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Behavioral Aspect of Accounting Information System Quality

[1]Ita Salsalina Lingga, [2]Winwin Yadiati, [2]Azhar Susanto and [2]Nunuy Nur Afiah
[1]Accounting Program, Faculty of Economics, Maranatha Christian University, Bandung, Indonesia
[2]Department of Accounting, Faculty of Economics and Business, Padjadjaran University, Bandung, Indonesia

Abstract: Small and Medium-Sized Enterprises (SMEs) play an important role in economy now a days. It is clearly that SMEs are the mainstay of the economy in Indonesia, even of the economy in Southeast Asia. Although, the SMEs are crucial to the economy in terms of sustainable growth and employment but majority of them still face huge problems like limited access to credit as well as to financial information. Therefore, it is very important that accounting information system which is applied by SMEs meet their needs, providing accounting information. Without the support of qualified accounting information system, it is impossible for SMEs to compete and survive. This study aims to examine the influence of organizational commitment to accounting information system quality and its impact on accounting information quality. The results of this study provide empirical evidence that organizational commitment influences the quality of accounting information system and the quality of accounting information system gives impact on the quality of accounting information.

Key words: Organizational commitment, accounting information system quality, accounting information quality, employment, financial information

INTRODUCTION

Small and Medium-Sized Enterprises (SMEs) play an important role in economies, particularly in developing countries like Indonesia. Based on data from the Anonymous (2015a), formal SMEs contribute up to 60% of total employment and up to 40% of national income (GDP) in emerging economy. According to Finance Minister of Indonesia, Mulyani (2016), these companies account for 99% of the total amount of companies that are operating in Indonesia and they create a total of 107.6 million jobs in Southeast Asia's largest economy. Moreover, the World Bank also predicts that in the next 15 years, 600 million jobs will be needed to absorb the growing global workforce, mainly in Asia and Sub-Saharan Africa. All these facts indicate the importance of the existence of these companies.

Although, SMEs have been the main player in Indonesia economy, especially as a large provider of employment opportunities and a generator of primary or secondary sources of income for many households (Tambunan, 2006) but the majority of them did not maintain complete accounting records to prepare financial statements with some did not even preparing it at all.

There are two problems which are emerged as the most important constraints for SMEs in Indonesia: credit constraints and access to information. Based on data from Anonymous (2015b), most of formal SMEs in emerging markets lack access to credit.

As we all know, accounting information is one of the most important types of information. According to Redman as stated by Xu *et al.* (2003), inaccurate and incomplete information, may adversely affect the competitive success of an organization. In other words, Xu *et al.* (2003) emphasised the consequences of poor information quality in accounting. Therefore, it is very important that Accounting Information System (AIS) which are applied by SMEs meet their needs, providing necessary information while avoiding unjustified administrative burden (Anonymous, 2015a, b).

In the midst of today's increasingly relying world of information technology, organizations need information system to survive (Gelinas and Dull, 2008). Lallo and Selamat (2013) also stated that in the business world, there is an increasing dependency on information technology. According to DeLone and McLean (2003), computerized systems can help solve small business problems and thereby improve prospects for success. Furthermore, DeLone argued that computers can help to improve service and increase sales, therefore, they make important contributions for thousands of small firms. Obviously, understanding the successful adoption of

Corresponding Author: Ita Salsalina Lingga, Accounting Program, Faculty of Economics, Maranatha Christian University, Bandung, Indonesia

information technology is largely based upon understanding the linkages among quality, satisfaction and usage.

According to Stair and Reynolds (2016), businesses of all sizes from small enterprises to huge multinational companies cannot survive without information systems to perform accounting and finance operations. Accounting information system is basically the main information system for an organization and serves to provide them with the information they need to perform their jobs (Romney and Steinbart, 2015). Without the support of accounting information system, it is impossible for an organization to compete (Bodnar, 2010).

The three fundamental roles of information systems in business are providing an organization with support for business processes and operations, decision making and competitive advantage (O'Brien and Marakas, 2011). Therefore, qualified accounting information system is required to produce qualified accounting information which is useful both for internal and external users (Wilkinson *et al*., 2000). This is why qualified accounting information system is crucial to all enterprises because it will provide qualified accounting information to support for decision making.

One aspect of behavior that influences the quality of accounting information system is organizational commitment. According to Siegel and Marconi (1989), accounting information system is related to social science (behavioral theory), therefore, aspects of human behavior will influence the quality of accounting information system. This opinion is reinforced by O'Brien and Marakas (2010) that end-user involvement of organizational change and the development of information systems are very important. O'Brien and Marakas further say that the involvement and commitment of top leaders and all related parties is the most basic requirement.

Similarly, Romney and Steinbart (2015) state that the change in behavioral aspect is important, even the best systems will fail without the support of the relevant people. In fact, the survey results which are conducted by Towers Watson, a consulting company in the field of labor show that nearly two-thirds of the more than 32,000 full time workers participating in their study are not highly engaged or committed (Anonymous, 2012). Therefore, this study aims to analyze the magnitude of the influence of organizational commitment to the quality of accounting information system and its impact on the quality of accounting information.

Literature review

Organizational commitment: Organizational commitment display employee's attitude of belonging to the organization (Kondalkar, 2007). Relevant to this opinion, Schemerhorn *et al*. (2010) states that organizational commitment refers to the loyalty of an individual to the organization. According to Greenberg and Baron (2008), the concept of organizational commitment is concerned with the degree to which people are involved with their organizations and interested in remaining with them. In accordance with this opinion, Robbins and Judge (2014) explain that organizational commitment means that an employee identifies with a particular organization and its goals and wish to remain as a member. Organizational commitment is also defined as an attitudereflecting employee's loyalty to their organization and is an ongoing process through which organizational participants express their concern for the organization (Slocum and Hellriegel, 2011; Luthans, 2011). In other words, organizational commitment reflects an individual's identification with and attachment to an organization (Jex and Britt, 2014; Griffin and Moorhead, 2014).

Commitment to an organization involves three attitudes: a sense of identification with the organization's goals, a feeling of involvement in organizational duties and a feeling of loyalty for the organization (Gibson *et al*., 2012). This opinion is supported by Griffin and Moorhead (2014) that attitudes are a person's complexes of beliefs and feelings about specific ideas, situations or other people that will influence their behavior toward organization. According to Slocum and Hellriegel (2011), organizational commitment can be explained as the strength of an employee's involvement in the organization and identification with it. Furthermore, Slocum and Hellriegel (2011) state that strong organizational commitment is characterized by: a support of and acceptance of the organization's goals and values, a willingness to exert considerable effort on behalf of the organization and a desire to remain with the organization. They also argue that organizational commitment goes beyond loyalty to include an active contribution to accomplishing organizational goals.

Based on commitment model which is proposed by Meyer and Allen (1997), it is called "a Three-Component Model of Commitment", the dimensions and indicators of organizational commitment in this study are: affective commitment; continuance commitment and normative commitment. Affective commitment refers to the strength of a person's desire to work for an organization because he or she agrees with it and wants to do so (employee's emotional attachment). Continuance commitment involves commitment based on rational cost-benefit analysis. Normative commitment refers to employee's feelings of obligation to stay with their organizations because of moral or ethical reasons.

Sweeney and McFarlin (2002) also stated that organizational commitment consists of three major parts: affective commitment which refers to an employee's emotional attachment to and identification with the firm, normative commitment which refers to a sense of obligation to or a pressure from others to stay on and continuance commitment which refers to the fact that sometimes people are committed to the firm because a rational cost-benefit analysis has shown that the costs of leaving exceed those of staying.

There is growing support for these three-component models proposed by Meyer and Allen (1997) as indicated by Luthans (2011). These three dimensions are: affective commitment which involves the employee's emotional attachment to identification with and involvement in the organization, continuance commitment which involves commitment based on the costs that the employee associates with leaving the organization and normative commitment which involves employee's feelings of obligation to stay with the organization because they should; it is the right thing to do. On the contrary, George and Jones (2012) argue only two distinct types of organizational commitment: affective commitment and continuance commitment. Affective commitment exists when employees are happy to be members of an organization, believe in and feel good about the organization and what it stands for are attached to the organization and intend to do what is good for the organization. Continuance commitment exists when employees are committed not so much because they want to be but because they have to be.

The concept of three-component model of organizational commitment are also supported by Robbins and Judge (2010): affective commitment which refers to an emotional attachment to the organization and a belief in its values, continuance commitment which refers to the perceived economic value of remaining with an organization and normative commitment which refers to an obligation to remain with the organization for moral or ethical reasons. Similarly, Greenberg and Baron (2008) measure organizational commitment with three dimensions: continuance commitment which refers to the strength of a person's desire to remain working for an organization due to his or her belief that it may be costly to leave, affective commitment which refers to the strength of a person's desire to work for an organization because he or she agrees with it and wants to do so and normative commitment which refers to employee feelings of obligation to stay with their organizations because of pressures from others. People who have high degrees of normative commitment are greatly concerned about what others would think of them for leaving. These three-component models of organizational commitment are also noted by Jex and Britt (2014).

Based on this concept, dimensions and indicators of organizational commitment which are used in this study: affective commitment which consists of two indicators: the desire to do the best due to emotional attachment (caring) and the desire to do the best through participation (involvement) in organization; continuance commitment which consists of the desire to survive (loyal) due to cost considerations (economical) and the desire to survive (loyal) due to impulse needs and normative commitment which consists of the desire to survive (loyal) due to moral responsibility and the desire to survive (loyal) due to ethical considerations (Meyer and Allen, 1997; Sweeney and McFarlin, 2002; Kondalkar, 2007; Slocum and Hellriegel, 2011; Luthans, 2011; Robbins and Judge, 2011; Greenberg and Baron, 2011; Gibson *et al*., 2012; George and Jones, 2012; Jex and Britt, 2014).

Accounting information system: An accounting information system is defined as a collection of data and processing procedures that creates needed information for its users (Bagranoff *et al*., 2010). This concept was developed by Gelinas and Dull (2008) that Accounting Information System (AIS) is a specialized subsystem of information system. The purpose of this separate AIS was to collect, process and report information related to the financial aspects of business events. The same thing is argued by Bodnar (2010) that accounting information system is a collection of resources such as people and equipment is designed to transform financial and other data into information. This information is communicated to a wide variety of decision makers.

Furthermore, Wild *et al*. (2011) explains that accounting information systems collect and process data from transactions and events, organize them in useful reports and communicate results to decision makers. This concept is relevant to the statement of Hall (2011) that accounting information system processes financial transactions and nonfinancial transactions that directly affect the processing of financial transactions. Romney and Steinbart (2015) also state the same thing that accounting information system is a system that collects, records and processes data to produce information for decision makers. More specifically, Susanto (2013) defines accounting information system as a collection (integration) of the sub-system/components both physical and non-physical that are interconnected and cooperate with each other in harmony to process transaction data related to financial issues into financial information.

In line with the statement, Nash and Roberts (1984) states that system is a series of components that interact one to another as an overall unity in achieving goals. This opinion reinforces the explanation of Leitch and Davis (1992) that based on general systems theory, the effectiveness of a system is judged by the integration of sub-systems (components). In order to accounting information system operates efficiently and effectively, all components of the system must be integrated (Leitch and Davis, 1992). Based on the explanation, what is referred to the accounting information system in this study is the integration of the sub-systems/system components to cooperate harmoniously in collecting, recording, storing and processing data to generate accounting information that is related to financial aspects and communicate it to the user for decision making.

Accounting information system quality: In the context of information systems, what is meant by quality is the suitability between the required specifications compared to the used (produced) specifications by the company (Susanto, 2013). According to Fortune and Peters (2005) the criteria in measuring the success of a system are: meeting user requirements, achieving its purposes, meeting timescales and budgets, making the users satisfied and meeting quality standards.

DeLone and McLean (2003) information system success model, systems quality measures technical success. Furthermore, Laudon and Laudon (2014) states that quality is an indicator of how well the end result of a project satisfies the objectives that are specified by management. The quality of an information system projects usually boils down to improve organizational performance and decision making. In other words successful system development means delivering a system that meets user and organizational needs (Stair and Reynolds, 2016).

Basically, system objectives are the most vital elements to an AIS's success (Romney and Steinbart, 2015). The purpose of accounting information system is to facilitate five key procedures: data collection, data maintenance, data management, data control and information generation (Boczko, 2007). Bocij then emphasizes that system integration is a major challenge for the designer of today's systems. In an integrated information system, the flow of information from one system to another is automatic and requires no manual intervention or re-entering of data. Unfortunately, many organizations have limited or no integration among its transaction processing systems (Stair and Reynolds, 2010). From this point of view, accounting information system quality can be defined as the success of integration of sub-systems/system components to cooperate harmoniously in collecting, recording, storing and processing data to produce qualified accounting information that is related to financial aspects and communicate it to users for decision making.

According to Avgerou and Conrnford (1998), there are four dimensions of accounting information system quality: reliability, efficient, maintainability, usability. Boczko (2007) then states six dimensions: reliability, efficiency, integration, accessibility, flexibility and accuracy. Heidmann (2008) argues that accounting information system quality has only five dimensions: integration, flexibility, accessibility, formalization and media richness. In contract with Baltzan and Phillips (2008) who argues five dimensions of accounting information system quality are: flexibility, scalability, reliability, availability and performance. Furthermore Baltzan and Phillips (2014) states seven dimensions: accessibility, availability, maintainability, portability, reliability or accuracy, scalability and usability while Stair and Reynolds (2010), state only four dimensions: flexible, efficient, accessible timely. According to Loudon and Loudon (2014), there are only three dimensions of accounting information system quality: accuracy, timelines and ease of use. From this point of view, the dimensions of accounting information quality in this study are: integration, reliability, flexibility and usability.

The concept of integration measures the degree to which a system facilitates the combination of information from various sources to support business decisions (Heidmann, 2008). Integration in this study refers to the integration within component. Basically, systems integration includes both linking the different modules of a new system together and linking the new system with existing systems.

Reliability can be defined as the ability of accounting information system in limiting data redundancy (Boczko, 2007). Many businesses seek assurance as to the reliability of their information systems (Stair and Reynolds, 2010). Reliability indicates that the hardware and communication components should not crash and the software should be bug-free (Avgerou and Conrnford, 1998). According to Haag *et al*., reliability is intended to ensure that the IT systems are functioning correctly and providing accurate information. Baltzan and Phillips (2008) also state the same thing that reliability means ensuring all systems are functioning correctly and providing accurate information. In other words, reliability is another term for accuracy when discussing the correctness of systems within the context of efficiency IT metrics.

Flexibility basically refers to the ability of accounting information system in providing data modification (Boczko, 2007). According to Haag *et al.* flexibility refers to the system's ability to change quickly. This opinion is supported by Heidmann (2008) that the system must be able to adapt to various needs of users or changing conditions (Heidmann, 2008). In other words, systems must be flexible enough to meet all types of business changes. For example, a system might be designed to include the ability to handle multiple currencies and languages, even though the company is not currently performing business in other countries (Baltzan and Phillips, 2008).

According to Avgerou and Conrnford (1998), usability means that the system must be easy to use, easy to learn and directly serve the needs of people. In other words, usability means the degree to which a system is easy to learn, efficient and satisfying to use (Baltzan, 2014).

Accounting information quality: Accounting information is basically the output of accounting information system and financially oriented (Wilkinson *et al*., 2000). This concept is also noted by Susanto (2015) that accounting information is information generated from accounting information system that exists within the company. Wahlen *et al*. (2013) argues that accounting information is a faithful representation of the underlying economic transactions, events and arrangements when the words and numbers accurately depict the economic substance of what they purport to represent. Every organization needs accounting information in order to make effective decision (Romney and Steinbart, 2015). A relevant statement is noted by Laudon and Laudon (2014) that qualified accounting information is needed in order to make qualified decision. Similarly, O'Brien and Marakas (2010) state that decision making requires qualified accounting information.

According to Stair and Reynolds (2016), accounting information quality means the ability of accounting information helping users meet the goals that organization wants to achieve. In accordance with this opinion, Hardcastle states that accounting information will be useful if it has attributes of accounting information quality. Similarly, O'Brien and Marakas (2010) state that accounting information quality means characteristics or attributes that make the information more valuable to user. In other words, the quality of accounting information is characteristics that accounting information should have to make it more valuable to users (Bagranoff *et al*., 2010; Kieso *et al*., 2012; Wahlen *et al*., 2015).

The dimensions of accounting information quality according to Gelinas and Dull (2008) are: effectiveness, efficiency, confidentiality, integrity, availability, compliance and reliability. Furthermore, Hardcastle suggests that the dimensions of accounting information quality are: timeliness, content and form. In line with the opinion of Hardcastle, Bagranoff *et al.* (2010) presents four characteristics of accounting information quality: useful, convenient format, easy to identify and consistent. On the contrary, Hall (2011) argues that the characteristics of accounting information quality are: relevance, timeliness, accuracy, completeness and summarization. While McLeod and Schell (2007) and Susanto (2013) states that the dimensions of accounting information quality are: accuracy, relevancy timeliness and completeness. From this point of view, the dimensions of accounting information quality in this study are: accuracy, relevancy, timeliness and completeness.

Ideally, all information should be accurate. Accurate means information must be free of material errors and reflects the fact or true condition (McLeod and Schell, 2007; Hall, 2011; Susanto, 2013). Furthermore, information should be relevant to the user's needs because it will support decision making (McLeod and Schell, 2007; Hardcastle, 2008; Hall, 2011; Susanto, 2013). Information should also be available for decision making and presents the realtime condition or timeliness (McLeod and Schell, 2007; Gelinas and Dull, 2008; Hardcastle, 2008; Hall, 2011; Susanto, 2013). Information is complete when it has the correct amount of aggregation and supports all areas of the decision being made (McLeod and Schell, 2007; Hall, 2011 and Susanto, 2013).

The influence of organizational commitment to accounting information system quality: Factors that influence systems success, according to Stair and Reynolds (2010) are good leadership from executives and project managers, a high level of trust in the project and its potential benefits as well as the commitment of the team and organization to successfully complete and implement its results. On the contrary, Clarke (2001) states that poor user involvement is a primary cause of the success or failure of information systems. Similarly, Whiten and Bentley (2007) emphasize that lack of organization's commitment is one of a primary cause of the the failures and limited success of information systems. This opinion is supported by Laudon and Laudon (2014) who state that high levels of user involvement in the design and operation of information systems has several positive results. According to Yeates and Wakefield (2004), commitment is

vital to the success of the system implementation. Without full commitment, the system project is almost bound to fail.

The above theory is reinforced by previous research which is conducted by Basu *et al.* (2002). The research that is conducted on the company's information system developers prove that organizational commitment influences the achievement of strategic planning of information system objectives. Subsequent research that is conducted by Syaifullah (2014) proves that organizational commitment significantly influences the quality of accounting information system. Then Nurhayati (2014) in her research on pension program institution in West Java proves that organizational commitment significantly influences the success (quality) on implementation of accounting information system. In addition, Carolina (2014) states in the results of her research that organizational commitment significantly influences accounting information system quality. Similarly, Rapina (2015) research proves that organizational commitment with dimensions of affective, continuous and normative commitment influences accounting information system quality.

Based on the theories that have been stated above and supported by the results of previous research it can be said that organizational commitment influences accounting information system quality.

The influence of accounting information system quality to accounting information quality: Qualified accounting information system is required to produce qualified accounting information so as to benefit users both inside and outside the company (Wilkinson *et al.*, 2000). In line with that opinion, Gelinas and Dull (2008) state that accounting information system functions to collect the data and then convert it into qualified accounting information so as it is useful for managers and other users.

According to Weber (1999) the quality of information which is generated by an information system is influenced by the quality of information system. The statement supports Laudon and Laudon's (2014) view that an effective (qualified) accounting information system provides accounting information which is accurate, timely and relevant for users. Wild *et al.* (2010) explains that accounting information system serves to generate accounting information that is useful for decision makers. Similarly, Romney and Steinbart (2015) state that accounting information system provides information which is needed by users to complete their work.

The above theory is reinforced by previous research that is conducted by Sajady *et al.* (2008) prove that an effective accounting information system can improve the quality of financial statements. Other research which is conducted by Abdallah (2013) prove that the implementation of accounting information system affects the quality of financial statements. Then, Al-Hiyari *et al.* (2013) state that the implementation of accounting information system will influence the quality of accounting information. Furthermore, Rapina (2015) says that accounting information system quality influences accounting information quality. Similarly research of Fitriati and Mulyani (2015a, b) prove that accounting information system quality influences accounting information quality.

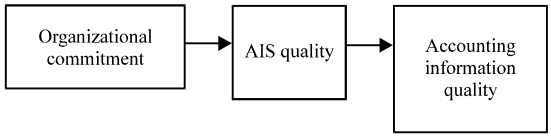

Fig. 1: The conceptual framework

Based on the theories that have been stated above and some recent research results that support the theory, it can be said that the quality of accounting information systems influence the quality of accounting information (Fig. 1).

MATERIALS AND METHODS

This study is categorized as descriptive and explanatory research. In accordance with the objective of testing the theory, the Structural Equation Modeling (SEM) LISREL technique is used in this study. Unit of analyses used in this study is micro, small and medium-sized enterprises which are located in Bandung city. A total of 100 questionnaires were distributed to those MSMEs. Instrument in this study uses 5 point of Likert scale.

According to DeLone and McLean (2014), the average categorization of respondents' score is based on the maximum score range and minimum score which is divided by the number of categories that are desired using the following equation:

$$\text{Range of category score} = \frac{\text{Maximum score-Minimum score}}{\text{Number of categories}}$$

Where:
Range of category scores information:
Maximum score = 5
Minimum score = 1
Number of categories = 4

With the number of categories by 4 then it can be arranged intervals for each category as follows (Table 1):

Table 1: Guideline in categorization on average scores of respondent's answers

Score interval	Categories
1.00-1.99	Not good/very low
2.00-2.99	Less good/low
3.00-3.99	Enough
4.00-5.00	Good/high

RESULTS AND DISCUSSION

Descriptive analysis: In terms of characteristics of companies, the survey findings reveal that based on assets, a great numbers of samples are small enterprises (71%) with net assets from IDR 50 million to IDR 500 million, then micro enterprises (28%) with net assets less than IDR 50 million and medium enterprises (2%) with net assets IDR 50 million to IDR 10 billion. The instrument are composed of total 22 statements consist of organizational commitment (6 statements), accounting information system quality (8 statements) and accounting information quality (8 statements).

An overview of the respondent's data can be used to enrich the discussion. Through the description of respondents data, it can be known how the condition of each variable indicator that is being studied. To be easier in interpreting the variables that are being studied, it is conducted the categorization of the respondent's assessment that are based on the average score of respondent's answers.

Descriptive analysis of organizational commitment: Organizational commitment is measured through three dimensions and operationalized into 6 point statements. Here, is the recapitulation on average score of respondent's assessment of each indicator on organizational commitment variable.

In Table 2, it can be seen grand mean score of respondent's answers regarding organizational commitment on small and medium-sized enterprises in bandung is included in high category. Similarly, when it is viewed by indicator, all of them are included in very high category.

Descriptive analysis of accounting information system quality: Accounting information system quality is measured through four dimensions which are operationalized into 8 points of statement. Here is the recapitulation of average score of respondent's assessment of each indicator on the quality of accounting information system variable.

In Table 3, it can be seen grand mean score of respondents' answers regarding accounting information system quality on small and medium-sized enterprises in Bandung is included in good category. However, when it is viewed by indicator, there is one still included in enough category such as the ability of the system to adapt to various needs of users.

Table 2: Recapitulation on average score of respondent's answers on organizational commitment

Indicators	Mean score	Categories
The desire to do the best due to emotional attachment (caring)	4.39	High
The desire to do the best through participation (involvement) in organization	4.78	High
The desire to survive (loyal) due to cost considerations (economical)	4.84	High
The desire to survive (loyal) due to impulse needs	4.54	High
The desire to survive (loyal) due to moral responsibility	4.87	High
The desire to survive (loyal) due to ethical considerations	4.21	High
Grand mean	4.61	High

Table 3: Recapitulation of average score of respondent's answers on the quality of accounting information system variable

Indicators	Mean score	Categories
Integration between sub systems with system	4.11	Good
Integration between system with environment	4.25	Good
Accounting information system functions correctly starting from inputing data, processing to producing accounting information	4.59	Good
Security of accounting information system functions starting from inputing data, processing to producing accounting information	4.41	Good
The ability of the system to adapt to various needs of users	3.80	Enough
The ability of the system to adapt to changing conditions or environment	4.13	Good
Easy to use	4.39	Easy
Easy to learn	4.04	Easy
Grand mean	4.22	Good

Table 4: Recapitulation of average score of respondent's answers on the quality of accounting information variable

Indicators	Mean score	Categories
The information is free from material errors	4.64	Good
The information reflects the true state of affairs	4.71	Good
The information is in accordance with the intended purpose	4.37	Good
The resulting information can solve the problem	4.26	Good
The information is available when it is needed	4.61	Good
The information is in accordance with the time period of presentation	4.50	Good
The information presents in full all the important things that are useful for decision making	4.68	Good
The resulting information is as complete as what is needed	4.24	Good
Grand mean	4.50	Good

Descriptive analysis of accounting information quality: Accounting information quality is measured through four dimensions which are operationalized into 8 statement points. Here, is the recapitulation of average score of respondent's assessment of each indicator on the quality of accounting information variable.

In Table 4, it can be seen grand mean score of respondents' answers regarding accounting information quality on small and medium-sized enterprises in bandung is included in good category. Similarly, when it is viewed by indicator, all of them are included in good category.

Table 5: Model fit test results

Goodness of fit measures	Estimation results	Expected
Chi-square	747.38 (p<0.001)	p>0.05
RMSEA	0.073	<0.08
GFI	0.688	>0.90
AGFI	0.641	>0.90
CFI	0.946	>0.90
IFI	0.946	>0.90
NFI	0.860	>0.90
RFI	0.848	>0.90

Hypothesis testing: Furthermore, the researchers will conduct a series of quantitative analysis which is relevant to the purpose of this study by using Structural Equation Modeling (SEM). In the SEM method, there are two types of models that are formed, namely the measurement model and the structural model. The measurement model describes the proportion of variance of each manifest variable (indicator) that can be explained in the latent variable. Through the measurement model, it will be known which indicators are more dominant in reflecting latent variables. After the measurement model of each latent variable is described, next it will be described a structural model that will examine the influence of each independent latent variable (exogenous latent variable) to dependent latent variable (endogenous latent variable).

Measurement model: Measurement model is a model that connects between latent variables and manifest variables. In this study, there are three latent variables with the number of manifest variables by 22. Organizational commitment (latent variable) consists of 6 manifest variables, the quality of accounting information system (latent variable) consists of 8 manifest variables and accounting information quality (latent variable) consists of 8 manifest variables. The indicator (manifest variable) is said to be valid if it has a factor weight >0.50 as Hair *et al*. (2006) states if factor loadings ±0.50 or greater are considered practically significant. By using robust maximum likelihood estimation method, we will get the path diagram regarding the influence of organizational commitment to accounting information system quality and its impact on accounting information quality.

Prior to further analysis, it is conducted the test of fit model (goodness of fit) to determine whether the model that is obtained is appropriate in describing the relation between the variables that are being studied so that it can be categorized into a good model. The fit modeling test in structural equation modeling can be seen based on several criteria of model fit testing as it is presented in Table 5.

Through the results of confirmatory factor analysis in Table 6, it can be seen the value of factor weight of each indicator is >0.50. This means all the indicators are valid in measuring the latent variable of organizational commitment. The value of Construct Reliability (CR) by 0.855 is <0.70, it indicates that the six indicators are consistent in measuring organizational commitment. Furthermore, the value of Variance Extracted (VE) of 0.508 shows that on average 50.8%, the information which is contained in each indicator can be reflected through the latent variable of organizational commitment.

Table 6: Test results on measurement model of organizational commitment

Indicators	Loading factor	R^2	Error variance	CR	VE
X_1	0.543	0.295	0.705	0.855	0.508
X_2	0.851	0.725	0.275		
X_3	0.808	0.653	0.347		
X_4	0.566	0.321	0.679		
X_5	0.886	0.786	0.214		
X_6	0.519	0.270	0.730		

Based on Table 6, it is also known that the largest determinant coefficient of determination (R^2) in organizational commitment is expressed by the indicator of willingness to survive (loyal) because of moral responsibility (X_5). These results indicate that the desire to remain (loyal) because of moral responsibility is the most powerful factor in reflecting organizational commitment but the desire to survive (loyal) because of ethical considerations (X_6) is the weakest in reflecting organizational commitment.

Measurement model of organizational commitment variable: Organizational commitment consists of 6 indicators as manifest variable. Based on the results of data processing using Software LISREL 8.7 it is obtained test results of each indicator on latent variable of organizational commitment using confirmatory factor analysis as it is presented in Table 5.

Through the results of confirmatory factor analysis in Table 6, it can be seen the value of factor weight of each indicator is >0.50. This means all the indicators are valid in measuring the latent variable of organizational commitment. The value of Construct Reliability (CR) by 0.855 is >0.70, it indicates that the six indicators are consistent in measuring organizational commitment. Furthermore, the value of Variance Extracted (VE) of 0.508 shows that on average 50.8%, the information which is contained in each indicator can be reflected through the latent variable of organizational commitment.

Based on Table 6, it is also known that the largest determinant coefficient of determination (R^2) in organizational commitment is expressed by the indicator of willingness to survive (loyal) because of moral responsibility (X_5). These results indicate that the desire to remain (loyal) because of moral responsibility is the most powerful factor in reflecting organizational commitment but the desire to survive (loyal) because of ethical considerations (X_6) is the weakest in reflecting organizational commitment.

Table 7: Test results of measurement model on accounting information system quality variable

Indicators	Loading factor	R^2	Error variance	CR	VE
Y_1	0.684	0.467	0.533	0.885	0.493
Y_2	0.794	0.630	0.370		
Y_3	0.793	0.629	0.371		
Y_4	0.665	0.443	0.557		
Y_5	0.707	0.501	0.499		
Y_6	0.589	0.347	0.653		
Y_7	0.651	0.423	0.577		
Y_8	0.712	0.507	0.493		

Measurement model on accounting information system quality variable: Accounting information system quality consists of 8 indicators as manifest variables. Based on data processing, it is obtained test results of each indicator on latent variable of the quality of accounting information system by using confirmatory factor analysis as it is presented in Table 6.

Through the results of confirmatory factor analysis in Table 7, it can be seen the value of loading factor in each indicator is >0.50. This means that all indicators are valid in measuring the latent variable of accounting information system quality. The value of Construct Reliability (CR) by 0.885 is >0.70 indicates that the eight indicators are consistent in measuring accounting information system quality. Furthermore, the value of Variance Extracted (VE) by 0.493 shows that on average 49.3% of the information which is contained in each indicator can be reflected through latent variables of accounting information system quality.

Based on Table 7, it can be seen that the largest determinant coefficient estimation (R^2) of accounting information system quality is expressed by the integration indicator between system and environment (Y_2). These results indicate that the integration between systems and the environment is the most powerful factor in reflecting accounting information system quality, otherwise the system's ability to adapt to changing conditions or environment (Y_6) is the weakest in reflecting accounting information system quality.

Measurement model of accounting information quality variable: Accounting information quality consists of 8 indicators as manifest variables. Based on the results of data processing it is obtained test results of each indicator on latent variable of accounting information quality by using confirmatory factor analysis as it is presented in Table 7.

Through the results of confirmatory factor analysis, it can be seen the weight factor value of each indicator is >0.50. This means that all indicators are valid in measuring latent variables of accounting information quality. The value of Construct Reliability (CR) by 0.887 is >0.70 indicates that the eight indicators are consistent in measuring accounting information quality. Furthermore, the value of Variance Extracted (VE) by 0.496 shows that on average 49.6% of information which is contained in each indicator can be reflected through latent variables of accounting information quality.

Table 8: Test results on measurement model of accounting information quality variable

Indicators	Loading factor	R^2	Error variance	CR	VE
Z_1	0.756	0.572	0.428	0.887	0.496
Z_2	0.718	0.515	0.485		
Z_3	0.641	0.411	0.589		
Z_4	0.634	0.402	0.598		
Z_5	0.736	0.542	0.458		
Z_6	0.699	0.489	0.511		
Z_7	0.750	0.563	0.437		
Z_8	0.689	0.474	0.526		

Table 9: Summary of statistical test results

Sub structure	Path	Coeff	t_{count}*	R^2
First	OC→AISQ	0.267	3.070	0.549
Second	AISQ→AIQ	0.802	8.942	0.644

*t-table = 1.96

Based on Table 8, it is also known that the largest determinant coefficient estimation (R^2) in accounting information is expressed by the free information of material errors indicator (Z_1). These results indicate that information which is free from material errors is the most powerful factor in reflecting accounting information quality, otherwise the resulting information indicator can solve the problem (Z_4) is the weakest in reflecting accounting information quality.

Structural model the influence of organizational commitment to accounting information system quality: Furthermore, to answer the research hypothesis, then the structural model testing is conducted so that it can be known the significance of causal relation between latent variables. Based on the research paradigm, there are two structural models that will be tested in this study which mathematically the two structural models are formulated as follows:

- $AISQ = \gamma_1 OC + \zeta_1$
- $AIQ = \beta_2 AISQ + \zeta_2$

The path diagram of the structural model separately from the measurement model is presented in Fig. 1. Based on the results of data processing, it is obtained coefficient path and test statistics value to the influence of organizational commitment to accounting information system quality and its impact on accounting information quality of small and medium-sized enterprises as it is summarized in Table 9.

Through the path coefficient and correlation values which are contained in Fig. 2, furthermore, it

Table 10: The influence of organizational commitment to accounting information system quality

	The influence		
Variable	Direct	Indirect	Total of influence
Organizational commitment	7.1%	2.8%	9.9%

Table 11: Significance test in the influence of organizational commitment to accounting information system quality

Path coefficient	t_{count}	T_{table}	H_o
0.267	3.070	1.96	Rejected

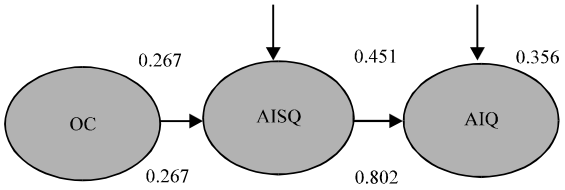

Fig. 2: Diagram of interrelation between latent variables

can be calculated the direct and indirect influence of the independent variable as it is presented in Table 10.

Through the data which is contained in Table 10, it can be seen that organizational commitment gives small influence on accounting information system quality which is only 7.1%.

The influence of organizational commitment to accounting information system quality: The first hypothesis to be tested is the influence of organizational commitment to accounting information system quality in small and medium-sized enterprises with the formulation of statistical hypothesis as follows:

- H_{o1}: $\gamma 1.1 = 0$ organizational commitment does not influence accounting information system quality
- H_{a1}: $\gamma g1.1 \neq 0$ organizational commitment influences accounting information system quality

In Table 11, it can be seen t_{count} value of organizational commitment by 3.070. Since, the value of t_{count} (3.070) is greater than t_{table} (1.96) then at 5% error rate it is decided to reject H_o, so that, H_a is accepted. Thus, it can be concluded that organizational commitment influences accounting information system quality.

The influence of accounting information system quality to accounting information quality: The second hypothesis to be tested is the influence of accounting information system quality to accounting information quality on small and medium-sized enterprises with the formulation of statistical hypothesis as follows:

Table 12: Significance test in the influence of accounting information system quality to accounting information quality

Path coefficient	t_{count}	t_{table}	H_o
0.802	8.942	1.96	Rejected

- H_{o2} : $\beta_{2.1} = 0$ accounting information system quality does not influence accounting information quality
- H_{a2} : $\beta_{2.1} \neq 0$ accounting information system quality influences accounting information quality

In Table 12, it can be seen t_{count} value of accounting information system quality variable by 8.942. Because the value of t_{count} (8.942) is greater than t_{table} (1.96) then at 5% error rate it is decided to reject H_o, so that, H_a is accepted. Thus, it can be concluded that accounting information system quality influences accounting information quality.

CONCLUSION

The results of this study provide empirical evidence that organizational commitment influences accounting information system quality, although, the influence is small, only 7.1%. In other words, the higher organizational commitment is, the quality of accounting information system will increase. Furthermore, the test results provide empirical evidence that accounting information system quality influences accounting information quality. Accounting information system quality significantly influences accounting information quality which is 64.4%. In other words, the better accounting information system quality is the quality of accounting information will increase.

LIMITATIONS

This study has limitations among others, the possibility of bias on respondent's answers as this questionnaire asks the opinions of respondent's which are subjective. In addition, the numbers of respondents that are surveyed in this study are limited both in number and scope.

SUGGESTIONS

For future studies, it is suggested to increase samples size as well as types of business including large enterprises to make comparison.

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