The Role of User Competence in the Implementation of Accounting Information Systems and Its Impact on the Quality of Accounting Information

Achmad Fadjar
Irfansyah Riyanto
Widia Septiana

DOI: https://doi.org/10.37178/ca-c.23.1.407

Achmad Fadjar, Widyatama University Bandung, Indonesia.
Email: achmad.fadjar@widyatama.ac.id

Irfansyah Riyanto, Widyatama University Bandung, Indonesia.
Email: irfansyah.riyanto@widyatama.ac.id

Widia Septiana, Widyatama University Bandung, Indonesia.
Email: widia.septiana@widyatama.ac.id

ABSTRACT

This research is a case study at PT Bersama Zatta Jaya because incorrect or incomplete information is still found from the accounting information system used by the company. The success of the implementation of information systems can be influenced by several factors including the competence of human resources. Information systems specialists who have the competence, skills and experience to manage the technical and behavioral aspects of information systems are the driving force for the success of high-quality information systems. This study aims to determine the effect of competence on the successful implementation of accounting information systems and their impact on the quality of accounting information.

The objects in this study are competence, accounting information systems and the quality of accounting information at PT Bersama Zatta Jaya. Data collection techniques by distributing questionnaires with the number of samples in this study as many as 50 respondents using path analysis techniques with SPSS tools.

The results of the study show that competence affects the success of the implementation of accounting information systems and accounting information systems affect the quality of accounting information

Keywords: *competence, accounting information system, quality of accounting information*

INTRODUCTION

According to [1] in general the technology in the company is currently very advanced and will most likely continue to grow in the future. So the system in the company is very important to continue to be researched. Along with the development

of an increasingly modern era, developing technology must be followed by medium-sized companies to support the needs of the company. With the development of technology in the modern era, information technology also experiences development. Information is also very much needed to run the company effectively. The right information-generating system will certainly produce reliable, accurate and fast information in its use. Information technology brings development to all levels of society, organizations and companies, has shifted from the use of manual information systems to computer-based information systems.

According to [2] the application and use of computer-based information systems does not only serve as a supporting tool to improve company performance, but has become the main weapon to face competition. Information is a very important concept in the information age, where information is needed by the community and is produced from an information system (IS). However, different conceptions of information often make assumptions compared to the information generated [3]. Every organization needs information to make effective decisions to gain or avoid losses in the organization[4]. To make effective decisions, organizations need to determine the decisions they make, the information they need to make decisions, and how they collect and process the data they need to make that information [5]. Information is data that has been processed into a form that is meaningful and functional for humans [6, 7].

One of the information needed by organizations is accounting and financial information generated through accounting information systems [8]. The purpose of the accounting information system itself according to Jogiyanto (2005) is "to support operational activities, to support decision making, as well as to fulfill accountability obligations." This goal cannot work properly if the company's accounting information system is not of high quality. According to [9]"information systems that fall into the quality category are those that are efficient, flexible, easily accessible, and timely". Accounting information systems in business organizations become a useful tool to improve efficiency and support organizational competitiveness through accounting and financial information generated by the system and then used by management [9]. The system's ability to provide management with high-quality information is critical to organizational success [10].

[11], quality data is also needed which is used to make meaningful decisions quickly and precisely based on completeness, reliability and accessibility. [12] stated that quality information comes from quality data which has characteristics including: completeness, accuracy, conformity with expectations, consistency, logic, coherence, timeliness, and accessibility. [13] state that data quality is defined as suitability for data use or also called information quality, where information quality comes from data quality that has dimensions such as consistency, accuracy, completeness or timeliness. The quality of the accounting information system can be influenced by several factors including the competence of human resources. [14] explained that "the existence of information systems specialists who have the competence, skills and experience to manage the technical and behavioral aspects of information systems is the key to the success of high-quality information systems".

One of the information systems implemented in the company is the Accounting Information System (AIS). In every company SIA plays an important role in all areas. SIA provides important information related to the policies taken, direction and objectives as well as the internal control of a company. According to [15] Accounting Information Systems help company management to collect financial data, manage it into useful information for users, and produce financial reports. A good and effective AIS enables company management and interested parties to get information quickly and accurately about the company. The use of information systems, among others, helps companies become more competitive and able to compete with others. All companies must provide information from the results of the accounting process each

period to meet the financial information needs of both internal and external stakeholders of the company [16, 17]

The implementation of AIS is an important asset for the company. In his writings [18]states that theoretically the success of an accounting information system is influenced by individual and system factors (hardware, software, networks, procedures, operations, etc). Then in the same journal [18] also said that Individual factors relate to people who use accounting information systems who have human aspects in themselves and have desires, wills, motives, likes and dislikes, and actually use accounting information systems, he said, will affect behavior at that time.

The Problem's Formulation

Based on the description of the background above, the researchers tried to formulate the following problems:

1. What is the role of user competence in the application of accounting information systems
2. What is the role of user competence on the quality of accounting information moderated by the application of accounting information systems.

LITERATURE REVIEW

User Competence

Definition of Competence according to [19, 20] states that competence is a person's ability to complete a job correctly. Competence can also be viewed as a structured set of behaviors and has a guide for identification, evaluation and development of behavior in each employee where the combination is observed and measured through knowledge, skills, abilities and personal attributes contributing.

According to [21] Competence is the ability to perform or complete a job or task based on skills and knowledge and supported by the work attitude required by the job.

Meanwhile, according to [22] Competence is a combination of knowledge, skills, attitudes and other personal characteristics necessary to achieve success in the workplace, can be measured using agreed standards, and enhanced through training and development.

[23] Competence can be defined as the ability to respond appropriately to new situations. Based on some of the opinions above, it can be said that competence is knowledge, skills, attitudes, motivation, or personal characteristics that affect the success of one's work.

[24]said Competencies are attributes that are given to a person in relation to the effectiveness of individual performance at work, or have a causal relationship, or are related to the basic characteristics of individuals as cause and effect, and are used as criteria. or certain situations (Competencies are basic characteristics of an individual that are causally related to the so-called criteria of effectiveness and/or superior performance in a job or situation).

Based on this definition, some of the meanings contained in it are as follows:

Basic Traits Competence is a deep and unique part of a person who exhibits predictable behavior under various conditions of job performance.

Causality (related to cause and effect) means skills can cause or be used to predict someone's performance, which means if you are highly skilled, you will also be highly productive (as a result).

Criteria (reference criteria) used as standards by which skills will truly predict that a person can perform well, must be measurable and specific or standard.

Then according to [25] said:

"Competences are a popular technique for the evaluation of human resources in various organisations. They permit assessing and developing the abilities of employees that are most important for an organisation, permit separating the best employees from the worst, finding and attracting employees suitable for the

organisation, and linking the abilities of employees to strategic goals of an organisation.". Meanwhile, according to [26]said:

"Competence is one's capability to (according to certain formal or informal criteria) handle certain situations successfully or complete a job".

Application of Accounting Information System

The definition of an accounting information system according to [27]is a set of integrated physical and non-physical subsystems or components that are interconnected and work together to convert financial transaction data into financial information.

[28]explain Accounting descriptive information system is a system that collects, records, stores, and processes data to inform decision makers.

According to [27] Accounting information can be defined as an (integrated) set of both physical and non-physical subsystems/components that are interconnected and work in harmony with each other to process transactional data related to financial issues in financial information.[29, 30] An accounting information system is described as a special subsystem of an information system whose purpose is to collect, process, and display information related to the financial aspects of a business. [31] states that an accounting information system consists of many components: hardware, intelligent software, procedures, databases, software, information technology infrastructure, internal controls and security measures, and system developer performance. Things that interact to create synergies are intertwined with each other. The interactions between these mechanisms are designed to support the organization.[32]also stated that the accounting information system is the most widely used information system in business, where the process of recording, recording business transactions, making reports on the flow of funds through an organization historically and producing financial reports. Meanwhile [33] explains that the accounting information system focuses on non-financial issues, including financial data and information. Accounting information system also acts as a system that has a broad view of the accounting function as the organization's main producer and distributor of various types of information, Thus, an accounting information system is a set of data and processing procedures that generate the information required by users, and an accounting information system, a set of components, collects credentials, stores them for later use, and processes them for end users.

Quality of Accounting Information

According to [34] Put forward the quality of accounting information as follows: "Measuring the quality of accounting information systems reduces uncertainty in the underlying decisions and facilitates better planning of work. Management decisions are at their best when all factors influencing the decision are taken into account. When all factors are taken into account, the risk of error in decision making is reduced in management.

The quality of the accounting information used can be seen through the information produced by the institution. A quality of information seen from three principles, namely: timely, accurate and relevant. What is meant here is relevant means that an information must have benefits for its users. On time, it means that the information is presented according to the time specified to the recipient and is not too late. Accurate means that the information presented is free from errors and impartial [35]. According to [35], the success of the implementation of an accounting information system is crucial for the business world, because it is determined by the situation and conditions of the application of an accounting information system which, among others, are closely related to: (1) the company's environmental factors; (2) the content of the accounting information system used, such as mission, structure, technology and people; and (3) the process of implementing accounting information systems.

Framework

The Role of User Competence in the Implementation of Accounting Information Systems System users are important information resources in an organization to achieve strategic goals and gain competitive advantage, the ability of information system users must be taken into account [36]. Good user competence will encourage users to use accounting information systems so as to make accounting information systems better and more successful [37]

In the accounting information system, the user's capacity plays an important role, so we need experts in the field of accounting information systems who understand and can operate the system to present accurate accounting information [38]. Previous studies have shown the influence of user capabilities on the quality of accounting information systems, [39] found that user competence has a significant positive effect on the quality of accounting information systems.

The Role of User Competence in the Implementation of Accounting Information Systems and its implications for the Quality of Accounting Information

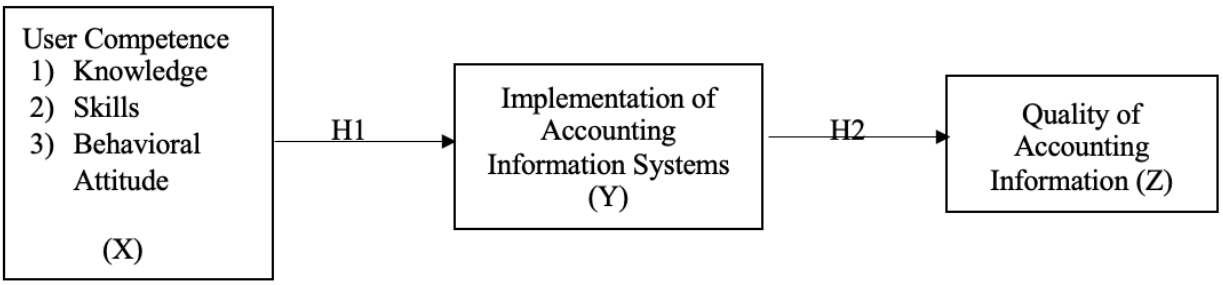
Information systems help provide accurate, timely, and relevant information to organizational executives to support effective decision-making processe [40]. An accounting information system was established with the main objective of converting accounting data from various sources into accounting information so that users of the information can use it to reduce risk in making decisions[41].

For this reason, accounting information systems are critical to organizational success, and in order to present high quality accounting information to organizational leaders, accounting information systems must be of high quality Previous research has shown the impact of the quality of accounting information systems on the quality of accounting information, [42] It has been found that the better the information system works, the more reliable and timely accounting information is provided.

To facilitate an understanding of the impact of competence on the successful implementation of accounting information systems and the quality of accounting information, it can be explained as follows.

Figure 1

Framework



Hypothesis

From the description above, the hypotheses proposed in this study are as follows:

H1: User competence plays a role in the application of accounting information systems.

H2: User competence plays a role in the quality of accounting information which is moderated by the application of the Accounting Information System.

RESEARCH METHODS

Population and Samples

Population is a generalized field consisting of objects, subjects with certain numbers and characteristics determined by researchers to be studied and then drawn

conclusions. The population of this research is the employees of PT Bersama Zatta Jaya, there are 50 employees.

The sample is part of the number and characteristics possessed by a population. The definition of the sample according to [23]the percentage of all members of the observed population. Sampling method is a sampling method to determine the sample to be used in research so that the estimated characteristic value can be obtained. The sampling method used in this study is the saturated sampling method [29]. In this study used samples from the entire population with a total of 50 respondents.

Descriptive Data Analysis

Data analysis activities in this study were carried out through the following stages:

1. Compile data; The preparation of the data is done by checking the completeness of the data starting from the identity of the respondents to filling in the data that is adjusted to the research objectives.
2. Checking the perfection and correctness of the data collected;
3. Data tabulation;

a. Gives a score to each item,
b. Adding up the scores on each item,
c. Change the data type, and
d. Compiling the ranking of scores on each research variable.

In assessing respondents' answers to the questions given, they use a Likert Scale, which is a type of scale that was coined by Rensis Likert it is used to measure the personality, opinions, and thoughts of individuals or groups about a social phenomenon.

Verification Data Analysis

According to [43] verification analysis is a research method that aims to test a theory, and research seeks to extract the status of the hypothesis in the form of new scientific information, conclusions about whether the hypothesis is accepted or rejected. To test the hypothesis, we validated the data analysis using statistical tests that focused on disclosing the behavior of survey variables. The following are some of the tests used in verification analysis.

Path Analysis Test

This study uses path analysis, which is an analysis that uses correlation and regression so that it can be seen that to arrive at the last dependent variable, you must go through a direct path or through an intervening variable [43]

The causal relationship system involves two types of variables, namely independent variables or better known as independent variables, variables which are usually symbolized by the letters X1, X2, X3..... Xn. And the dependent variable or variable that is affected is known as the dependent variable which is usually symbolized by the letters Y, Z, Y3..... Yn.

Hypothesis Test

H1 : Competence plays a role in the application of Accounting Information Systems

H2 : Competence plays a role in the quality of accounting information which is moderated by the application of the Accounting Information System

Coefficient of Determination

Analysis of the coefficient of determination will be used to test how much of the contribution shown by the path coefficient on each path diagram of the causal relationship between variables X to Y, Z and Y to Z which will then be expressed as a percentage.

RESEARCH RESULTS AND DISCUSSION

Research Result

Respondents' Perceptions of Competence

The following are the responses of respondents regarding competence at PT Bersama Zatta Jaya as outlined in the following table:

Table 1

Competency Variable Recapitulation

No	Variables	Average	Description
1	Knowledge	3.35	Quite Good
2	Skill	3.12	Quite Good
3	Attitude	3.12	Quite Good
	Amount	9.59	
	Total	3.20	Quite Good

From table 1, the overall average value is 3.20, which means it is quite good because it is in the interval 2.60 – 3.39. This shows that the competence at PT Bersama Zatta Jaya is considered good enough so that it needs to be maintained.

Respondents' Perceptions regarding the Implementation of Accounting Information Systems

Following are the responses of respondents regarding the application of accounting information systems to the quality of accounting information at PT Bersama Zatta Jaya as outlined in the following table:

Table 2

Variable Recapitulation of Application of Accounting Information Systems

No	Variables	Average	Description
1	Device	3.43	Good
2	System Implementation	3.23	Quite Good
3	Evaluation of System Implementation	3.41	Good
	Amount	10.07	
	Total	3.36	Quite Good

From table 1.2, the overall average value is 3.36, which means it is quite good because it is in the interval 2.60 – 3.39. This shows that the application of the accounting information system at PT Bersama Zatta Jaya is considered good enough so that it needs to be maintained.

Respondents' Perceptions of the Quality of Accounting Information

Following are the responses of respondents regarding the quality of accounting information at PT Bersama Zatta Jaya as outlined in the following table:

Table 2

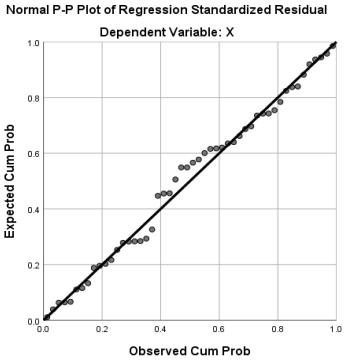
Recapitulation of Accounting Information Quality Variables

No	Variables	Average	Description
1	Output Availability of Accounting Information	3.17	Good
2	Feedback Availability of Accounting Information	3.22	Quite Good
3	Efficiency and Effectiveness	3.13	Good
4	Quality Availability of Accounting Information	3.20	Quite Good
	Amount	12.72	
	Total	3.18	Quite Good

From table 1.5 obtained the overall average value of 3.18, which means it is quite good because it is in the interval 2.60 – 3.39. This shows that the quality of accounting information at PT Bersama Zatta Jaya is considered good enough so that it needs to be maintained.

Classic Assumption Test

1. Normality Test



Graph 2. Normality of Data

From the graph, it can be seen that the dots spread around the diagonal line, and their distribution follows the direction of the diagonal line. So the regression model is feasible to use for predicting the quality of accounting information based on the input of competence variables and the application of accounting information systems. Thus, the data can be said to meet the requirements for multiple linear regression analysis.

Heteroscedasticity Test

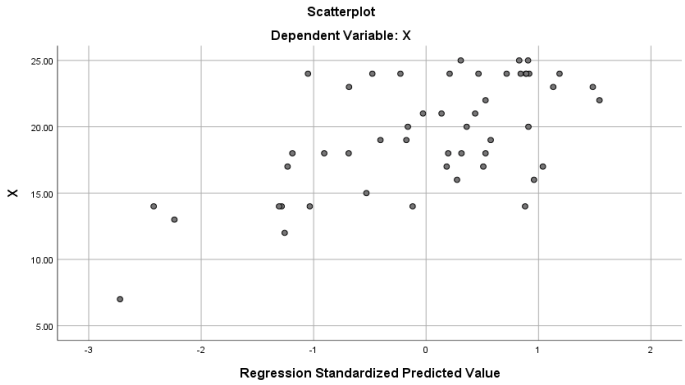


Figure 2

Heterocodastisity Test Results

Source: output data processed by SPSS 26.0

Based on the picture above, it can be seen that there is no clear pattern, and the points spread above and below the number 0 on the Y axis. Thus, it can be concluded that there is no heteroscedasticity.

Path Analysis

Table 4

Determine the Correlation Matrix

No	Variables	X	Y	Z
X	Pearson Correlation	1	0.592**	0.593**
	Sig. (2-tailed)		0.000	0.000
	N	50	50	50
Y	Pearson Correlation	0.592**	1	0.597**
	Sig. (2-tailed)	0.000		0.000
	N	50	50	50
z	Pearson Correlation	0.593**	0.597**	1
	Sig. (2-tailed)	0.000	0.000	
	N	50	50	50

Source: output data processed by SPSS 26.0

From the results of the SPSS output above, a correlation matrix between variables can be arranged as follows:

Table 5

Correlation Between Variables

	X	Y	Z
X	1.000	0.592	0.593
Y	0.592	1.000	0.597
Z	0.593	0.597	1.000

Table 3

Determine R square

Model	R	R Square	Adjusted R Square	Std, Error of the Estimate
1	0.592[a]	0.350	0.336	0.6844

a, Predictors: (Constant), Y

Source: output data processed by SPSS 26.0

In the table above, it can be seen that the R square value of 0.592 means that the influence of the X variable, namely competence on the Y variable, namely the application of the accounting information system at PT Bersama Zatta Jaya is 0.592 or 59.2%.

Calculating the path coefficients of other variables outside the model, namely:

$X 4 = \sqrt{(1 - 0{,}592)} = 0{,}639$

This means that the influence of other variables outside those studied by the author is 0.639 or 63.90%.

Pathway Hypothesis Testing

1. Overall Test

With the test criteria if $F_{count} > F_{\alpha;k;(n-k-1)}$ then Ho is rejected

Table 7

ANOVA

Model		Sum of Square	df	Mean Square	F	Sig
1	Regression	12.100	1	12.100	25.836	0.000[a]
	Residual	22.480	48	0.468		
	Total	34.580	49			

a, Predictors: (Constant), Y

Source: output data processed by SPSS 26.0

From the table above, it can be seen that the F value is 25.836 while the F table value (48; 2) is 3.19, meaning that F count is greater than F table so that Ho is rejected. PT Bersama Zatta Jaya.

Table 7

Determine the Path Coefficient

Model		Unstandardized B	Coefficients Std. Error	Coefficients Beta	t	Sig
1	(Constant)	0.653	0.514		1.27	0.210
	Y	0.733	0.144	0.592	5.08	0.000
2	(Constant)	0.607	0.483		1.26	0.215
	Y	0.457	0.169	0.369	2.71	0.009
	z	0.319	0.116	0.373	2.74	0.009

From the table above, it can be seen that the path coefficient matrix is as follows:

ρyx = 0,592
ρyz = 0,369
ρzx = 0,373

2. Individual Test Path Coefficient ρyx

$$H_0 : \rho_{yx_i} = 0$$
$$H_1 : \rho_{yx_i} \neq 0$$

In Table 4.24 it can be seen ρ-value (sig column) = 0,000 smaller than 0,05 thus Ho is rejected.

Path Coefficient ρyz

$$H_0 : \rho_{yx2} = 0$$
$$H_1 : \rho_{yx2} \neq 0$$

In Table 4.24 it can be seen ρ-value (sig column) = 0,009 smaller than 0,05 Ho is rejected.

Path Coefficient ρzx

$$H_0 : \rho_{yx3} = 0$$
$$H_1 : \rho_{yx3} \neq 0$$

In Table 4.24 it can be seen that ρ-value (sig column) = 0,009 smaller than 0,05 thus Ho is rejected.

Partial Hypothesis Testing

Table 7

Coefficient

Model		Unstandardized B	Coefficients Std. Error	Coefficients Beta	t	Sig
1	(Constant)	0.653	0.514		1.27	0.210
	Y	0.733	0.144	0.592	5.08	0.000
2	(Constant)	0.607	0.483		1.26	0.215
	Y	0.457	0.169	0.369	2.71	0.009
	z	0.319	0.116	0.373	2.74	0.009

1. Ho: $\rho_{YX1} = 0$ Competence has no effect on the application of accounting information systems at PT Bersama Zatta Jaya.

Ha: $\rho_{YX1} \neq 0$ Competence affects the application of accounting information systems at PT Bersama Zatta Jaya.

Accept Ho, if $| t_{count} | < t_{\alpha;(n-k-1)}$

Reject Ho, if $| t_{count} | > t_{\alpha;(n-k-1)}$

In the table above, it is known that t count is 5.083 > t table 2.010, meaning that competence affects the application of accounting information systems at PT Bersama Zatta Jaya.

2. Ho: $\rho_{YX1} = 0$ Competence does not affect the quality of accounting information at PT Bersama Zatta Jaya.

Ha: $\rho_{YX1} \neq 0$ Competence affects the quality of accounting information at PT Bersama Zatta Jaya.

Accept Ho, if $| t_{count} | < t_{\alpha;(n-k-1)}$

Reject Ho, if $| t_{count} | > t_{\alpha;(n-k-1)}$

In the table above, it is known that t count is 2.707 > t table 2.010, meaning that competence affects the quality of accounting information at PT Bersama Zatta Jaya.

3. Ho: $\rho_{YX1} = 0$ the accounting information system has no effect on the quality of accounting information at PT Bersama Zatta Jaya.

Ha: $\rho_{YX1} \neq 0$ Accounting information systems affect the quality of accounting information at PT Bersama Zatta Jaya

Accept Ho, if $| t_{count} | < t_{\alpha;(n-k-1)}$

Reject Ho, if $| t_{count} | > t_{\alpha;(n-k-1)}$

In the table above, it is known that t count is 2.742 > t table 2.010, meaning that the application of accounting information systems affects the quality of accounting information at PT Bersama Zatta Jaya.

Simultaneous Hypothesis Testing

Ho: $\rho_{YX1}=0$; $\rho_{YX2}=0$; $\rho_{YX3} = 0$ there is no influence of competence on the quality of accounting information through the application of accounting information systems at PT Bersama Zatta Jaya.

Ha: $\rho_{YX1}\neq0$; $\rho_{YX2}\neq0$; $\rho_{YX3} \neq 0$ there is an influence of competence on the quality of accounting information through the application of accounting information systems at PT Bersama Zatta Jaya

Table 7

ANOVA

Model		Sum of Square	df	Mean Square	F	Sig
1	Regression	15.200	2	7.600	18.431	0.000
	Residual	19.380	47	0.412		
	Total	34.580	49			

In the table above, it is known that the calculated F value is 18.431 > F table 3.20, which means that there is a simultaneous influence of competence on the quality of accounting information through the application of an accounting information system at PT Bersama Zatta Jaya.

DISCUSSION

The Role of User Competence in the Implementation of Accounting Information Systems

User competence plays a role in the application of accounting information systems at PT Bersama Zatta Jaya. Competent human resources will increase the success of the implementation of accounting information systems. From the results of descriptive research, the competence of users of accounting information systems at PT Bersama Zatta Jaya is still quite good, this shows that the company needs to improve user competence so that it can become better, especially from the aspect of ability and attitude in implementing information systems in the company.

In line with the statement [38] below on accounting information systems, user competence plays an important role so that experts in the field of accounting information systems are needed who understand and can operate the system well in order to produce accounting information properly. This study is in line with previous research which has proven the effect of user competence on the quality of accounting information systems, [39] found that user competence has a significant positive effect on the quality of accounting information systems.

The Role of User Competence on the Quality of Accounting Information Moderated by the Implementation of Accounting Information Systems

The application of accounting information systems affects the quality of accounting information. This shows that the accounting information system has the main objective of processing accounting data from various sources into accounting information so that it can be used and also present quality accounting information to organizational managers. From the results of descriptive research, information is obtained that the quality of information generated by the application of accounting information systems is still in the fairly good category, this indicates that the quality of information produced must be improved in order to be better, especially in the aspect of feedback on the availability of accounting information and the availability of accounting information. still in the sufficient category while the other categories are good. While the application of accounting information systems based on the results of descriptive research shows good enough results, meaning that the application of accounting information systems in the company is not good or even very good, especially in the aspect of system implementation so it is reasonable to suspect that the resulting accounting information quality is only good enough.

Previous research has proven the influence of the quality of accounting information systems on the quality of accounting information, [44]found that the better the information system that is run, the more reliable and timely accounting information will be.

CONCLUSIONS AND SUGGESTIONS

Conclusion

1. User competence plays a role in the application of accounting information systems at PT Bersama Zatta Jaya. Thus, in the application of accounting information systems at PT Bersama Zatta Jaya, we need people who are experts in the field of accounting information systems, both knowledge, skills and user attitudes in operating accounting information systems.
2. User competence plays a role in producing quality accounting information after the implementation of the accounting information system. Thus the application of a good accounting information system can produce quality information that makes it easier for information users to reduce risk when making decisions.

Suggestion

1. Increasing user competence, especially skills and attitudes in implementing information systems through intensive training and development in accordance with company needs.
2. Conduct an evaluation by always carrying out the maintenance and development of the accounting information system so that in its application it can meet the needs of users in assisting decision making in accordance with its development.

REFERENCES

1. Ngemba, H.R. and H.K. Tjahjono, *The Influence of Management Information System E-Learning To Net Benefit In Yogyakarta Private University Using DElone and McLean's 2003 Model.* Room A, 2015: p. 113.

2. Akram, T., M. Sharif, and T. Saba, *Fruits diseases classification: exploiting a hierarchical framework for deep features fusion and selection.* Multimedia Tools and Applications, 2020. **79**(35): p. 25763-25783 DOI: https://doi.org/10.1007/s11042-020-09244-3.
3. Boell, S.K., *Information: Fundamental positions and their implications for information systems research, education and practice.* Information and Organization, 2017. **27**(1): p. 1-16 DOI: https://doi.org/10.1016/j.infoandorg.2016.11.002.
4. Shimizu, K. and M.A. Hitt, *Strategic flexibility: Organizational preparedness to reverse ineffective strategic decisions.* Academy of Management Perspectives, 2004. **18**(4): p. 44-59 DOI: https://doi.org/10.5465/ame.2004.15268683.
5. de Camargo Fiorini, P. and C.J.C. Jabbour, *Information systems and sustainable supply chain management towards a more sustainable society: Where we are and where we are going.* International Journal of Information Management, 2017. **37**(4): p. 241-249 DOI: https://doi.org/10.1016/j.ijinfomgt.2016.12.004.
6. Lee, J., et al., *Group value and intention to use—A study of multi-agency disaster management information systems for public safety.* Decision Support Systems, 2011. **50**(2): p. 404-414 DOI: https://doi.org/10.1016/j.dss.2010.10.002.
7. Hassan, Z.A. and Q.I.N. Al-Hussuna, *DIRECT VERBAL VERBS IN THE LETTERS OF SORROWS BY AL-RAFI'I: A PRAGMATIC STUDY.* PalArch's Journal of Archaeology of Egypt/Egyptology, 2021. **18**(18): p. 423-436.
8. Sori, Z.M., *Accounting information systems (AIS) and knowledge management: a case study.* American Journal of scientific research, 2009. **4**(4): p. 36-44.
9. Martinsons, M., R. Davison, and D. Tse, *The balanced scorecard: a foundation for the strategic management of information systems.* Decision support systems, 1999. **25**(1): p. 71-88 DOI: https://doi.org/10.1016/S0167-9236(98)00086-4.
10. Gorla, N., T.M. Somers, and B. Wong, *Organizational impact of system quality, information quality, and service quality.* The Journal of Strategic Information Systems, 2010. **19**(3): p. 207-228 DOI: https://doi.org/10.1016/j.jsis.2010.05.001.
11. Larburu, N., et al., *An ontology for telemedicine systems resiliency to technological context variations in pervasive healthcare.* IEEE journal of translational engineering in health and medicine, 2015. **3**: p. 1-10 DOI: https://doi.org/10.1109/JTEHM.2015.2458870.
12. Tani, A., L. Candela, and D. Castelli, *Dealing with metadata quality: The legacy of digital library efforts.* Information Processing & Management, 2013. **49**(6): p. 1194-1205 DOI: https://doi.org/10.1016/j.ipm.2013.05.003.
13. Vaziri, R., M. Mohsenzadeh, and J. Habibi, *TBDQ: A pragmatic task-based method to data quality assessment and improvement.* PloS one, 2016. **11**(5): p. e0154508 DOI: https://doi.org/10.1371/journal.pone.0154508.
14. Duggan, E.W. and H. Reichgelt, *The panorama of information systems quality*, in *Measuring information systems delivery quality*. 2006, IGI Global. p. 1-27.
15. Sari, N.Z.M., M. Se, and H.D. Purwanegara, *The effect of quality accounting information system in Indonesian government (BUMD at Bandung area).* Research Journal of Finance and Accounting, 2016. **7**(2).
16. Jasim, Y.A. and M.B. Raewf, *Information Technology's Impact on the Accounting System.* Cihan University-Erbil Journal of Humanities and Social Sciences, 2020. **4**(1): p. 50-57 DOI: https://doi.org/10.24086/cuejhss.v4n1y2020.pp50-57.
17. Hornung, J.J., *Comments on "Ornithocheirus hilsensis" Koken, 1883–One of the earliest dinosaur discoveries in Germany.* PalArch's Journal of Vertebrate Palaeontology, 2020. **17**(1): p. 1-12.
18. Iskandar, D., *Analysis of factors affecting the success of the application of accounting information system.* International Journal of scientific & Technology research, 2015. **4**(2): p. 155-162.
19. Prior, M. and A. Lupia, *Money, time, and political knowledge: Distinguishing quick recall and political learning skills.* American Journal of Political Science, 2008. **52**(1): p. 169-183 DOI: https://doi.org/10.1111/j.1540-5907.2007.00306.x.
20. Kareem, S.M.A. and W.A. Thabet, *THE EFFECT OF THE COLLAPSE OF THE TSARDOM EMPIRE AND THE ATTITUDE OF THE TEMPORAL RUSSIAN BOURGEOIS GOVERNMENT TOWARDS THE POLISH CASE (FEBRUARY-NOVEMBER, 1917.* PalArch's Journal of Archaeology of Egypt/Egyptology, 2021. **18**(18): p. 414-422.
21. Saluy, A.B. and C. Wibowo, *The Influence of Motivation and Competency to Performance of Civil Servants and the Effect of Working Satisfaction in the Directorate Environment of TNI Laws.* Scholars Journal of Economics, Business and Management, 2018. **5**(6): p. 454-464.
22. Mesra, T. *The Role of Human Resource Competency in Improving Logistic Performance*. IOP Publishing.

23. Lundkvist, A.H. and M. Gustavsson, *Conditions for employee learning and innovation–interweaving competence development activities provided by a workplace development programme with everyday work activities in SMEs.* Vocations and Learning, 2018. **11**(1): p. 45-63 DOI: https://doi.org/10.1007/s12186-017-9179-6.
24. Bird, A., J.S. Osland, and H.W. Lane, *Global competencies: An introduction.* The Blackwell handbook of global management: A guide to managing complexity, 2004: p. 57-80.
25. Miles, R.E. and C.C. Snow, *Designing strategic human resources systems.* Organizational dynamics, 1984. **13**(1): p. 36-52 DOI: https://doi.org/10.1016/0090-2616(84)90030-5.
26. Chryssolouris, G., D. Mavrikios, and D. Mourtzis, *Manufacturing systems: skills & competencies for the future.* Procedia CIRp, 2013. **7**: p. 17-24 DOI: https://doi.org/10.1016/j.procir.2013.05.004.
27. Susanto, A., *What factors influence the quality of accounting information.* International Journal of Applied Business and Economic Research, 2015. **13**(6): p. 3995-4014.
28. Fitrios, R., *Factors that influence accounting information system implementation and accounting information quality.* International Journal of Scientific & Technology Research, 2016. **5**(4): p. 192-198.
29. Shagari, S.L., A. Abdullah, and R. Mat Saat, *The influence of system quality and information quality on Accounting Information System (AIS) effectiveness in Nigerian bank.* International Postgraduate Business Journal, 2015. **58**(74): p. 58-74.
30. Kazem, A.A. and A.S. Shaker, *ATTEMPTS BY KING WILLIAM III TO FORM A REGULAR AND PERMANENT ARMY IN ENGLAND 1689-1702.* PalArch's Journal of Archaeology of Egypt/Egyptology, 2021. **18**(18): p. 389-402.
31. Wisna, N., *The Effect of Information Technology on the Quality of Accounting Information system and its impact on the Quality of Accounting Information.* Research Journal of Finance and Accounting, 2013. **4**(15): p. 2222-2847.
32. Marakas, G.M. and J.A. O'Brien, *Introduction to information systems*. 2013: McGraw-Hill/Irwin New York, NY.
33. Simkin, et al., *Core Concepts of Accounting Information Systems, 13th Ed, John Wiley & Sons, Inc., United States of America.* 2015.
34. Ramadhani, S., M. Suhardiyah, and Y. kurnia Firdausia, *Analysis and Design of a Computerized Sales System in Equipment Trading Company Case Study Project at CV. The Gift of Jaya Madiri.* Journal of Sustainability Bussiness Research (JSBR), 2021. **2**(3): p. 172-179.
35. Rahayu, S., *Quality of Accounting Information and Level of Acceptance of Zakat Funds at Amil Zakat Institutions in Medan City.* Jurnal Investasi Islam, 2019. **4**(2): p. 116-126 DOI: https://doi.org/10.32505/jii.v4i2.1369.
36. Hastriana, U.S., *Ethics and Law of Management Information System Implementation and Its Impact on Social and Organizational Culture Problems.* Sinteks: Jurnal Teknik, 2017. **6**(1).
37. Belfo, F. and A. Trigo, *Accounting information systems: Tradition and future directions.* Procedia Technology, 2013. **9**: p. 536-546 DOI: https://doi.org/10.1016/j.protcy.2013.12.060.
38. Huerta, E. and S. Jensen, *An accounting information systems perspective on data analytics and Big Data.* Journal of information systems, 2017. **31**(3): p. 101-114 DOI: https://doi.org/10.2308/isys-51799.
39. Puspitawati, L., *The analysis of effectiveness measurement in accounting information systems through competence factor of information system user (research on higher education in Bandung).* Intl. J. Appl. Bus. Econ. Res, 2016. **14**: p. 815-841.
40. Leidner, D.E. and J.J. Elam, *Executive information systems: their impact on executive decision making.* Journal of Management Information Systems, 1993. **10**(3): p. 139-155 DOI: https://doi.org/10.1080/07421222.1993.11518014.
41. Suzan, L., J. Sudrajat, and Z.M. Daud, *Accounting information systems as a critical success factor for increased quality of accounting information.* Revista ESPACIOS, 2020. **41**(15).
42. Kaplan, D., et al., *Assessing data quality in accounting information systems.* Communications of the ACM, 1998. **41**(2): p. 72-78 DOI: https://doi.org/10.1145/269012.269024.
43. Ramdhani, M.A. and A. Ramdhani, *Verification of research logical framework based on literature review.* International Journal of Basic and Applied Science, 2014. **3**(2): p. 1-9.
44. Pinnaringtyas, S.W., I. Isharijadi, and L.V. Whartanti, *Analysis of Accounting Information Systems and Operational Budgets as An Internal Control Tool for Lending.* Economic Education Analysis Journal, 2021. **10**(2): p. 347-354.