The Influence of Information Technology on the Quality of Accounting Information Systems Survey in Bandung City University

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ABSTRACT

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I. INTRODUCTION

In accounting information systems, information technology is useful as a platform for other information system components to be put in place (Laudon & Laudon, 2012: 16). Other components of accounting information systems require effective support from information technology (Blanton, et al., 1992). For effective use of accounting information systems, an understanding of the organization, management and information technology that forms the system is needed (Laudon & Laudon, 2012: 94). The use of advanced information technology makes the process of information availability, information retrieval both internal and external, and previous information becomes faster, and further increases the ease of access to information (Huber, 1990: 65). This is because information technology has undergone a fundamental change, not merely functioning as a tool to process transactions but nowadays information technology has played a role as a weapon that can influence the position of organizational competitiveness (Blanton, et al., 1992).

Information technology must be compatible and provide support to other accounting information system components (Bagranof, et al., 2010: 37). Furthermore information technology becomes a factor that needs to be considered in changing accounting information systems (D.Mancini, et al., 2013: 2). Therefore the main reason for the use of information technology in business is to support the information system to carry out its role (O'Brien & Marakas, 2014: 17).

The phenomenon of information technology in Indonesia is the frequent occurrence of loss of data packages and network degradation that is not conducive to transactions that require timeliness because network quality in Indonesia has not been able to keep up with the development of e-trading (Hermawan Hosein, 2011). Problems with information technology also occur in governments where more than 50% of state agencies have not been connected to BPK's electronic audit (Hadi Purnomo, 2012) and more than 50% of the government e-audit work units have not been connected to BPK (Hasan Bisri, 2012).

Hasan Bisri further explained (2012) that although the information technology at the Ministry of Finance was good, the information technology was incompatible and not yet integrated, the directorate of taxes, customs, and budgets each had their own system. Added by Agus Martowardoyo (2010) that the problems of information technology systems at the Ministry of Finance are: (1) Information Technology Systems are incomplete and inadequate (2) Do not have the readiness of stable service operations and strong memory (3) Do not have integration solutions, each The Directorate General has its own information technology system. Also stressed by Agus Martowardojo (2010), that due to weak and not integrated systems, information technology has become a very expensive cost contributor. There is no information system and technology that supports the reliability of Jamsostek data (Barullah Akbar, 2012).

In most studies of the relationship between factors in the use of information technology and accounting information systems, information technology factors are used as the main variable influencing management practices and models, accounting techniques / methods / policies, and other accounting information system components (D. Macini , et al., 2013: 2). The Ismail & King (2007) study results show that the dimensions of the level of information technology maturity, the level of owner / manager knowledge about accounting and IT, the level of commitment of the owner / manager, the use of experts from government agencies and corporate accounting firms influence the alignment of SIA. The research results of Husein, et al., (2007) explained that the information technology factor is very important in the successful implementation of information systems. Likewise with a study conducted by Mahmoud Al-Eqab & Noor Azizi Ismail (2011) that there is an influence between the four dimensions of information technology (Technological, Informational, Functional, Managerial) on accounting information systems.

Based on the above research background,

the research problem that can be formulated is how much influence the information technology has on the quality of the accounting information system.

II. LITERATURE REVIEW, CONCEPTUAL FRAMEWORK AND HYPOTHESES

2.1. Information Technology

Turban, et al., (2008:17) suggested that Information technology refers to the technological side of an information system. It includes the hardware, software, databases, networks and other electronic devices. This agrees with Bagranof, et al., (2010: 8) which states "Information technology refers to hardware, software and related system components that organizations use to create computerized information systems.

Wilkinson, et al., (2000: 66) states that information technology consists of, mainframe computers, small computers, software, databases, networks and various other technologies (Information technology includes mainframe computers, minicomputers, microcomputers, software, databases, networks, the internet and intranet, electronic commerce and a variety of related technologies). Furthermore, information technology is also interpreted by O'Brien & Marakas (2011: 41) as a computer-based information system to express involvement in the use of computers, hardware, software, internet and other telecommunications networks, as well as using database resource management techniques and various technology-based other computers to convert data into various kinds of information. Baterman & Snell (2004: 6) states information technology means the contemporary term used to describe the combination of computer technology and communication technology (information technology: an contemporary term that describes the combination of computer technology (hardware and software) with telecommunication technology (data, image, and voice network)). Furthermore, according to Turban, et al., (2011: 8) information technology is a term used to describe a collection of organizational, user, and

management information systems that carry out supervision / regulation of the information system. Meanwhile, comprehensive information technology means that all forms of technology are used to create, store, change and use information in various forms, such as business data, voice conversations, moving pictures, multimedia presentations and other forms.

Likewise, according to Hurt (2008: 11) that information technology is the technology needed to produce information using electronic computer equipment and computer software to change, store, protect, do the sending process and bring back the information needed whenever and wherever. From several opinions the experts mentioned above (Turban, et al., 2008: 17; Bagranof, et al., 2010: 8; Wilkinson, et al., 2000: 66; O'Brien & Marakas, 2011: 41; Keen, 1995; Hurt , 2008: 111) information technology means all forms of hardware, software, communication and network technology, combinations formed between these technologies that are used as a means to carry out input, processing and output activities and data storage that produces accounting information, and quality data storage and is required by users O'Brien & Marakas (201 1: 7) states that the components of information technology include: computers, hardware, software, internet and other communication networks, computer-based data resource management techniques and other computer-based information technologies. Then Wilkinson, et al., (2000: 66) suggested that the quality of information technology can be measured by using information technology components as follows: 1) Various devices for entering data 2) Processing data 3) Communicating data from place to place 4) Generating information.

Stair & Reynolds (2010: 12) says that the components of information technology are as follows: 1) Hardware is a computer equipment used to enter all inputs, process them and produce outputs. 2) Software are computer programs that are used in company operations. 3) Database is a collection of facts and information that consists of

two or more data files. 4) Telecommunication is an electronic transmission of signals for communication that enables organizations to carry out processes through effective computer networks. 5) Networks are connecting computers and equipment in buildings, all over the world. 6) The internet is the largest computer network in the world, consisting of thousands of interconnected networks, especially for information exchange.

Laudon & Laudon (2012: 20) states information technology, that is : 1) Hardware is the physical equipment used for input, process, and output activities in an information system. 2) Software consisting of details, programmed instructions that control and coordinate the components (hardware) of computer hardware in an information system. 3) Data management technology consisting of software that regulates the organization of data on physical storage media. 4) Networking and telecommunication technology is a network and telecommunications technology consisting of physical devices and software, connecting various hardware devices and transferring data from one location to another and computers and communication equipment can be connected in a network to share voice, data, images and video. 5) Network is a network of two or more computers to share data or resources.

Bagranof, et al., (2010: 8) argues that information technology components consist of: (1) hardware (2) software, and (3) related system components. Furthermore Thompson & Baril (2003: 36) states that the characteristics of information technology are as follows:

1. Functionality, which is the type of technology and how the technological capabilities used in carrying out the data processing function are: a) Capacity, is how much information can be processed and the users involved in the process. b) Speed is how fast information technology is in processing data. c) Price performance is the value for each information produced compared to the total cost incurred. d) Reliability is the possibility of continuing

to operate without errors or unplanned outages. e) Operating Conditions, is the need for the amount of space needed, electricity needed.

2. Ease of use that is how easy it is to use the technology: a) Quality of user interface is the existence of instructions regarding its use will facilitate the learning. B) Ease of becoming proficient, that is how long it takes to become proficient in using technology. C) Portability, which is easy to carry anywhere.

3. Compatibility is a match between several information technologies that are used: a) Conformance to standards that is information technology in conformance to aplicable standard. b) Interoperability is the ability to interact with other information technologies.

4. Maintainability, which is easy to maintain: a) Modularity is the distribution of information technology at the time of its development. b) Scalability is the ability of information technology to significantly increase or reduce capacity without disruption. c) Flexibility, which is the ability to change important aspects without any disturbance as a whole.

Based on the statements of several experts above (O'Brien & Marakas, 2011: 7; Wilkinson, et al., 2000: 66; Stair & Reynolds, 2010: 12; Laudon & Laudon, 2012: 20; Bagranof, et al. , 2010: 8; Thompson & Baril, 2003: 36) then the dimensions and indicators used for each component of information technology are Functionality, Ease of use, Compatibility.

1. Functionality is the ability of technology possessed to process data: a).Reliability, is the length of information systems in operation (Thompson & Baril, 2003: 36) b) Efficiency, is the ability of information technology to respond quickly, not experience many disturbances. c) Maintainability is the ease of maintaining

information technology

2. Ease of use is the ease of using information technology: a) Ease of becoming proficient is how much effort is needed to become proficient in using it b) Portability, is the information technology can be easily carried anywhere

3. Compatibility is a match between several information technologies that are used: b). Conformance to standards is the suitability of information technology with applicable standards. b) Interoperability / capability, is the capacity or ability of information technology to interact with other information technologies.

2.2. Quality of Accounting Information Systems.

According to Azhar Susanto (2013: 72) that a quality accounting information system is an integrated accounting information system from all elements and related elements that work together harmoniously in order to produce quality accounting information. Quality accounting information is obtained from the results of implementing a quality accounting information system (Sacer, et al., 2006: 6). On the other hand Bagranof, et al., (2010: 5) states that the quality of accounting information systems is a collection of data and data processing procedures that produce accounting information needed for its users (Definition: An accounting information system is a collection of data and processing procedures that creates needed information for its users).

Based on the opinion of the experts above (Azhar Susanto, 2013: 72; Sacer, et al., (2006: 6); Bagranof, et al., 2010: 5), the Quality of Accounting Information System is an integrated accounting information system of various components accounting information systems that are interconnected and work together harmoniously to process financial data into financial information needed for its users

Wixom & Todd (2005) and Huang, et al., (2004) state that the dimensions used in measuring

the quality of information systems are reliability, flexibility, integration, accessibility and timeliness, with the following understanding: Realibility: refers to the reliability of the operating system, Flexibility: the suitability of the system with changes in conditions according to the user's wishes, Integration: refers to the way the system allows data to be integrated from various sources, Accessibility: refers to the ease of access to information that can be accessed or extracted from the system, Timeliness: refers to the extent to which the system offers Fast response according to request. Furthermore Heidmann (2008: 81) explains that the dimensions of the quality of accounting information systems consist of: (1) integration; (2) flexibility; (3) accessibility; (4) formalization; (5) media wealth. Then Cornor (2004: 117) says that the integration of remove the necessary for the system to be rehandled again and again to enter it into multiple systems: (1) send or receive information, (2) lending to increased security, (3) better service for the quest / customer. Next Peter (2008) states that desirable characteristics of an information system are: (1) ease of use; (2) system flexibility; (3) system reliability; and (4) ease of learning, as well as system features of intuitiveness, sophistication, flexibility and response times.

Based on the description above, the dimensions of the quality of accounting information systems consist of integration, flexibility, efficiency, accessibility (Stair & Reynolds, 2010: 57; DeLone, et al., 2003; Weygant, et al., 2010: 199; Romney & Steinbart , 2009: 702; Todd, 2005: 85; Ralph, et al., 2010: 57; Sacer, et al., 2006: 62; Azhar Susanto, 2013: 14; Horan and Abichandani, 2006; Sedera and Gable, 2004; Ong, et al., 2009; Gorla, et al., 2010; Wixom & Todd, 2005; Huang, et al., 2004; Heidmann, 2008: 81; Peter, 2008),

    a. Integration is the integration of accounting information system components consisting of hardware, software, brainware, procedures and communication network technology (Azhar Susanto, 2013: 14; Romney & Steinbart, 2009: 702; DeLone, et al., 2003; Todd, 2005: 85; Sedera & Gable, 2004; Heidmann, 2008: 81; Cornor, 2004: 117; Huang, et al., 2004; Ong, et al., Sacer, et al., 2006: 62). a) Integration of various transaction processing systems (SPT) that work (Azhar Susanto, 2013: 14) b) Harmonious integration of accounting information system components (Azhar Susanto, 2013: 14; Romney & Steinbart, 2009: 702; DeLone, et al., 2003; Todd, 2005: 85; Sedera & Gable, 2004; Heidmann, 2008: 81; Cornor, 2004: 117; Huang, et al., 2004; Ong, et al., Sacer, et al., 2006 : 62).

b. Flexibility, is the system must be able to handle operations and changes that arise in these operations (Delone & McLean, 2003; Sederdan Gable, 2004; Gorla, et al., 2010; Peter, 2008; Heidmann, 2008: 81; Huang, et al ., 2004; Todd, 2005: 85; Romney & Steinbar, 2009: 702; Weygant, et al., 2010: 199; Stair & Reynolds, 2010: 57). a) Easy to learn (Sederdan Gable, 2004; Gorla, et al., 2010). b) Equipped only with useful features and fuctions: only displays the features and functions used by Gorla, et al., 2010; Sederdan Gable, 2004; Delone & McLean, 2003). c) Flexible to make changes easily Gorla, et al., 2010; Sederdan Gable, 2004; Delone & McLean, 2003).

c. The dimension of accessibility is the quality dimension of information systems where the

information needed can be accessed easily from accounting information systems (Stair & Reynolds, 2010: 57; Todd, 2005: 85; Ralph, et al., 2010; 57; Ong, et al., 2009; Huang, et al., 2004; Heidmann, 2008: 81). a) Flexible is an information system that can be accessed is a flexible information system, relating to input, output display, input must not be limited to the keyboard and mouse and output must not be limited to the screen and printer (Stair & Reynolds, 2010: 57; Todd, 2005: 85; Ralph, et al., 2010: 57; Ong, et al., 2004); Huang, et al., 2004; Heidmann, 2008: 81). b) Information can be accessed easily (Stair & Reynolds, 2010: 57; Todd, 2005: 85; Ralph, et al., 2010: 57; Ong, et al., 2004; Huang, et al., 2004; Heidmann, 2008: 81).

2.3. The Influence of Information Technology on the Quality of Accounting Information Systems

The quality of accounting information systems is influenced by information technology, business strategy and organizational culture (Romney & Steinbart, 2009: 32). Then Bagranoff, et al., (2010: 8) states that "one reason for IT's importance is because information technology must be compatible with, and support, the other components of an AIS". Furthermore, information technology is a physical component consisting of hardware, software and networks that form information systems (Huber, et al., 2008: 11).

Information technology components interact with each other to collect, process, store, and provide information needed to support an organization's decisions (Bentley & Whitten, 2008: 5). Information technology has reduced the

stages in the accounting cycle (Hurt, 2008: 27). While Bagranoff (2010: 36) states that information technology functions as a tool in which the components of several systems are integrated with one another.

One of the factors that influence information systems is related to the function of information technology (O'Brien & Marakas, 2010: 517). This is because information technology has an influence on the quality of information systems (Bodnar & Hoopwood, 2013: 3).

Meanwhile the research results of Laksamana & Muslichah (2002: 106) conclude that the higher the information technology will increase the need for information (scope). Likewise, the conclusion of Ismail & King's (2007) research that examined the relationship between technological factors and the integration of SIAs in small and medium-sized companies in Malaysia concluded that the dimensions of the level of information technology maturity and the existence of company information technology personnel were factors related to the unification / alliance accounting information system.

Research Husein, et al., (2007) about the influence of information technology factors on the success of electronic information systems in government organizations, found that technological factors are very important in ensuring the successful use and application of accounting information systems. It was also explained, that all technological factors (information system facilities, information technology staff competencies, information systems integration, user support and information system structure) used in the study had a significant effect on the success of accounting information systems (System quality, information quality, perceived usefulnes and user satisfaction). Then research conducted by Najab Abadi, et al., (2013) provides empirical evidence that there is a significant influence between information technology on accounting information systems. Likewise, research results from Sacer said that

information technology influences the accounting information systems that operate in contributing to preparing, processing, presenting and delivering accounting information significantly contributing to the accuracy and timeliness of accounting information and the quality of accounting information systems (Sacer & Oluic, 2013 : 124).

Research conducted by Petter, et al., (2008) provides empirical evidence that information technology influences the successful implementation of accounting information systems. Furthermore, research conducted by Majed Alsharayri (2012) provides empirical evidence that information technology has a positive effect on the effectiveness of accounting information systems.

As expressed by D.Mancini, et al., (2013: 2) that the influence of information technology on the success of Accounting Information Systems has become a lot of objects of study today, this is because most of these studies have put information technology as research variables The main influence on the accounting rule and other accounting information system components. Specifically D.Mancini, et al., (2013: 3) states that internet technology has a deeper influence on Accounting Information Systems and web technology also influences how accounting information systems are built and used.

Based on the description above, it can be concluded that information technology influences the quality of the accounting information system. The research object is a variable or what is the focus of research, while the place where the research object is attached is the subject of research (Suharsimi Arikunto, 2006: 118). Furthermore according to Sekaran and Bougie (2010: 71) the object of research is also referred to as an observation unit of research variables or something abstract that can produce characteristics of variables and traits that will be the center of attention of researchers. Based on the concept, the object of this research is information technology, and the quality of information systems in private universities in the form of

universities in the city of Bandung. The research method is the method used by researchers during investigations to solve problems (Kothari, 2004: 08). Then according to (Sugiyono, 2013: 2) the research method is a scientific method used to obtain data with specific purposes and uses.