



Information Technology on Accounting Information System

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Abstract. Information technology's role in various aspects of business activities nowadays focuses on using information systems to process financial transactions. With the help of information technology, business people can meet their information needs quickly, on time, relevant, and accurately. This study aims at determining the dimensions used in measuring the quality of information technology and the effectiveness of accounting information systems. Besides, it is also to determine the positive or negative impacts caused by changes in Information Technology on the efficacy of Accounting Information Systems. This research used an experimental method. The data collection is done by conducting a literature study and interviews with several informants who use accounting information systems to MSME business players in Bandung City. The results of this study indicate that the determination of the development of Information Technology has proven to have a positive effect on the effectiveness of the Accounting Information System. User satisfaction and system use are the dimensions most widely used to measure the effectiveness of information systems, and hardware, software, brainware, and communication networks are the dimensions most widely used by researchers to measure the quality of information technology.

Keywords: *information technology, accounting information system*

1. Introduction

The accounting information system mostly used to provide users with a faster and more precise financial report to create more efficient financial reports. Traditionally, AIS is a system used by an organization to make a financial report more precisely and quickly. In this case, the system can carry out a process such as financial input, count the number of transactions, and others to make accurate financial reports [1]. This system has been recognized as a more

effective system for handling financial reports through processing in an accounting information system to be able to produce a report that is accurate to improve performance [2]. Information technology (IT) is related to computer applications and equipment for storing and transmitting, and manipulating data. It can also be defined as anything that can make information, perceived knowledge, or create data in a visual format through various multimedia distribution sorts. In addition, machines that help accounting system were invented in 1880. As time passed, technological advances also changed the accounting system and its processes. The Accounting Information System (AIS) has now been developed. Accounting Information Systems are designed to assist management and activities related to the economic and corporate sectors. Nowadays, the accounting system is important for most business entities. Advances in information system technology led to the development of computerized accounting systems that are commonly adopted by business entities. Currently, the Accounting Information System (AIS) has created a competitive market. Therefore, entities can upgrade their systems to better fulfill information needs in order to make better decisions [3].

High-quality information is a product that already has a logo, attributes, or quality that can make the information more valuable to users [4]. Accurate is relevant, timely, and complete [5]. For decades, the value and importance of information and communication systems have played a decisive and pervasive role in the business world. With the rapid changes in technology, globalization and efficient domain expansion are requirements to achieve a competitive advantage. Information technology in hardware, software, volume, and data types and telecommunication networks is developing and changing rapidly [6]. Several factors such as system quality and end-user satisfaction are the information system's trust factors by explaining end-user satisfaction, namely the external response of the information system [7]. Besides, it is also using top management support to achieve end-user satisfaction because of top management support, which greatly affects the decision to use AIS in terms of using tools that support the use of AIS and the techniques used [8] [9].

In conclusion, it uses top management support because it has an important role in any information system implementation [10] [11]. Sustainable changes and rapid advances in economic operations such as accounting are occurring. It has exposed them to such evolution that accounting and accountants' roles have changed and made the associated financial information and data collection as well as presentation reliable and comparable to those required economic departments [12]. An accounting information system's function is to provide past quantitative value, present, and future economic events. AIS can produce financial reports such as cash flow reports, income statements, and balance sheets through a computerized accounting information system. Typically, the system processes data and converts the data into accounting information during the input, processing, and output stages, which can be used by various users from both the internal and the external sector. Thus, the integrity of the effectiveness of AIS can depend on several factors that can be used properly to make it easier for users [13].

The purpose of this study is to examine the effect of using information systems technology such as positive and negative impacts caused by changes in Information Technology on Accounting Information Systems. This research method used experimental methods.

2. Method

This research was done using the experimental method. The experimental research method is used to find the effect of certain treatments on others under certain conditions [14]. This

study used a pre-experimental research method design using the One-Shoot Case Study design from the understanding of the experimental research method above. In this research method, there is a group given treatment. Then, the results are observed. In this experiment, subjects with several types of treatment were measured.

3. Results and Discussion

3.1. Measuring the effectiveness of accounting information systems

Decision-making and planning aid the success of a company. This success is part of the administrative process and has been compiled based on accounting information quality. The effectivity of accounting information systems plays an important role in producing quality accounting information. The accounting information system model according to Allahverdi is shown in Figure 1 [15].

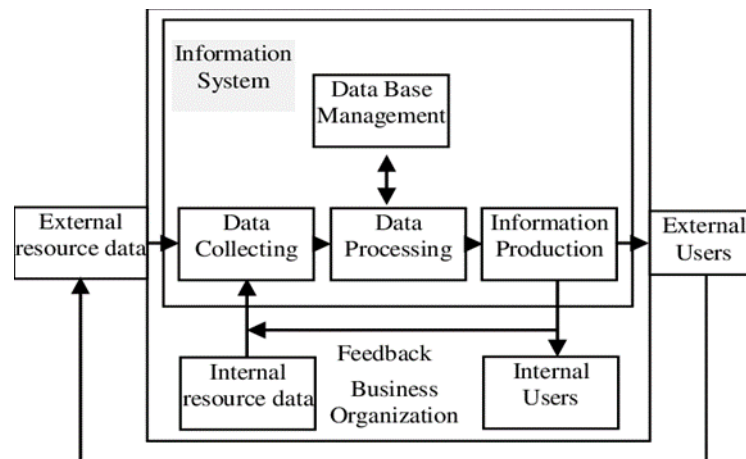


Figure 1. Accounting Information System Model

Based on this figure, we can see that the information system model consists of the input process output, where the input part is the part where the user will input various financial transaction data by the computer system. Then, the process part will process the financial transaction data using computer technology to produce financial information. After that, the output section will release the financial information to various users who need it as evidence that the accountant has successfully prepared financial statements [16].

System Effectiveness as stated by Nicolau is the condition of user satisfaction of information systems or user perceptions of the desired information [17]. This can be expressed as the availability of information that is suitable to what many users want. Furthermore, previous research stated that management's investment in information systems can produce valuable output because it is measured from the information system used, can provide satisfaction to users, and can influence individuals and organizations [7]. Stated, has been using the basis of several studies to assess the effectiveness of information systems implementation [7]. The dimensions used to measure it are system quality, information quality, service quality, system use, user satisfaction, and net benefits. Furthermore, [7] developed a model using five (5) dimensions: system quality, perceived quality of information usage levels, user satisfaction, and use of information systems.

The Technology Acceptance Model (TAM) uses Perceived usefulness and Perceived Ease of Use as an indicator of the dimensions of system use [18] [19]. The measured system use indicators, namely ease of use, usability, and goodness in use [20]. Likewise, measurement of the dimensions of the system used as indicators are [21]: Easy to use (ease of use), easy to learn (ease of learning), Flexible in use (flexibility in use), Security (security). Furthermore, information system user satisfaction depends on the quality of the system and information that can provide value/benefit to its users [22]. User satisfaction is the system provides correct and timely enough information to meet user needs [23]. Stair used the concept of user satisfaction and system use in measuring the effectiveness of accounting information systems [22], then information systems through (1) integration, (2) accessibility, and (3) flexibility [24]. Similarly, Heidman uses four characteristics of quality information to measuring user satisfaction (user satisfaction), namely integration, flexibility, accessibility, formalization, and media richness [25].

3.2. Measuring Information Technology

Information Technology (IT) refers to software, hardware, and all related system components which organizations use to create computerized information systems [25]. Furthermore, IT is the type of technology that is needed for information processing [26]. Specifically, it can be said that IT is the use of electronic computers and computer software to transmit processes, store, protect, change, as well as stop information regardless of time and place. Then [27] argue that information technology refers to the technology side of system information, including, databases, networks, hardware, software and other electronic devices. Research conducted by [28] has proven that hardware, software, brainware, and communication networks are appropriate indicators to measure Information Technology variables. Based on these various statements, it can be stated that hardware, software, brainware, and communication networks are dimensions to measure information technology variables.

3.3. The influence of information technology on Accounting Information System

The important reason for information technology usage in business is their ability to be a supporting unit. Information technology can support various roles: managerial decision-making, competitive advantage, and business operations [4]. Then, Romney had a similar opinion which stated that in the information systems usage, information technology development will provide opportunities for organizations to increase effectiveness and efficiency [29].

These observations indicate that financial reporting in various companies has shifted from manual systems to computerized systems with the aid of modern information technology. Information technology plays a role in improving accounting information system functions in presenting accurate and relevant financial information for various users. The presence of information technology in accounting has a significantly positive impact on the accounting sector's performance. Computer systems and information technology networks have shortened the time it takes for accountants in preparing and presenting financial information to the management and various stakeholders.

Information technology shortens the required time for presenting financial information and improves the accuracy and efficiency of the information as a whole. The internet, software,

and computers and other various digital devices have changed operational way of business entities. Therefore, the progress of accounting information systems will increase along with advances in information technology. Every increase in information system effectiveness would definitely positively impact the improvement of performance in the accounting department because the accounting information systems effectivity can make the work in accounting faster and easier. Therefore, it can be stated that the application of Information Technology in accounting information systems will have an impact on increasing efficiency and effectiveness in decision making because supported by accurate information. This study proves that the effect of increased Information Technology on the effectiveness of accounting information systems can be illustrated by accounting software shown in Figures 2 and 3.

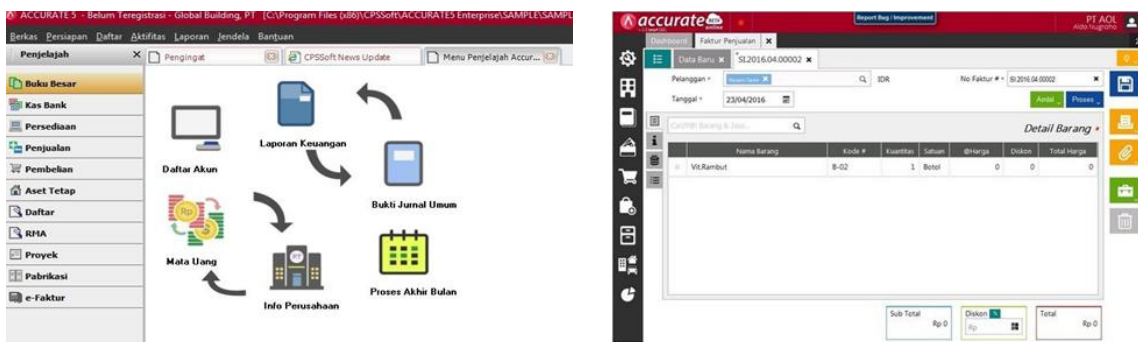


Figure 2. Accurate software views (www.acurate.id)

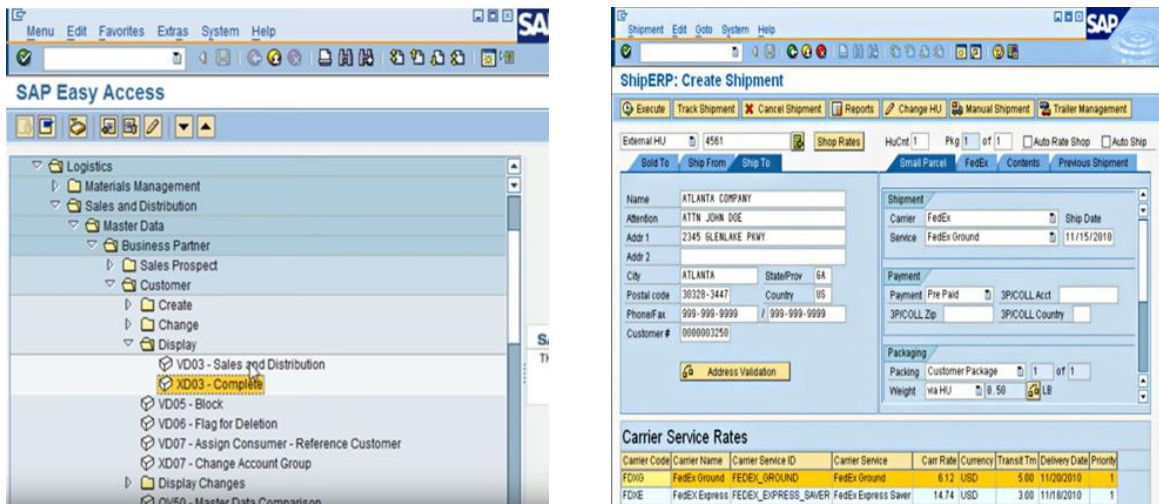


Figure 3. SAP Software Views (www.SAP.com)

In Figures 2 and 3, it can be seen that technological improvements are increasingly improving the quality of accounting software made by a company. In Figure 2, we can see that the current display software/menu features are simpler when compared to Figure 3 (SAP Software), whose features/menus look more complicated. In Figure 2, there is a display that refers to the results of a company's financial statements where on the display page data related to goods data from the company and financial statements are presented. In the picture, there are some descriptions of a detail of an item where the information refers to the price of an item which will later become a price tag on an invoice. Not only that, on this page, we can see what items were purchased and then added up the total goods purchased. If there is a price discount,

the total price will be reduced with a discount. Therefore, if the item has a price discount, the total price will automatically decrease. After the goods are automatically calculated, a button will be displayed to print.

4. Conclusion

Information technology usage has a significantly positive impact on the effectivity of accounting information systems. Human resources utilization can also help the accounting information system to run effectively. This is due to the fact that the level of effectiveness of an accounting information system is linear with the level of human resources. The higher the skills of information system users, accounting information system effectiveness would also increase.

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