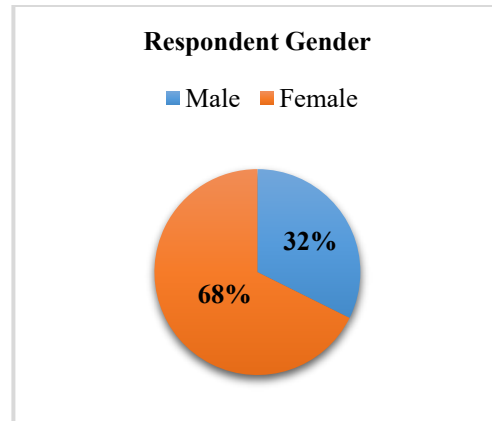
Respondent Age

- 21 Years Old
- 22 Years Old
- 23 Years Old
- 24 Years Old
- 26 Years Old
- 27 Years Old
- 30 Years Old
- 31 Years Old

Figure 1. Respondent Age

Respondent Gender

- Male
- Female

Figure 2. Respondent Gender

Respondent Education

- Senior High School
- Associate Degree
- Bachelor Degree

Figure 3. Respondent Education

Respondent Business

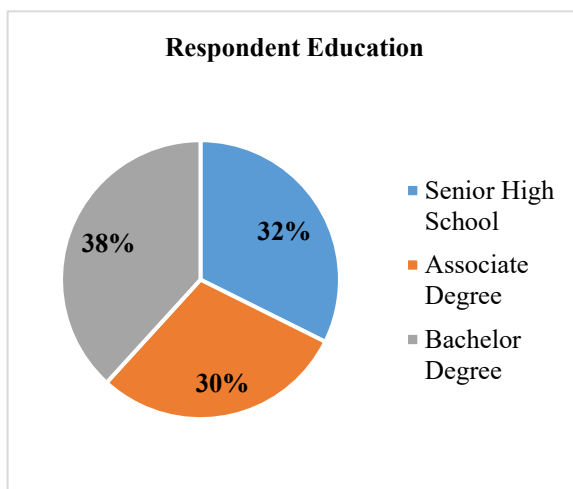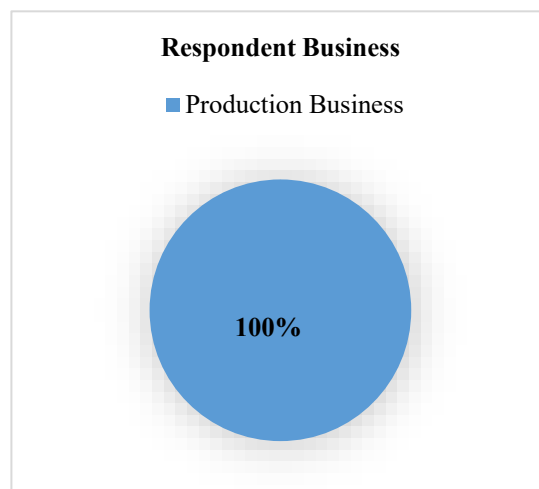- Production Business

Figure 4. Respondent Business

Table 1. The Score of Respondents' Responses

No	Variables	Response	Ideal Score	Percentage	Category
1.	Accounting Information System Performance	1632	1870	87%	Excellent
2.	Personal Technical Skills	609	680	90%	Excellent
3.	Organizational Size	459	510	90%	Excellent
4.	System User Training	754	850	89%	Excellent

Source: Processed data (2022)

Table 1 shows that the score of respondents' responses to the Accounting Information System Performance is 87%, meaning that the Accounting Information System Performance is included in the excellent category. This category implies that the application of accounting information systems, namely Raw Material Inventory Management Applications and Web-Based Cost Production Calculations, can be said to be successful. The score of respondents' responses to Personal Technical Skills is 90%, meaning that the technical skills of system users is included in the excellent category. This category implies that the respondent can operate the Application of Raw Material Inventory Management and Web-Based Cost of Production Calculation very well. The respondents' responses score to the Organization Size is 90%, meaning that the organization's size is included in the excellent category. This category implies that the organization has enough employees according to the needs of the job position. The respondent's response score for system user training is 89%, which is included in the excellent category, meaning that the respondent is very satisfied with the training received. Thus, the respondents were very satisfied with the training on MSMEs in Labuhanbatu Regency using the Raw Material Inventory Management Application and Web-Based Cost of Production Calculation.

5. Results and Discussion

Based on the results of the validity test, all questionnaire statement items are valid because of the r Count ≥ r Table. The value of Cronbach's Alpha Accounting Information System Performance (AISP) is 0.914, Personal Technical Ability (PTA) is 0.719, Organizational Size (OS) is 0.660, and System User Training (SUT) is 0.860. Cronbach's Alpha is greater than 0.60. The test results also show that the data are normally distributed, and pass the heteroscedasticity and multicollinearity tests.

Table 2 shows the results of testing the effect of the independent variable on the dependent variable. The F-statistics results show a simultaneous influence of personal technical ability, organizational size, and system user training on the performance of accounting information systems. The coefficient of determination shows a value of 0.658, meaning that personal technical ability, organizational size, and system user training can explain the performance of accounting information systems by 65.8%, and other variables explain the rest.

Table 2. Regression Results

Variable	Coefficient	Std. Error	t-Statistic	Probability
C	0.617	0.528	1.168	0.252
PTA	0.542	0.172	3.153	0.004
OS	-0.096	0.206	-0.465	0.645
SUT	0.408	0.197	2.070	0.047
F-statistic	22.131			0.000
Adjusted R^2	0.658			

Source: data processing results (2022)

Table 2 also shows the results of testing the three hypotheses. The results of testing the first hypothesis show that H1 is supported. The results show that the ability of personal techniques positively affects accounting information system performance. These results indicate that the higher the knowledge possessed by users of accounting information systems, the higher the performance of accounting information systems. Good personal technical skills will encourage users to use accounting information systems so that the performance of accounting information systems will be higher. With these abilities, employees can operate information systems, express information needs, and express how the system should work. This study's results align with research conducted by Mahagrita (2020) and Tiara & Fuadi (2018).

The results of testing the second hypothesis show that H2 is not supported. These results mean that the organization's size does not affect accounting information system performance. These results indicate that the size of the MSMEs does not affect the performance of the accounting information system. This finding is thought to be due to a lack of synergy between employees in the organization. If one employee has difficulty using the accounting information system, the other party cannot help. This study's results align with research conducted by Yasa et al. (2020) and Praptiningsih et al. (2019) that organizational size cannot affect the performance of accounting information systems.

The results of testing the third hypothesis show that H3 is supported. The results show that the system user training positively affects accounting information system performance. These results indicate that the more often the system user training is held by the company, the more the performance of the accounting information system will be. With education and training programs organized, employees' ability can increase because, in education and training programs, the latest materials and regulations are usually provided so that employees can quickly accept frequently updated applications. This study's results align with research conducted by These results indicate that the more often the system user training is held by the company, the more the performance of the accounting information system will be. With education and training programs organized, employees' ability can increase because, in education and training programs, the latest materials and regulations are usually provided so that employees can quickly accept frequently updated applications. This study's results align with research conducted by Unayah (2020) and Putranto & Chasbiandani (2020) that education and training programs affect the performance of accounting information systems.

6. Conclusion

This study aims to determine the characteristics of MSME respondents in Labuhanbatu Regency. This study examines the effect of personal technical skills, organizational size, and system user training on accounting information system performance using Raw Material Inventory Management Applications and Web-Based Cost of Production

Calculations. Characteristics of respondents indicate that the majority of MSME employees are 23 years old, female, and have a bachelor's degree. Descriptive analysis shows that personal technical skills, organizational size, system user training, and accounting information system performance are included in the excellent category. The test results show that the ability of personal engineering and system user training positively affects accounting information systems performance. Different results indicate that the organization size does not affect accounting information systems performance.

This study only limited respondents to MSMEs in Labuhanbatu Regency, North Sumatra province, Indonesia. Further researchers can replicate this research using the same application in Langkat Regency, Deli Serdang Regency, Mandailing Natal Regency, and others. Personal technical skills, organizational size, and system user training can explain the accounting information system performance by 65.8%, and other variables explain the rest. Therefore, further researchers are expected to add variables, such as user involvement in system development, user education, and user experience. This study has not proved the effect of organizational size on the performance of accounting information systems. Further research can use different indicators to measure the organization's size, such as the presence of employees who have fulfilled their job descriptions.

MSMEs in the Production Sector in Labuhanbatu Regency are expected to provide continuous system user training so they can use the existing accounting information system optimally. MSME owners are expected to employ employees who can use accounting information systems. The Department of Cooperatives and MSMEs in Labuhanbatu Regency is expected to guide MSMEs to keep up with technological developments and digitize their business and financial management.

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Biography

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