The Influence of Information Technology and Computer Skills on Accounting Information Systems at PT Bumi Jawa Kayana

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ABSTRACT

This study aims to examine the effect of information technology and computer skills on accounting information systems at PT Bumi Jawa Kayana. The method used in this research is descriptive method. Research category using a quantitative approach. The research design used is causality research. The data used in this research is primary data which comes from distributing questionnaires to 32 respondents. The sample selection used purposive sampling technique. The data analysis technique used multiple regression statistical techniques which were processed using SPSS 20.0 software. The results prove that the information technology variable has a significant effect on the accounting information system at PT Bumi Jawa Kayana. Likewise, the variable of computer skills has a significant effect on the accounting information system at PT Bumi Jawa Kayana. The coefficient of determination (Adjusted R Square) is 0.631 or 63.1%. Accounting Information Systems can be explained by the Information Technology and Computer Skills variables. While the remaining 36.9% of Accounting Information System variables can be explained by other variables not examined in this study.

Penelitian ini bertujuan untuk menguji pengaruh teknologi informasi dan keahlian komputer terhadap sistem informasi akuntansi pada PT Bumi Jawa Kayana. Metode yang digunakan dalam penelitian ini adalah metode deskriptif. Kategori penelitian dengan menggunakan pendekatan kuantitatif. Adapun desain penelitian yang digunakan adalah penelitian kausalitas. Data yang digunakan dalam penelitian ini berupa data primer yang bersumber dari penyebaran kuesioner kepada 32 responden. Pemilihan sampel menggunakan teknik purposive sampling. Teknik analisis data menggunakan teknik statistik regresi berganda yang diolah menggunakan software SPSS 20.0. Hasil penelitian membuktikan bahwa variabel teknologi informasi berpengaruh signifikan terhadap sistem informasi akuntansi pada PT Bumi Jawa Kayana. Demikian pula variabel keahlian komputer berpengaruh signifikan terhadap sistem informasi akuntansi pada PT Bumi Jawa Kayana. Koefisien determinasi (Adjusted R Square) diperoleh sebesar 0,631 atau 63,1% Sistem Informasi Akuntansi dapat dijelaskan oleh variabel Teknologi Informasi dan Keahlian Komputer. Sedangkan sisanya 36.9% variabel Sistem Informasi Akuntansi dapat dijelaskan oleh variabel-variabel lainnya yang tidak diteliti dalam penelitian ini.

INTRODUCTION
Research Background

Information technology is currently growing rapidly along with the progress of human civilization. The development of information technology includes the development of infrastructure such as hardware, software, data storage technology, and communication technology. The more advanced the information technology, the more influence it has on all fields. The accounting field is no exception. The development of information technology, in the information age, has a significant impact on the Accounting Information System (AIS) in a company.

Technological developments also affect the Financial Information System in presenting accounting information in the form of financial reports. Companies can present financial reports using computer technology and software to process data into financial reports. The information technology used must be up to date so that the information produced is more appropriate, since such technology develops rapidly along with the times. Irawati's research (2014) proved that information technology has an effect on accounting information systems. The more advanced the information technology, the more influence it has in the accounting field. Advances in Information Technology affect Accounting Information Systems in data reporting, company internal control, and increasing the number and quality of financial reporting and so on.

Good quality accounting information produced by an information technology system requires human intervention for control. Therefore, experts in the field of information systems are needed, especially those who understand and can operate a system well, so that they can produce accounting information that can be used in decision making in order to improve government performance.

Along with the development of technology, there is a need for human resources to improve their level of expertise, especially in operating information technology system. Improvement in such skills could be done in various ways, such as through specific education, involvement and experience, and special training in the field of information systems and computer technology. These skills should be aligned with the applied system so that the system can run effectively and in accordance with the company's objectives.

PT Bumi Jawa Kayana is a travel and tourism agency founded by Mr. Zaini Bakri whose vision is to be one of the best and most trusted travel service company that offers complete services, particularly in domestic and foreign tour packages, airline tickets, bus rentals, and processing service for travel documents, visas, passports, and residence permits for foreigners. In achieving its mission to become a tourism service provider company with excellent service quality, the company is supported by reliable human resources, especially in implementing information technology. This is in line with the increasing intensity of online transactions which pushed the company to employ human resources who are reliable in operating computers.

Based on the above problem background, the authors are interested in conducting a research with the title "**The Influence of Information Technology and Computer Expertise on Accounting Information Systems at PT Bumi Jawa Kayana**".

Theoretical Basis
1. Accounting Information System
a. Accounting Information System Definition

According to Susmanto (2013: 72) "an information system is a collection (integration) of sub-systems both physical and non-physical that are interconnected and work together in harmony with each other to achieve one goal,

namely processing data into useful information".

Bodnar & William S Hopwood (2006) stated that an accounting information system (AIS) is a collection of resources, such as humans and equipment designed to convert financial data and other data into information. This information is communicated to various decision makers.

From the above opinion, it shows that an information system is a set of combination of computer-based and user-based components that are built to collect, store, and process data and produce information for users to achieve certain goals.

b. Accounting Information System Components

The components of an accounting information system consist of several integrated parts that form a system. According to Susmanto (2013: 207) the components of information systems can be grouped as follows:

1) Hardware

Is a form or physical computer in the appearance of electronic data processing. The important components contained in every computer consist of:

a) CPU (*Central Processing unit*)

CPU is often called a processor or computer because of its very important function.

b) *Input Devices*

A big and modern computer system can receive data from a wide variety of input devices. The categories for input devices are as follows:

(1) Online input devices

The various types of online input devices are: *keyboard, pointing devices, scanner, censor,* and *voice recognizer.*

(2) Offline data input devices

Data entry from tape to disk can be done by using *key-to-tape-encoder* and *key-to-disk encoder, key-to-tape-encoder* allows operators to record data to storage media outside of magnetic tape.

(3) Output devices

The various output devices that are often used are:

(a) *Cathode ray tube (CRT)*

(b) *Printer*

(c) *Computer output microfilm (COM)*

(4) Data storage media and device (secondary storage) is a data storage type that are not used by the system while it is running. The most widely used secondary storage media are: magnetic tape, magnetic disk (hard disk), diskette. Optical disk (CD ROOM), flash disk.

2) Software

Software is a program that contains instructions for processing data. The software consists of three elements, namely:

a) Operating Software

It is a program written to relay and coordinate the activities of a computer system.

b) Language Software

It is a program which is used to translate instructions from written programming language into machine language so that it could be understood by the computer.

c) Application Software

It is a program which is written and translated by the language software to finish a particular application.

3) *Procedure*

It is a series of action or activities which is done repeatedly and in the same way.

4) Human Resources *(brainware)*

Human resources are human potentials for their role in the implementation of a system. Brainware involved in an information system consists of:

a) *System analyst* and *programmer*

System analysts are tasked with designing the system in general, determining the system as a whole, and making special designs for certain applications. Programmers are tasked with making file charts (flow diagrams), compiling computer instructions, testing programs, and compiling documents or results. System analysts and programmers must operate separately.

b) *Computer Operator*

The role of a computer operator is to process data until a report is generated and able to work according to the procedures written in the operating manual.

c) *Librarian*

The data library is a place where data and programs are stored in the form of external copy media.

d) *Data Control Group*

It is the part that receives from other departments, relays and oversees the processing of data, and then distributes it to authorized users.

e) *Database Administrator*

It is the person who is responsible for handling the database in an organization.

5) *Database*

Database is a collection of data stored in storage media in a company (broad sense) or in a computer (narrower sense).

6) Communication Network

The network is the key to success in building an information system for a company in order to generate high profits. With good communication network, companies can obtain good information from both internally and externally in a quicker manner when compared to those who do not use it. Therefore, the function of the telecommunications system is to send and receive data from one location to another.

c. Accounting Information System Indicator

According to Delone & Mcleon (2003) in Fauziah (2015:23) the quality of accounting information systems can be measured by the following three factors:

1) *Flexibility,* the existing program can be added or reduced as needed.

2) *Ease of use,* the ease in using and operating the system will help users in utilizing and taking advantage of it.

3) *Reliability,* the endurance of an information system from any error or damage.

2. Information Technology

a. Information Technology Definition

The complete definition of information technology (IT) is stated by Martin et al. (2002) in Ardi (2013: 2), which is a computer technology used to process and store information and communication technology used to transmit information. The definition of IT is very broad and includes all forms of technology used to capture, manipulate, communicate, present, and use the data to be transformed.

The two technologies that underlie information technology are computer technology and communication technology. Thus, information technology is a combination of computer technology and communication technology. Information technology includes hardware, software and related system components that organizations use to create computerized information systems (Simkin *et al.* 2013).

Starting from the review above, it can be said that, information technology is all computer-based technology devices that can be used to input, process data, store data and information and display data and information results and communicate with information users through telecommunication technology.

b. Information Technology Components

Susanto (2014:14) stated that the information technology components are components from the information system itself, which consists of:

1) Hardware
2) Software
3) Brainware

This information technology component is a unity that is interdependent and cannot be separated from one another.

c. Information Technology Indicators

Hakim (2016: 91) in his research measures information technology by using the following indicators: input technology, processing technology, storage technology, output technology, software technology, telecommunication technology.

1) Input technology refers to all input devices used to input and collect data into a computer system, which is measured by using indicators such as: availability of input technology facilities, the quality of input technology, and the sophistication of input technology.
2) Processing Technology refers to all processing technology devices used in processing and manipulating data into information, which is measured by indicators such as: the availability of processing technology, speed of access, and ease of processing data.
3) Storage Technology refers to devices that are available and can be used to store data permanently so that it can be reused as information material in decision making. Storage technology is measured by indicators such as: the availability, capacity, and quality of storage technology.
4) Output Technology refers to all output technology devices that can be used to display and produce information, which is measured by indicators such as: availability of output technology devices, speed of access and capability/quality.
5) Software Technology refers to all application programs that can be used to process and manipulate data into information that can be used in making decisions, which is measured by indicators such as: software technology availability, speed of access in processing data into information, and the working quality of software technology.
6) Telecommunication Technology is all telecommunications technology devices that can be used to communicate, send, or disseminate information to users, which is measured by indicators such as: access speed, ability to communicate, and availability of telecommunications technology facilities.

3. Computer skills

a. Computer skills definition

Computer skills according to Bandura (2006) in Sutabri (2013: 76) refers to user expertise, which can be defined as a belief by someone who has the ability to operate a computer which is influenced by motivation and behavior. Meanwhile, according to Doyle (2005) in Sutabri (2013: 76) user expertise is defined as an individual assessment of a person's ability to use computers/information systems/information technology which is influenced by the education and training that has been received. Based on the above understanding, it can be explained that the user's expertise in the use of computers shows a person's mastery of computers in relation to software packages for computer programs that are supported by the presence of talents both obtained through natural talent and through education or learning.

b. Computer skills indicators

According to Compeu and Higgins in Utomo (2012:16), the user's expertise in using

computers can be assessed from the aspects of expertise in the use of computers, which are:

1) Magnitude

The magnitude dimension refers to the expected level of capability in using computers. Individuals with a high magnitude of computer skills are expected to be able to complete more complex computing tasks. A low magnitude of computing could be due to the lack of support or assistance from management. Meanwhile, a high magnitude of a person's computer skills is associated with the level required to understand a task.

2) Strength

The strength dimension refers to a person's confidence in using computers that they can overcome any obstacles encountered, either by self-study or by attending computer trainings or courses.

3) Generality

The many different hardware and software configurations push individuals who have a high level of computer skill generality to be able to competently use different software packages and computer systems.

Thus, the indicators gathered from the above aspects are:

1) Magnitude

a) The ability to complete a more complex computer tasks

b) There is support and assistance from management

2) Strength

a) The confidence in using computers

b) The ability to complete computer tasks well

c) The ability to confidently complete computer tasks

3) Generality

a) The ability to competently use software packages

b) The ability to competently use different computer systems

Based on the above description, it can be explained that the aspects of computer user expertise can be divided into three aspects, namely: the magnitude aspect related to the expected capability level in using computers, the strength aspect related to the employee's ability to overcome computer disturbances, and the generality aspect related to employees' competence in the use of computer hardware and software.

RESEARCH METHODS

The method used in this research is descriptive method, which is a research method used to describe an event. As stated by Sugiyono (2015: 147): "Descriptive research is a study that aims to provide or describe a situation or phenomenon that is currently happening by using scientific procedures to answer actual problems."

This research used a quantitative approach. According to Sugiyono (2015:8), quantitative research is a research done to examine certain populations or samples by using research instruments for data collection with the purpose of quantitatively/statistically analyze the data to test predetermined hypotheses. The research design used is causality research. Causality research is a study that aims to determine the causal relationship, i.e. if X then Y (Sugiyono, 2015:11). The main purpose of this causal research is to obtain evidence of a causal relationship, so that it can be known which variables are influencing and which variables are affected. In this study, the research was designed to identify and describe the effect of information technology and computer skills variables on accounting information systems.

Variables Operationalization

Research variables, fundamentally, is any kind of things in any form that is determined by researchers to be studied so that information could be obtained and used to draw a conclusion (Sugiyono, 2015). The variables used in this study are:

1. Dependent variable, which is a variable that is affected because of the existence of independent variables. Accounting Information System is a dependent variable. Accounting Information System is a collection of resources, consisting of humans and tools, designed to transform financial and/or other types of data into information.

2. Independent variables, which is defined as variables that affect or become the cause of changes and emergence of dependent variable (Sugiyono, 2015).

a. Information Technology

Information technology refers to a combination of computer technology used to process and store information and communication technology used to transfer information.

b. Computer skills

Computer skills refers to the belief of someone who has the ability to operate computers which is influenced by motivation and behaviours.

RESULTS AND DISCUSSION
1. Respondents profile

As a result of the research done at PT Bumi Jawa Kayana, the following will provide an overview of respondents' characteristics and will be presented in a tabulation of respondents' identities. From the questionnaires that have been filled out by the respondents, the respondent's identity data is obtained. This data is presented below to provide an overview of the respondents' situation and circumstances.

a. Description of respondents based on gender

The presentation of respondents' data by gender can be presented in Table 1.

Table 1. Gender Characteristics of Respondents

No	Gender	Frequency	Percentage (%)
1	Male	18	56.25%
2	Female	14	43.75%
	Total	32	100,0

Source: Processed data

Based on gender, the majority of respondents in this study were male, which is as many as 18 people or 56.25%. The rest 14 people were female, which amount to 43.75% of the respondents.

b. Description of respondents based on education level

The presentation of respondents' data based on education level is shown in Table 2.

Table 2. Respondents' Education Characteristics

No	Education	Frequency	Percentage (%)
1	Diploma/D3	11	34.38%
2	Bachelor/S1	18	56.25%
3	Masters/S2	3	9.38%
	Total	32	100,0

Source: Processed data

Based on their education, most of the respondents are Bachelor/S1 educated, which is as many as 18 people or 56.25%. Other than that, 11 people or 34.38% respondents have Diploma/D3 education while 3 people or 9.38 respondents have Masters/S2 education.

c. Description of respondents based on age

Descriptions of respondents by age group can be presented in Table 3.

Table 3. Respondents' Age Characteristics

No	Age	Frequency	Percentage (%)
1	25-35 years	21	65.63%
2	36-45 years	7	21.88%
3	45-55 years	4	12.50%
	Total	32	100,0

Source: Processed data

Table 3 shows that most of the respondents are aged 25-35 years, which is as many as 21 people or 65.63%, followed by aged 36-45 years with a total of 7 people or 21.88%, and lastly, aged 45-55 years with a total of 4 people or 12, 50%.

CONCLUSIONS

The following is a summary of the results of research on the influence of information technology and computer skills on accounting information systems at PT Bumi Jawa Kayana:

1. The information technology variable has a significant effect on accounting information systems at PT Bumi Jawa Kayana. This means that as the use of information technology gets better, it will have an impact on improving the quality of accounting information systems to be easier to use and more accurate and reliable.
2. The computer skills variable has a significant effect on the accounting information system at PT Bumi Jawa Kayana. This means that the increase in users' computer skills will also increase the quality of accurate and reliable accounting information systems.
3. The information technology variable and computer skills variable simultaneously have a significant effect on the quality of accounting information systems that are increasingly easy to use and relevant. The contribution or the magnitude of the influence of information technology and computer skills is 63.1%, while the remaining 36.9% is influenced by other factors outside this research.

Suggestions

The following are some suggestions from the research results:

1. Companies should carry out regular maintenance on the information technology used in the hope that the software used will not experience any significant problems when used.
2. Users should improve their ability to use software packages on computers so that they can be relied upon to operate accounting information systems at PT Bumi Jawa Kayana.

Future researchers should be able to add other variables that are suspected to affect the accounting information system in the hope to provide more comprehensive research results.

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