## The Effect of Accounting Information Systems and Information Technology on Accounting Staff Performance of Manufacturing Companies in Semarang

Yeni Kuntari<sup>1</sup>, Anis Chariri<sup>2</sup>, Nurdhiana<sup>1</sup>, Cornelio Purwantini<sup>3</sup>

<sup>1</sup>Program Studi Akuntansi, STIE Widya Manggala. <sup>2</sup>Program Studi Akuntansi, Fakultas Ekonomika dan Bisnis, Universitas Diponegoro. <sup>3</sup>Program Studi Pendidikan Akuntansi, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Sanata Dharma

\*Corresponding author email: yenikuntari@gmail.com

### Abstract

In the industrial era and in the context of the COVID-19 pandemic, today's business community requires accounting professionals with information technology skills and a good understanding of computer applications. This study investigates the effect of application utilization. and trust in the accounting information system on accounting staff performance. The sample is 210 medium and large-scale manufacturing companies in Semarang City in 2020. The survey was conducted to collect the data from the selected sample. In order to satisfy the objectives of the study, a multiple regression analysis was held. The results of this study indicate that the trust in information technology accounting systems and information technology has a positive effect on the performance of accounting staff. Meanwhile, the application of the accounting information system, and the effectiveness of the accounting information system have no effect on the performance of the accounting staff.

## Keywords: Accounting Information System, Information Technology, Accounting staff Performance

#### Abstrak

Di era industri dan dalam konteks pandemic covid 19, lingkungan bisnis menuntut kompetensi para profesional akuntansi di bidang teknologi informasi dan memahami aplikasinya dengan piranti komputer. Tujuan penelitian ini adalah mengetahui pengaruh penerapan sistem informasi akuntansi, penggunaan sistem informasi akuntansi, efektivitas sistem informasi akuntansi, kepercayaan pada sistem informasi akuntansi dan teknologi informasi terhadap kinerja pegawai bagian akuntansi. Sampel penelitian diambil dari 210 manajer akuntansi perusahaan manufaktur skala menengah dan besar di Kota Semarang. Pemerolehan data menggunakan kuesioner dan selanjutnya dianalisis dengan regresi linier berganda. Hasil penelitian menunjukkan bahwa kepercayaan pada teknologi sistem informasi akuntansi. Penerapan sistem informasi akuntansi, penggunaan sistem informasi akuntansi, dan efektivitas sistem informasi akuntansi tidak berpengaruh terhadap kinerja pegawai bagian akuntansi.

Kata Kunci: Sistem Informasi Akuntansi, Teknologi Informasi, Kinerja karyawan Akuntansi

## 1. INTRODUCTION

The role of technology has increased along with the emergence of the industrial era. It also replaces the human role, especially during the covid 19 pandemic due to the work termination of industrial human resources. Efficiency and productivity are becoming increasingly dependent on technology and information systems which at the same time have to be mastered by the staff to increase their performance.

Previous employee performance studies have shown that the work targets achieved by employees are related to quality, quantity, and time (Cherrington, 1994; Johnson et al., 2002; Schermerhorn et al., 2009). Accounting staff performance can be measured by the achievement of work targets in preparing financial reports on a timely basis. Optimal performance will be realized if the organization are highly motivated and competent employees with respect to their work and a conducive environment that allows them to work optimally (Gong et al., 2009; Huang, 2019; Hartono; 2007; Robbins and Judge, 2013). Investor Daily Indonesia reports that more than half (55%) of companies in Asia Pacific are dissatisfied with their human resource technology platforms. Performance can be interpreted as a person's level of success in carrying out their duties compared to the previous period. Factors that can affect performance are competence, technology/machine, method/system (Edison, 2018). Employees on the one hand, are important assets for the company, many things need to be considered related to improving its performance (Siagian, 2001).

Accounting information system is one of the types of information technology developed in accounting fields. The advances in information technology can be used to process financial data so that required information can be obtained quickly (Bodnar and Hopwood, 2003; Halim, 1994). An accounting information system is a system that collects, records, and processes financial data and non-financial data related to financial transactions to produce information for decision making (Ardana and Lukman, 2017; Roberts and Scapens, 1985; Trigo et al., 2016). To increase the quality of decision, a qualified accounting information system and information technology can give reliable and timely information, such as financial reports. Technology and accounting information systems are considered in the application, utilization, effectiveness, trust by users in order to maximize user performance (Collins and DeAngelo, 1990; Dewi and Bagus, 2017; Fathema et al., 2015; Krisiani and Dewi, 2013; Romey and Steinbart., 2012; Trigo et al., 2016).

Accounting information systems and information technology have an important role for organizations in the fields of services, trade, and manufacturing. The author chooses manufacturing companies because manufacturing companies thrive and compete in innovation and the principle of zero defect. A good accounting information system helps every work process to be controlled through a good system for making reports on production, inventory, sales, finance, and other reports with zero defects.

The implication and contribution of this research is adding the literature on the function of the accounting information system and information technology in influencing the performance of accounting staff.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

#### **Technology Acceptance Model**

TAM is investigating how the information system or technology is accepted by the user. This research is using components of TAM to investigate the employee performance. Technology Acceptance Model (TAM) is developed by Davis (1989). Technology acceptance model (TAM) is an information technology system acceptance model that will be used by users. Davis uses TRA (Theory of Reasoned Action) as his grand theory but does not accommodate all components of the TRA theory. Davis only uses the "Belief" and "Attitude" components, then in TAM adds two main constructs, namely usefulness and ease of use of information technology (ease to use). The TAM model argues that individual acceptance of information technology systems is determined by these two constructs. System users will use the system if the system is useful, whether the system is easy to use or not easy to use. The system that is difficult to use will still be used if the user feels that the system is still useful. TAM is intended for the use of technology, then the behavior (behavior) in TAM is intended as behavior using technology (Fathema et al., 2015; Fatmawati, 2015; Grande et al., 2011; Hartono, 2007; Lukiman and Lestarianto, 2016).

TAM research has been carried out a lot, and the TAM model in more detail describes the acceptance of technology with certain dimensions that can affect the ease of acceptance of information technology by users. Thus, it can be understood that the reactions and perceptions of IT users will influence their attitudes in accepting information technology. The TAM model which has been widely used in research will be used by researchers in this study by taking two perceptual constructs, namely perceived usefulness and ease of use. Researcher used the TAM theory as the basis for research because it explains the benefits obtained from the use of accounting information systems and the ease of use of accounting information systems that can affect the intentions or behavior shown by the user or employee concerned and the level of employee confidence in using the information system (Bao et al., 2013; Fathema et al., 2015; Fatmawati, 2015; Lin et al., 2011; Tan, 2012).

### **Application of Accounting Information Systems and Accounting Staffs Performance**

Accounting information system is a human resource and capital in an organization in charge of preparing information financial statements and also information obtained from the collection and transaction processing (Bodnar and Hopwood, 2003; Grande et al., 2011; Ernawatiningsih and Kepramareni, 2019; Romey and Steinbart., 2012; Shagari et al., 2017; Suratini et al., 2015). Usability aspect of an accounting information system is the application, use, effectiveness and belief in systems (Grande et al., 2011; Petratos and Faccia, 2019; Petter et al., 2008; Trigo et al., 2016). As a system, information system accounting also applies a general system model consisting of input, processes, and outputs.

The input of an accounting information system is the transaction finances of a business entity. Then the data is processed into the output and presented in the form of a report. Accounting information system output is an accounting report. Data processing with the help of computers can be easier and the demands of information needs can be met immediately. Therefore, the application of an Accounting Information System is the use of an accounting system computer-based that can be used easily and can fulfill needs (Davis, 1989; Halim, 1994; Halim et al., 2014). It can be concluded that the application of Accounting Information System is the use of an accounting system based on computers that can be used easily and meet the needs. Meeting the needs means that users of accounting information systems can perform well. Performance is something that is visible, namely individuals are relevant to organizational goals (Campbell, et al., 1988). Good performance is one of the organizational goals in achieving high work productivity. The achievement of good performance cannot be separated from the quality of good resources that can meet the needs and support the progress of the organization.

There are several research results regarding the effect of the application of accounting information systems on the performance of employees in the accounting department. Some of the studies are in line with the research of Lukiman and Lestarianto (2016) which shows that the application of accounting information systems has no effect on the performance of accounting staffs (Dewett and Jones, 2001). The results of this study also showed that the application of accounting information systems had an effect on the performance of accounting employees (Davis, 1989; Dewi and Bagus, 2017; Grande et al., 2011; Lee and Fisher, 2007). Research hypothesis based on the results of the research which are still different, a hypothesis is formulated;

# H1: There is a positive and significant effect of the application of AIS on accounting staff performance.

### The Use of Accounting Information Systems and Accounting Staffs Performance

One element of the usefulness of the Accounting Information System is its utilization. The utility of a system also depends on the user. Whether a system is considered by users to be better than other systems, which provides better benefits is one of the determinants of the success of the system, including accounting information systems. Usefulness in the Technology Acceptance Model (TAM) or information technology benefits is the expected impact of information technology users in carrying out their duties (Davis et al., 1989; Kluemper et al., 2015). Utilization of accounting information systems in the company must be done properly such as developing and maintaining the system regularly so that the system used can be well integrated so as to provide benefits for accounting employees in completing their work quickly and accurately so as to improve their performance.

However, the research results are not in line with this theory, statistical results say that the use of Accounting Information Systems has no effect on the performance of the accounting department employees. This happens because the information system has not been well integrated. For this reason, companies need to carry out regular evaluations to improve system deficiencies within the company so that the system can be well integrated and can be utilized by users, especially accounting employees to produce reports that are useful for decision making so that the accounting department employee performance will be assessed as good as well. The research results for this variable are still different. Research shows that the use of accounting information

systems has no effect on employee performance in the accounting department (Nasir dan Oktari, 2011). Meanwhile, the results of this study are inconsistent, which shows that the use of accounting information systems has an effect on the performance of accounting employees (Davis, 1989; Fathema et al., 2015; Grande et al., 2011; Lukiman and Lestarianto, 2016; Petter et al., 2008). From the research results that are still different, the following hypotheses are formulated:

## H<sub>2</sub>: There is a positive and significant effect of the use of accounting information systems on accounting staff performance

### Effectiveness of Accounting Information Systems and Accounting Staffs Performance

Ease of using information systems in Technology Acceptance Model (TAM) is a level where a person believes that using the system can reduce one's effort in doing their jobs (Davis, 1989; Fathema et al., 2015). An effective Accounting Information System will provide convenience in the use of system. It will have a positive impact on employees in the processing of financial transactions to produce quality financial reports. Many studies show that this is not in line with the theory. It may occur that employees feel the system is only a means to generate reports for their respective work units and only provides benefits for the organization, not for them. For this reason, the company should evaluate the performance of the system on a regular basis so that it can be used correctly and quickly in producing financial reports by the company.

The results of this study are still different. Some research findings show that the effectiveness of accounting information systems has no effect on the performance of accounting employees (Dewi and Bagus, 2017; Krisiani and Dewi, 2013; Petter et al., 2008; Petter and McLean, 2009; Staples and Seddon, 2004). The other results show that the effectiveness of accounting information systems affects the performance of accounting employees (Davis, 1989; Davis et al., 1989; Fathema et al., 2015). With the results of this study, a hypothesis is formulated; **H3: There is a positive and significant effect of the effectiveness of accounting information systems on accounting staff performance.** 

#### **Trust in Accounting Information Systems and Accounting Staffs Performance**

Trust in the Technology Acceptance Model (TAM) is defined as the user's or accounting staff's belief that the use of information systems will improve their performance (Petter et al., 2008; Petter and McLean, 2009). User or employee trust will provide a high evaluation value of the system. It is believed that they can meet the needs of their duties. Employees believe that the use of technology can help provide accurate information to make management decisions. The employees will use the technology well.

In order to increase employee trust in the accounting information system, companies need to carry out routine maintenance and development of technology. System maintenance and system development are important so that the system always follows the necessary development. The development of technology can be used to assist employees in completing work properly. So that employees can be more productive and creative in using information systems and technology, they

need training. Trust and confidence in using information systems will increase productivity and creativity, so that their performance will increase.

The previous research results of this study are different. Some research shows trust in information system technology affects the performance of accounting employees (Fathema et al., 2015; Lukiman and Lestarianto, 2016). The other results show trust in information system technology has no effect on the performance of accounting employees (Alsaghier et al., 2009; Fatmawati, 2015).

## H4: There is a positive and significant effect of trust in accounting information system technology on accounting staff performance.

## Information Technology and Accounting Staff Performance

Model Technology Acceptance Model (TAM) is a model of acceptance of information technology systems used by users (Alsaghier et al., 2009; Davis et al., 1989; Fathema et al., 2015; Fatmawati, 2015). This technology supports information systems run by companies in carrying out their operational activities. The technology is expected to assist in processing information. Accounting staffs use the information technology that supports information systems to produce the financial statements that can be used by management to make decisions.

The process of communicating information to other people or to other locations is also important to maintain the technology. Technology maintenance is important so that the system always follows the development of needs. To expedite the work process, the company must maintain and develop the system to make it more useful.

Many research results show that information technology affects the performance of accounting employees (Grande et al., 2011; Lukiman and Lestarianto, 2016). The other results of this study show that information technology has no effect on the performance of accounting staff (Abu-Musa, 2009; Dewi and Bagus, 2017). That way employees feel helped by information technology so that the performance of the accounting department employees will increase. They believe in existing technology and their performance will increase.

## H5: There is a positive and significant effect of information technology on accounting staff performance.

#### **3. RESEARCH METHOD**

#### **Population and Sample**

This study is a causal comparative research which observes the relationship between two or more variables (Indriantoro and Supomo, 1999; Ryan, Scapens, and Theobald, 2002; Sekaran and Bougie, 2017). The population of this study was 210 manufacturing companies based on data from the Semarang City Industry Office (Disperin, 2019; Disperin Kota Semarang, 2019). Questionnaires were distributed to 210 accounting staff of manufacturing companies in Semarang City. The response rate is as many as 84 questionnaires and only 72 questionnaires were valid to be processed. Multiple regression analysis was conducted for the test of hypothesis.

## Variable Measurements Accounting Staff performance

Individual performance is an assessment result given by management in accordance with organizational goals. By this definition, the indicators of staff performance are increase productivity, deliver benefits, get more work done fast, increase the quality of work output, increase opportunities for promotion(Cherrington, 1994; Robbins and Judge, 2013; Schermerhorn et al., 2009).

## **Application of Accounting Information System**

The application of an accounting information system is a way of producing output that is in accordance with the needs and can be used for decision making by management (Davis, 1989; Lukiman and Lestarianto, 2016; Nofianti and Suseno, 2014) . Based on this definition, the indicators of the application of AIS are: provides results according to needs (relevant, timely, complete and concise financial information, free from error and fraud, valid and reliable information, meet the information needs of the organization, satisfaction for users, requires a large cost, independent from environment and competitive situation) and provide results that can be used for management decision making (produces useful information, long term use and easily accepted by all parties in the company).

## **Utilization of Accounting Information Systems**

Utilization of an accounting information system is an information system within a company or institution that has been properly utilized, all accounting reports have been properly integrated, and maintenance has been carried out on the information system used (Lukiman and Lestarianto, 2016; Staples and Seddon, 2004). Based on this definition, the indicators of the utilization of accounting information systems are: *utilization has been carried out correctly* (enough devices, internet network installed in the work unit by means of a Local Area Network (LAN) or Wide Area Network (WAN), the internet network is installed and utilized in the work unit as a liaison in sending the required data and information) and *utilization in accounting reports has been well integrated* (the accounting process can be done computerized, data processing uses software accordance with statutory regulation, accounting and managerial reports are generated from an integrated information system, maintenance the Accounting Information System has been carried out properly with a regular maintenance schedule, outdated or damaged equipment is recorded and repaired in a timely manner).

## **Effectiveness of Accounting Information Systems**

Effectiveness of Accounting Information Systems is the level of positive impact, quality and use of accounting information systems when used by employees. Based on this definition, the indicators of the effectiveness of accounting information systems (Lukiman and Lestarianto, 2016; Petter et al., 2008) are: *the level of impact by users* (user satisfaction, design effectiveness, problem identification, increased individual productivity, contribution to achieving objectives,

cost/benefit ratio, overall productivity improvement, service effectiveness), *the level of quality of AIS by users* (system reliability, features and functions, response time, information quality, clarity of information, completeness, usefulness, accuracy), *the level of usage by employees* (e.g. regularity of use, number of questions, duration of use, frequency of report requests).

## **Trust in Accounting Information System Technology**

Trust in accounting information system technology can also be said as a condition of the user or the user believing that the accounting information system information technology used can assist him in completing the company's operational tasks (Alsaghier et al., 2009; Grande et al., 2011; Lukiman and Lestarianto, 2016). Based on this definition, the indicators of trust in accounting information system technology are helping and improving individual performance, making them more productive and creative, improving performance, and providing a positive and pleasant impact for users.

## **Information Technology**

Information Technology is technology that supports information systems run by companies in carrying out their operational activities and is expected to assist in processing the information obtained (Davis, 1989; Lukiman and Lestarianto, 2016; Suratini et al., 2015). Based on this definition, the indicators of information technology are: *information technology supports AIS in carrying out operational activities* (the computer assist in data processing and produce the desired shape, the computers help in aggregating information between departments, the computers help to store the data or information), *the information technology helps AIS in processing information* (the computer help obtain information at its origin place, the computers help to obtain new information, the computer help to obtain non-financial information or external information, the computer assist in communicating information to other people or to other locations).

## 4. **RESULTS AND DISCUSSION**

## **Respondent Demographic Data**

Demographic data of respondents provides information on respondents based on demographics. This demographic data provides information on the respondents' gender, age, years of service and education.

Table 1. Ochuci					
Gender	Amount	Percentage			
Male	20	14%			
Female	52	86%			
Total	72	100%			

Table	1.	Gender
I avic	1.	Genuer

Based on table 1, the majority of respondents is female with percentage of 86%.

	Table 2. Age				
Age	Amount Percentage				
(years)					
20-30	22	31%			
31-40	36	50%			
41-50	14	19%			
Total	72	100%			

<b>Fab</b>	le 2.	Ag	e

Based on table 2, the largest number of respondents is between the ages of 31-40 years, which is 50%.

- use of hereby an entry in the second secon					
Length of	Amount	Percentage			
Employment					
1-3 years	23	32%			
3-5 years	22	31%			
>5 years	27	37%			
Total	72	100%			

#### Table 3. Length of Employment

Based on table 3, most of the respondents have a working period of more than 5 years, although the average for each tenure is almost the same. Based on table 4, the education level of most respondents is Bachelor and followed by Diploma level.

Educational Level	Amount	Percentage			
Senior High School	4	6%			
Diploma	17	24%			
Bachelor	46	63%			
Postgraduate	5	7%			
Total	72	100%			

**Table 4. Educational Level** 

#### **Descriptive Statistics**

Descriptive statistical analysis is used to provide an overview or explanation of a data that is seen from the average value (mean), standard deviation, minimum value, and value maximum of each variable in this study. This study uses the independent and dependent variable. The independent variables are the application, utilization, effectiveness and trustworthiness of AIS and information technology, the dependent variable is the performance of accounting staff. As many of 210 had been sent to respondents and 84 were returned. Of this number, 72 are eligible for further analysis.

Table 5. Descriptive Statistics							
	Ν	Minimum Maximum		Mean	Std.		
					Deviation		
X1	72	31	50	40.86	4.290		
X2	72	27	40	33.99	3.367		
X3	72	14	30	24.31	3.695		
X4	72	16	25	21.21	2.295		
X5	72	22	40	32.79	4.354		
Y	72	19	30	24.39	2.776		

## Table 5. Descriptive Statistics

Based on Table 5, the results of the descriptive statistical test show that from 72 observations, the value of the standard deviation of the independent variables is smaller than the average value of each variable itself. The value of the standard deviation smaller indicates that the data is homogeneous or the variance is not too large.

## **Hypothesis Testing**

As previously explained, this study examines the AIS applications, the use of AIS, the effectiveness of AIS, the trust in AIS and information technology on the dependent variable of accounting staff performance. The results of hypothesis testing using multiple regression are shown in table 6. Before testing the hypothesis in accordance with the requirements using regression testing, the data used has passed the classical assumption test. Validity and reliability tests have been carried out on the research instrument with the results of the instrument being valid and reliable.

Model	Unstandardized		Standardized	Т	Sign	
	Coefficients		Coefficients			
	В	Std.	Beta			
		Error				
(Constant)	3.091	2.556		1.209	.231	
X1	.037	.097	.057	.384	.702	Rejected
X2	.106	.095	.129	1.114	.269	Rejected
X3	.083	.113	.110	.732	.467	Rejected
X4	.355	.131	.293	2.713	.008	Accepted
X5	.202	.081	.317	2.486	.015	Accepted

 Table 6. Multiple Linear Regression Test

## Applications of AIS and Performance of accounting employees

The results of the research data show a significance level of 0.702 > 0.05, Because the value of the sign t is greater than the alpha level (0.05), H0 is accepted, meaning that the application of

accounting information systems  $(X_1)$  has no effect on the performance of accounting employees (Y). Attitude in the Technology Acceptance Model (TAM) is an attitude towards the application of technology which is defined as an evaluation of the user about his curiosity in using AIS technology. The results of the study are not in line with this theory. Employees who are not fully convinced that the application of an accounting information system can help them in completing their duties will find difficulty with the existing system.

There are several research results regarding the effect of the application of accounting information systems on the performance of accounting staff. This study is in line with the research that the application of accounting information systems has no effect on the performance of accounting employees (Dewett and Jones, 2001; Lukiman and Lestarianto, 2016). The other results of this study also showed that the application of accounting information information systems had an effect on the performance of accounting employees (Davis, 1989; Dewi and Bagus, 2017; Grande et al., 2011; Lee and Fisher, 2007).

The application of an accounting information system in a company should consider the users of the system. Users who understand the application of information systems can affect the quality of the output produced. This is in accordance with the main objective of the accounting information system, which is to be able to produce quality accounting reports. The application of an accounting information system is the use of a computer-based accounting system that can be used easily and can meet needs (Halim, 1994; Halim et al., 2014), completion of their tasks (Dewi and Bagus, 2017; Lukiman and Lestarianto, 2016; Sswenyana, 2010; Staples and Seddon, 2004; Suratini et al., 2015).

### Use of AIS and performance of accounting employees

The results of the research data show a significance level of 0.269 > 0.05. Because the value of the sign t is greater than the alpha level (0.05), H0 is accepted, then H0 is accepted, meaning that the use of accounting information systems (X<sub>2</sub>) has no effect on the performance of accounting employees (Y). Usefulness in the Technology Acceptance Model (TAM) or the benefits of information technology is the expected impact of information technology users in carrying out their duties (Davis, 1989; Davis et al., 1989). Utilization of accounting information systems must be carried out by developing and maintaining the system on a regular basis. It will be well integrated and provides benefits for accounting employees in completing their work quickly and accurately. Information systems that are not well integrated can cause the system to be less useful.

The research results for this variable are still different. The result shows that the use of accounting information systems has no effect on employee performance in the accounting department (Nasir and Oktari, 2011). Meanwhile, the results of this study are inconsistent, which shows that the use of accounting information systems has an effect on the performance of accounting employees (Davis, 1989; Fathema et al., 2015; Grande et al., 2011; Lukiman and Lestarianto, 2016; Petter et al., 2008). By using the information system, the information of financial reports produced by accounting staff will be more relevant and accurate, so that it can be useful for management in decision making. Then employee performance appraisals will be

assessed. If the employee's performance is good, then the financial statements produced can be trusted by other parties, especially investors. Utilization of information systems includes data processing, information processing, management systems and work processes electronically. The use of advances in information technology so that public services can be accessed easily and cheaply by people throughout the region. There are five components in an accounting information system, namely: people, procedures, data, software, and information technology infrastructure (Romey and Steinbart., 2012).

#### Effectiveness of AIS and performance of accounting employees

The results of the research data show a significance level of 0.467 > 0.05. Because the value of the sign t is greater than the alpha level (0.05), H0 is accepted, meaning that the effectiveness of the accounting information system (X<sub>3</sub>) has no effect on the performance of the accounting staff (Y). Ease of use of information systems in the Technology Acceptance Model (TAM) is a level where a person believes that using the system can reduce one's effort in doing something. Due to the low positive impact of the system on individuals, the system is only a means to generate reports for each work unit and only provides benefits for the organization, not for the individual. For this reason, the company should evaluate the performance of the system on a regular basis so that it can be used appropriately and quickly in producing financial reports by accounting employees and giving appreciation to employees who perform well.

The results of this study shows that the effectiveness of accounting information systems has no effect on the performance of accounting employees (Dewi and Bagus, 2017; Krisiani and Dewi, 2013; Petter et al., 2008; Petter and McLean, 2009; Staples and Seddon, 2004). The results of this study are not in line with Lukiman and Lestarianto (2016) who show that the effectiveness of accounting information systems affects the performance of accounting employees (Davis, 1989; Davis et al., 1989; Fathema et al., 2015).

The effectiveness of an accounting information system is a description of the extent to which the target is achieved from a set of resources that are arranged to collect, process, and store electronic data. Then it will turn it into useful information and provide the required formal reports in a quality, relevant, accurate and timely manner (Huang, 2019; Krisiani and Dewi, 2013; Petter et al., 2008; Staples and Seddon, 2004). Therefore, so that information systems and information technology can be used effectively in order to make a good contribution to employee performance, the employees involved must be able to use the technology well as well. The effectiveness of the use of accounting information systems can be seen from the ease of users in identifying data, accessing data and interpreting the data.

### Trust in AIS and performance of accounting employees.

The results of the research data show a significance level of 0.008 < from 0.05, then H0 is rejected, meaning that trust in accounting information system technology (X<sub>4</sub>) has a significant positive effect on the performance of accounting employees (Y). Trust in the Technology Acceptance Model (TAM) is defined as the user's or accounting employee's belief that the use of

information systems will improve their performance. User or employee trust will provide a high evaluation value (positive) to the extent to which the system is believed to be able to meet the needs of their duties and in accordance with the needs of their duties. The more employees believe that the technology used can help provide accurate information that is relevant for management to make decisions, the employees will use the technology well (Davis, 1989; Krisiani & Dewi, 2013). The results show that trust in information system technology affects the performance of accounting employees (Fathema et al., 2015; Lukiman and Lestarianto, 2016). The other study shows that trust in information system technology has no effect on the performance of accounting employees (Alsaghier et al., 2009; Fatmawati, 2015). Trust is necessary for users of accounting information systems. The users can feel that they can use the technology effectively and appropriately in carrying out company operations. Someone who believes that the information system will have a positive impact on its users, will be motivated to be able to complete the job well. The acceptance of technology by individual users is inseparable from the user's beliefs about the technology. These beliefs represent cognitive structures developed by individuals after collecting, processing, and synthesizing information about information technology, and include individual judgments of various outcomes related to the use of the technology (Fathema et al., 2015; Fatmawati, 2015; Gupta, et al., 2007; Nasir and Oktari, 2011).

### Information technology and performance of accounting employees.

The results of the research data show a significance level of 0.015 < from 0.05, because the value of the sign t is smaller than the alpha level (0.05), then H0 is rejected, meaning that information technology (X<sub>5</sub>) has a significant positive effect on the performance of accounting employees (Y). The Technology Acceptance Model (TAM) is a model of acceptance of information technology systems used by users. Information technology is technology that supports the information systems used. Accounting staffs accept the use of information technology that supports information systems within the company so that the financial statements can be used by management decisions.

Many research results show that information technology affects the performance of accounting employees (Grande et al., 2011; Lukiman and Lestarianto, 2016). The other results of this study show that information technology has no effect on the performance of accounting employees (Abu-Musa, 2009; Dewi and Bagus, 2017). That way employees feel helped by information technology so that the performance of the accounting department employees will increase.

Technology is the development and application of tools, machines, materials, and processes that help people solve problems (Davis et al., 1989; Fathema et al., 2015; Staples and Seddon, 2004). With network and communication technology, data and information can be distributed very quickly. Information technology is useful in providing formal reports, including financial reports quickly and effectively, as well as providing convenience for users of information technology in identifying data, accessing data, and interpreting data needed to fulfill various tasks or work needs.

## **5. CONCLUSION**

This study examines the effect of the applications, utilization, effectiveness, trust in accounting information systems, and information technology on accounting employee performance. Only two of the five factors that influence, namely trust in information systems and information technology. The application of the accounting information system  $(x_1)$  has no effect on the performance of the accounting department employee (y). Utilization of accounting department (y). The effectiveness of the accounting information system  $(x_3)$  has no effect on the performance of the accounting department employee (y). Trust in accounting information system technology (x<sub>4</sub>) has a significant positive effect on the performance of accounting employees (y). Information technology (x<sub>5</sub>) has a significant positive effect on the performance of accounting information systems (x<sub>2</sub>), effectiveness of accounting information systems (x<sub>3</sub>), trust in accounting information systems (x<sub>2</sub>), effectiveness of accounting information systems (x<sub>3</sub>), trust in accounting information systems (x<sub>2</sub>), effectiveness of accounting information systems (x<sub>3</sub>), trust in accounting information systems (x<sub>2</sub>), effectiveness of accounting information systems (x<sub>3</sub>), trust in accounting information systems (x<sub>2</sub>), effectiveness of accounting information systems (x<sub>3</sub>), trust in accounting employees (y) of 54 ,9%, while the remaining 45.1% is influenced by other variables outside the variables studied.

The implication and contribution of this research is adding the literature on the function of the accounting information system and information technology in influencing the performance of accounting staff. In the era of information technology in the context of covid 19 pandemic, more people reduce mobility, including in work. This requires the use of information technology and information systems in supporting all human work. The weakness of this research is that it is still limited in scope, namely in the manufacturing industry of Semarang City. The selection of the research independent variables only contributed 51% to the accounting staff performance variable, so that 49% was explained by other variables.

For further research, it can expand the scope of research, in other industries, add research areas and test other variables that are not used in this research such as gender, expertise, integrity, and comfort of users of accounting information systems.

#### REFERENCES

- Abu-Musa, A. A. 2009. Exploring COBIT Processes for ITG in Saudi Organizations: An empirical Study. *The International Journal of Digital Accounting* 9: 193–205.
- Alsaghier, H., M. Ford., A. Nguyen., and R. Hexel. 2009. Conceptualising Citizen's Trust in e-Government: Application of Q Methodology. *Electronic Journal of E-Government* 7(4), 295–310.

Ardana, C., and H. Lukman. 2017. Sistem Informasi Akuntansi. Jakarta: Mitra Wacana Media.

Bao, Y., T. Xiong., Z. Hu., and M. Kibelloh. 2013. Exploring gender differences on general and

specific computer self-efficacy in mobile learning adoption. *Journal of Educational Computing Research* 49(1): 111–132.

Bodnar, G. H., and W. S. Hopwood. 2003. Accounting Information Systems. Prentice Hall.

- BPS. 2019. Semarang dalam Angka. Retrieved from https://semarangkota.bps.go.id/subject/9/industri.html
- Campbell, C., B. G. Peters., and C. Peters. 1988. *Organizing Governance: Governing Organizations*. Pittsburgh, PA: University of Pittsburgh Press.
- Cherrington, D. J. 1994. Organizational Behavior: The Management of Individual and Organizational Performance. London: Allyn and Bacon.
- Collins, D., and L. DeAngelo. 1990. Accounting Information and Corporate Governance:Market and Analyst Reactions to Earnings of Firms Engaged in Proxy Contests. *Journal of Accounting and Economics* 13: 213-247.
- Davis, F. D. 1989. Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly: Management Information Systems* 13(3): 319–339.
- Davis, F. D., R. P. Bagozzi., and P. R. Warshaw. 1989. User Acceptance of Computer Technology: A Comparison of Two Theoretical Models. *Management Science* 35(8): 982–1003.
- Dewett, T., and G. R. Jones. 2001. *The role of information technology in the organization: A review, model, and assessment. Journal of Management* 27). https://doi.org/10.1016/S0149-2063(01)00094-0.
- Dewi, N. L. A. A., and I. D. Bagus. 2017. Pengaruh Efektivitas Sia, Pemanfaatan Ti Dan Kemampuan Teknis Pemakai Sia Terhadap Kinerja Individu. *E-Jurnal Akuntansi 18*(1): 386–414.
- Disperin. 2019. Data Perindustrian. Retrieved from https://disperin.semarangkota.go.id/ diakses 2 April 2020.
- Disperin Kota Semarang. 2019. Industri Manufaktur. diakses 2 April 2020
- Edison, E. 2018. Manajemen Sumber Daya Manusia. Bandung: Alfa Beta.
- Fathema, N., D. Shannon, and M. Ross. 2015. Expanding the Technology Acceptance Model (TAM) to Examine Faculty Use of Learning Management Systems (LMSs) In Higher Education Institutions. *MERLOT Journal of Online Learning and Teaching* 11(2): 210– 232.
- Fatmawati, E. 2015. Technology Acceptance Model (TAM) Untuk Menganalisis Sistem Informasi Perpustakaan. *Jurnal Perpustakaan Dan Informasi*, 9(1), 1–13.

- Gong, Y., J. C. Huang, and J. L. Farh. 2009. Employee learning orientation, transformational leadership, and employee creativity: The mediating role of employee creative selfefficacy. Academy of Management Journal 52(4), 765–778.
- Grande, E. U., R. P. Estebanez, and C. M. Colomina. 2011. The impact of Accounting Information Systems (AIS) on performance measures: empirical evidence in Spanish SMEs The impact of Accounting Information Systems (AIS) on performance measures: empirical evidence in Spanish SMEs 1. *The International Journal of Digital Accounting Research* 11: 25-43.
- Gupta, M. P., S. Kanungo, R. Kumar, and G. P. Sahu. 2007. A study of information technology effectiveness in select government organizations in India. *Vikalpa* 32(2), 7–21.
- Halim, A. 1994. Sistem Informasi Akuntansi. Yogyakarta: BPFE Yogyakarta.
- Halim, A., I. R. Bawono, and Y. A. Sudibyo. 2014. Peran Informasi Dan Pengetahuan Pengambil Keputusan Sektor Publik: Eksperimen Pada Konteks Rumah Sakit Umum Daerah (RSUD). SNA XV Banjarmasin, 1–26.
- Huang, C.-C. 2019. User's Segmentation on Continued Knowledge Management System Use in the Public Sector. *Journal of Organizational and End User Computing* 32(1):19–40.
- Indriantoro, N., and B. Supomo. 1999. *Metodologi Penelitian Bisnis*. Yogyakarta: BPFE Yogyakarta.
- Hartono, J. 2007. Sistem Informasi Keperilakuan. Yogyakarta: ANDI.
- Johnson, V. E., I. K. Khurana, and J. K. Reynolds. 2002. Audit-firm tenure and the quality of financial reports. *Contemporary Accounting Research* 19(4): 637–660.
- Kemenperin. 2019. Semakin Agresif, Indeks Manufaktur Indonesia tertinggi dalam 20 Bulan. Retrieved from http://www.kemenperin.go.id/artikel/18895/Semakin-Agresif,-Indeks-Manufaktur-Indonesia-Tertinggi-dalam-20-Bulan. Diakses 20 April 2019.
- Krisiani, V., dan A. F. Dewi. 2013. Pengaruh Efektivitas dan Kepercayaan atas Sistem Informasi Akuntansi Terhadap Kinerja Pengguna Sistem pada Hotel-hotel Berbintang di Yogyakarta. *MODUS* 25(1): 57-71.
- Lee, J., and G. Fisher. 2007. The Perceived Usefulness and Use of Performance Information in the Australian Public Sector. *Accounting, Accountability & Performance* 13(1): 42–73.
- Lin, F., S. S. Fofanah, and D. Liang. 2011. Assessing citizen adoption of e-Government initiatives in Gambia: A validation of the technology acceptance model in information systems success. *Government Information Quarterly* 28(2): 271–279.

Lukiman, R., dan J. W. Lestarianto. 2016. Pengaruh Penerapan Sistem Informasi Akuntansi,

Pemanfaatan Sistem Informasi, Efektivitas Penggunaan Sistem Informasi Akuntansi, Kepercayaan Atas Teknologi Sistem Informasi Akuntansi, Dan Teknologi Informasi Terhadap Kinerja Individu Karyawan. *Jurnal ULTIMA Accounting* 8(2): 46–65.

- Nasir, A., dan R. Oktari. 2011. Pengaruh Pemanfaatan Teknologi Informasi dan Pengendalian Intern Terhadap Kinerja Instansi Pemerintah. *Jurnal Ekonomi* 19(2):1-15.
- Nofianti, L., and N. S. Suseno. 2014. Factors Affecting Implementation of Good Government Governance (GGG) and their Implications towards Performance Accountability. *Procedia-Social and Behavioral Sciences 164:* 98–105.
- Petratos, P., and A. Faccia. 2019. Accounting information systems and system of systems: assessing security with attack surface Methodology. http://dx.doi.org/10.1145/3358505.3358513
- Petter, S., W. DeLone, and E. McLean. 2008. Measuring information systems success: Models, dimensions, measures, and interrelationships. *European Journal of Information Systems* 17(3): 236–263.
- Petter, S., and E. R. McLean. 2009. A meta-analytic assessment of the DeLone and McLean IS success model: An examination of IS success at the individual level. *Information and Management* 46(3): 159–166.
- Ernawatiningsih, N. P. L., and P. Kepramareni. 2019. Effectiveness of Accounting Information Systems and the Affecting Factors. *International Journal of Applied Business and International Management* 4(2):33-40
- Robbins, S. P., and T. A. Judge. 2013. Organization Behavior. Oxford: Pearson.
- Roberts, J., and R. Scapens. 1985. Accounting systems and systems of accountability understanding accounting practices in their organisational contexts. *Accounting*, *Organizations and Society I*(4): 443–456.
- Romey, M. B., and P. J. Steinbart. 2012. Accounting Information System (12th ed.). USA: Pearson.
- Ryan, B., R. Scapens, and M. Theobald. 2002. *Research Method and Methodology in Finance and Accounting 2rd eds*. London: Thompson.
- Schermerhorn, J. R., J. G. Hunt, R. N. Osborn, and M. Uhl-Bien. 2009. *Organizational Behavior*. *11th ed.* Hoboken: John Wiley & Sons, Inc.
- Sekaran, U., and R. J. Bougie. 2017. Research Methods for Business. London: John Wiley & Sons.
- Shagari, S. L., A. Abdullah, and R. M. Saat. 2017. Accounting information systems effectiveness: evidence from the Nigerian banking sectors. *Interdisciplinary Journal of Information*, *Knowledge, and Management* 12: 309–335.

- Siagian., S. P. 2001. Manajemen Sumber Daya Manusia. Jakarta: Bumi Aksara.
- Swenyana, J. K. 2010. ICT Usage in Microfinance Institutions in Uganda. *The African Journal of Information System* 1(3): 5–28.
- Staples, D. S., and P. Seddon. 2004. Testing the technology-to-performance chain model. *Journal* of Organizational and End User Computing 16(4): 17–36.
- Suratini, N. P. E. S., N. K. Sinarwati, and A. W. T. Atmadja. 2015. Pengaruh Efektivitas Sistem Informasi Akuntansi dan Penggunaan Teknologi Informasi Akuntansi Terhadap Kinerja Individual Pada PT. Bank Pembangunan Daerah Bali Kantor Cabang Singaraja. *E-Journal S1 Ak Universitas Pendidikan Ganesha 3*(1).
- Tan, T. K. 2012. Financial distress and firm performance: Evidence from the Asian financial crisis. *Journal of Finance and Accountancy* 11, 1–11.
- Trigo, A., F. Belfo, and R. P. Estébanez. 2016. Accounting Information Systems: Evolving towards a Business Process Oriented Accounting. *Procedia Computer Science*, 100, 987– 994. https://doi.org/10.1016/j.procs.2016.09.264