Organizational Factors and Accounting Information System Quality (Empiric Evidence From Manufacturing Firms in Bandung Indonesia)

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Abstract

This research examines the influence of organizational factors such as organizational culture, organizational commitment and organizational structure to the accounting information system quality. The study was conducted by survey method, consist of 32 manufacturing companies (garment and textile business field) in Bandung Indonesia, 74 accounting manager and staff were the observed unit. Multiple regression were used for hypothesis testing. Finnally the research found that organizational culture, organizational commitment and organizational structure influence the quality of accounting information system.

Keywords: organization culture, organization commitment, organization structure, accounting information system

1. Introduction

Accounting is one of the most important activities in various businesses (Gupta, 2011:73). Accounting is basically an information system (Azhar Susanto, 2008:8; Horngren at al., 2012:2; Kimmel et. al., 2011:5; Weygandt *et al*., 2012:4). Laudon dan Laudon (2012:15) explained that the information systems used to collect, store and distribute information to support decision making and control of the organization. Organizations can not survive without adequate and quality information systems (Gellinas, *et al*., 2012:iv) because the information produced from the information systems needed by the organization for decision making (Gellinas, *et al*., 2012:4; Hall, 2008:15).

The most important element of the information system is accounting information system (Banerjee, 2010:8). Accounting information systems are in every organization (Boockholdt, 1999:1) Accounting information system is the integration of sub-systems / components of both physical and non-physical which are interconnected and cooperate with each other in harmony to process the financial transaction data into financial information (Azhar Susanto, 2008:72). Accounting information system is used as a tool for management to provide value-added in order to produce a competitive advantage (Stair dan Reynolds, 2006:6). The purpose of accounting information system is as information provider (Hansen dan Mowen, 2009:4) for operations and decision-making (Wilkinson, 1989:5)

Problems related to information systems in Indonesia, not only occured in private companies such as PT. Social Security who need reform in its information system, but also occured in goverment companies. According to Uchok Sky Khadafi (2012), there were 24 goverment companies potentially as a corrupt state institutions. The weakness of internal control systems or accounting control systems and inaccuracies of financial reporting are considered as a major causal factor and even there were goverment companies who have not been following the financial reporting standards (Sri Mulyani, 2010) and some of the companies do not keep records of the results of acceptance of rent on assets (Hadi Purnomo, 2012). Accounting information who are not qualified make financial statements loses its value beliefs (Hadi Purnomo, 2012). The financial statements cannot be used as a handle to identify and anticipate the circumstances and the basis for decision making (Anwar Nasution, 2011). The condition outlined above, illustrates that there were problems in implementation of accounting information systems, which is characterized by the absence of quality information (Sacer, *et al*., 2006:62). Laudon and Laudon (2007:9) argues that the information system is essential in running the operations of the organization.

One of the organizational factors that affect the information systems is organizational culture (Clarke, 2007:114). Laudon dan Laudon (2012:20) says that organizational culture can always be found embedded in the organization's information systems. Those are two things that are closely related in any organization (Finnegan dan Willcocks, 2007:46). The value of the information system is determined by the relationship between information systems, people, business processes, and organizational culture (Turban dan Volonino, 2011:25).

Organizational culture can be a barrier or an amplifier for a change (Robbins and Judge, 2007:264). Organizational culture is a set of values and beliefs that influence the behavior of members of the organization (DuBrin, 2005:287) and serves as a means to unite the activities of the members of the organization which is consist of a group of individuals with a variety of different backgrounds (Kreitner dan Kinichi, 2003:72).

The results of Coles-Kemp (2009) research showed that organizational factors, one of which is the organizational culture has an influence on the development of information systems. In line with these studies, research conducted by Xu (2011) also said that not only the structure of the organization that must be considered by a company in the development of accounting information systems, but other factors who should be considered is organizational culture. These studies are supported by the opinion of Stair and Reynolds (2010:53) who says that organizational culture has a positive effect on the success of the new information system development.

Another factor that must be considered in the design of information systems is organizational commitment (Schwalbe, 2010:55). In the development of information systems requires not only the support but also the commitment of all levels of the company, starting from top management down to the level of employees (Vucetic, 2008:468). According Vucetic, these factors are very important not only from a financial perspective, but it is more important from the perspective of strategic, in which all employees are required to adjust to the new system to ensure a smooth transition in the organization. The same thing is also described by Bernier and Potter (2001:45), which states that organizational commitment has been linked to the development of performance information systems which are both an integral part that can not be separated. Schwalbe (2010:55) stated that organizational commitment is a very important factor for organization success of the implementation accounting information systems. Schwalbe (2010:55) stated that organizational commitment is an organizational factor which is very important for organization success in implementation of accounting information systems. The purpose of the organization including the implementation of an information system can be achieved more efficiently when the people in the organization is committed (Lucey, 2005:76). Lucey's statement was reinforced by research conducted by Basu, et al (2002) that find empirical evidence that organizational commitment has a positive effect in achieving strategic information systems.

Organizational structure is also an organizational factor affecting information system is the organizational structure (Stair and Reynolds, 2011:77; Stair, 1992:41; Wilkinson, 1999:39). Research conducted by Gordon and Narayanan (1984) and Mukherji (2002) found that the organizational structure and information systems are the two things are interrelated. This was confirmed by Tricker (1993:45) who states that the organizational structure and information systems is a thing that can not be separated because it is dependent on each other. Organizational structure helps organizations to coordinate the performance through the division of tasks (Schermerhorn, 2011:237) and communication (McShane and Glinow, 2005:446) in achieving the goals of the organization (Jones, 2007:7). Therefore, the organizational structure is an important asset of an organization (Schermerhorn, 2011:237). Organizational structure help the implementation of the strategy implemented by the organization (Robbins and Judge, 2007:236; Schermerhorn, 2011:237). If management decides to make changes to the organization, the organizational structure will be modified to support the change (Robbins and Judge, 2007:236). In the effort to develop information systems, hierarchies that exist in the organizational structure must be considered, the hierarchy is the basic framework for the design of information systems (Scott, 2001:8). This is reinforced by research conducted by Nagappan et al (2009), said that the information system is a complex process that involves interactions between processes, people and tools to build the system and the development of information systems should consider the structure of the organization.

The objectives in this research are to measure (1) the influence of organizational culture on the quality of accounting information systems, (2) the influence of organizational commitment on the quality of accounting information systems and (3) the influence of organizational structure on the quality of accounting information systems.

2. Literature Review

2.1 Organizational Culture

DuBrin (2005:287) argued that organizational culture is the system of shared values and beliefs that actively influenced the behavior of organization member. In line with what was proposed by DuBrin (2005:287), Robbins and Coulter (2002:58) explains that organizational culture is a system of shared meaning and beliefs held by organizational members that determines, in large degree how they act. Laudon & Laudon (2012:85) explains the definition of organizational culture from the perspective of information systems, organizational culture is a powerful unifying force that restrains political conflict and promotes common understanding,

agreement on procedures, and common practices. While Azhar Susanto (2008:60) gives a description of the organizational culture as the way in which the human resources within the organization.

Culture is the internal environment of everyday seen and felt by those who work in it, and is the result of the learning process of human resources cumulatively as a reflection of promotion, reward, punishment and the decision taken by an organization. Measurement of organizational culture in this study using the dimensions proposed by McShane & Glinow (2005) and Robbins & Coulter (2012), which are : Attention to Detail; Outcome Orientation; People Orientation; Team Orientation; .Aggressiveness; Stability; Innovation and Risk Taking.

2.2 Organizational Commitment

Greenberg (2011:231) explained that organizational commitment is he extent to which an individual identifies and is involved with his or her organization and/or is unwilling to leave it. In line with this, Mathis and Jackson (2003:75) says that organizational commitment is the degree to which employees believe in and accept organizational goals and desire to remain with the organization. The definition is supported by Smith, et al (2010:31), who suggests that organizational commitment is defined as the relative strength of an employee's identification with the company, hence increasing the desire to maintain membership. Likewise with Kusluvan (2003:524) in his opinion, organizational commitment is defined by many researchers as a statement in which an employee identifies with a particular organization and its goals, and want to maintain their membership in the organization.

Based on the statements described above, it can be concluded that organizational commitment is an emotional attachment that employees of the organization as a form of trust and acceptance of organizational goals and desire to remain in the organization. The dimension of organizational commitment used in this study are affective commitment, normative commitment and continuance commitment Luthans (2008:148); Greenberg (2011:232-233); Woods dan West (2010:114); Kusluvan (2003:525).

2.3 Organizational Stucture

According to Schermerhorn (2011:237) organizational structure is defined as the way in the which the various parts of an organization are formally arranged is usually refered to as the organizational structure.Ditambahkan by Robbins (2003:425), an organizational stucture defines how job tasks are formally divided, grouped, and coordinated. Meanwhile, according to Hall (2008:16), the structure of an organization reflects the distribution of responsibility, authority, and accountability throughout the organization. In line with that statement, Greenberg and Baron (2011:548) says that the organizational structure is the formal configuration between individuals and groups with respect to the allocation of tasks, responsibilities, and authorities within organization. To measure organizational structure in this study, formalization, the delegation of authority, departmentalization and Span of Control (Robbins and Coulter , 2002:256; McShane and Glinow, 2005:449-455; Ivancevich and Matteson, 2002:583-585) have used.

2.4 Accounting Information System

Romney and Steinbart (2012:30) states that the accounting information system is a system that collects, records, stores, and processes data to produce information for decision makers. In line with the above definition, Weygandt, et al (2011:88) also expressed his opinion that an accounting information system collects and processes transaction data and then disseminates the financial information to interested parties. While Bodnar & Hopwood (2010:1) defined an Accounting information system (AIS) is a collection resource, such as people and equipment, designed to transform financial and other data into information. According to Laudon & Laudon (2012:530-531) in general there are five variables measure information systems, namely: scope, time, cost, quality, and risk. Then from the perspective of the quality of the information system, Stair & Reynolds (2010:57) explains that the characteristics of the quality of information system are flexible, efficient, accessible and timely. Meanwhile, Ong et al (2009) measuring the quality of information systems by using the dimensions of reliability, flexibility, integration, accessibility and timeliness. In line with Ong, et al (2009), Wixom and Todd (2005) also use accessability, timelines, language, integration, flexibility, efficient to measure the quality of accounting information systems. Based on Laudon & Laudon (2012:530-531), Stair & Reynolds (2010:57), Ong et al (2009), Wixom and Todd (2005) to measure the quality of accounting information systems in this study using dimensional integration, flexible, reliability, and efficient.

3. Theoritical Framework

3.1 Organizational Culture and Accounting Information System

Organizational culture has a significant influence in the development and operation of information systems (Stair, 1992:45). Stair & Reynolds (2010:53) also mentioned that organizational culture is a positive influence on the successful development of new information systems. Added by Kendall and Kendall (2011:42), organizational culture is an important determinant of how people use information and information systems. Laudon & Laudon (2012:115) says that the information system is designed to serve the needs of the organization and was formed by the organizational structure, business processes, goals, culture, politics and management. Something similar is said by Turban & Volonino (2011:25), that the value of the information system is determined by the relationship between information systems, people, business processes, and organizational culture. Even the success of information systems is not only measured by its efficiency in minimizing the cost, time and resource usage information, but also involved organizational culture (O'Brien and Marakas, 2009:17).

The results of Xu's (2011) study showed that the success of the implementation of accounting information systems is influenced by the organizational factors, one of which is the organization culture. Gray (1988) also said that the cultural influence on the development of information systems. Similar to Gray, the results Bradley, et al (2006) also shows evidence that the corporate culture influence the success of information systems. While Salehi and Abdipour (2011) mentions that the empirical test results on listed companies in Iran showed that one factor that become an obstacle to the establishment of accounting information system is the organizational culture, organizational structure in addition to other factors, environmental factors, etc. Thus it can be said that the culture of the organization should not only be considered when the information system is set up but should still be a concern when information systems are run and developed. Wang and Yeoh research (2009) provide a comprehensive framework to explain how the fit between organizational culture and the type of information system. This framework can be used by managers to create a proper organizational culture and fit with the use of specific information systems. The main contribution of this framework is to describe the influence of organizational culture on the effectiveness of information systems.

3.2 Organizational Commitment and Accounting Information System

One of the factors that influence the development of information systems is the support and commitment (Vucetic, 2008:468). Further Vucetic (2008:468), explained that not only the support of top management but all employees are required to adjust to the new system to ensure a smooth transition in the organization. The purpose of the implementation of information systems can be achieved more efficiently when the people who are in the organization is committed (Lucey, 2005:76). According to Lucey, when employees are committed, they are motivated, management is trying to boost the motivation to use the services of a motivator and through their leadership style. Meanwhile, according to Bernier and Potter (2001:45), and organizational commitment of information systems has linkages can not be separated. The strength of organizational commitment can be seen from the support and acceptance of the goals and values of the organization (Kusluvan, 2003:424). Strong organizational commitment is characterized by a strong belief and acceptance of the goals and values of the organization, a strong willingness to work for the organization, a strong desire to remain a member of the organization (Kusluvan, 2003:525; Hellreigel and Slocum, 2009:57).

3.3 Organizational Sturcture and Accounting Information System

Turban et al, (2003:16) states that the organizational structure is the main thing that must be considered in the preparation of the information system. Hierarchy is the basic framework of the organizational structure for the design of information systems. The larger the organization, the hierarchical structure will be more complex information systems are built, in addition to the span of control within the organization structure also affects information system (Scott, 2001:6). The theory is supported by research conducted by Salehi and Abdipour (2011) who found that the organizational structure is indicated as one of the factors that hinder the implementation of accounting information systems in companies listed in Turkey. Nagappan et al, (2009) research also stated that the information system is influenced by the organizational structure. Added by Indeje and Qin Cheng (2010) that found out that the organizational structure and organizational culture influence the development and implementation of information systems.

4. Research Model and Hypothesis

Based on the prior discussion, the conceptual model is shown in figure below:
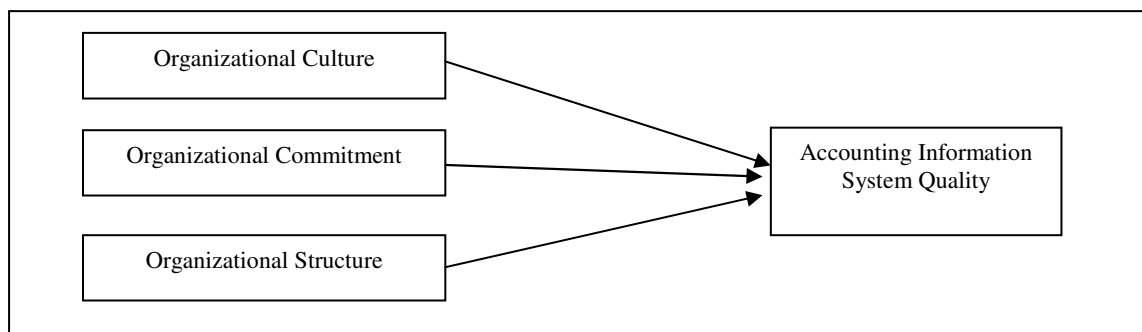

Figure 1. Research Model

The proposed hypothesis in this study are:

Hypothesis 1:

The organizational culture influence the quality of accounting information systems

Hypothesis 2:

The organizational commitment influence the quality of accounting information systems

Hypothesis 3:

The organizational structure influence the quality of accounting information systems

5. Methodology, Finding and Discussion

The survey method was used in this research by using questionnaire. The unit of analysis in this study is manufacturing companies (garment and textile business field), most of garment and textille companies located in Bandung Indonesia. 32 companies are being use as a sample. The respondent of this study are accounting staff and manager. Analysis of data using multiple regression analysis. Ordinal data is transformed into the interval scale with MSI before it is processed for the purpose of verification analysis, and testing through validity, reliability as well as the assumptions of classical test (test for normality, multicollinearity test).

The value of r calculated for all question items in each variable is greater than r table, so that all items are valid questions and accurate as a measure in this study and had a Cronbach Alpha values greater than 0.60, so it can be concluded that reliable questionnaire. The regression equation has fulfilled the classical assumption test. Based on the results of the regression coefficient can be established a regression model as follows:

$$Y = 0,675 + 0,126 \, X_1 + 0,636 \, X_2 + 0.095 \, X_3 + \varepsilon$$

This model describes the estimates or predictions of the quality of accounting information systems. Organizational culture, organizational commitment and organizational structure positively influence the quality of accounting information system. It can be seen from the regression coefficients obtained for the variable of organizational culture (X_1) of 0.126, organizational commitment (X_2) of 0.636 and organizational structure (X_3) of 0.095 which means by paying attention to the organizational factors that will improve the quality of accounting information systems.

5.1 Hypothesis Testing

First Hypothesis - Based on the results of data processing obtained t value for organizational culture (X_1) is 3.624 while the t table (alpha=5%) and degree of freedom 28 = 1,997. First hypotesis is can be accepted. The magnitude of its influence is equal to 55.45% and the rest is influenced by other variables.

Second Hypothesis - Based on the results of data processing obtained t value for organizational commitment (X_2) is 5.906 while the t table (alpha=5%) and degree of freedom 28 = 1,997. Second hypotesis is can be accepted. The magnitude of its influence is equal to 62.17% and the rest is influenced by other variables.

Third Hypothesis - Based on the results of data processing obtained t value for organizational structure (X_3) is 4.526 while the t table (alpha=5%) and degree of freedom 28 = 1,997. Second hypotesis is can be accepted. The magnitude of its influence is equal to 23.16% and the rest is influenced by other variables.

6. Conclusion

Based on the results of this study, can be concluded that organizational culture, organizational commitment and organizational structure influencing the quality of accounting information systems. The quality of accounting information system can be further improved by paying attention to this organizational factors, such as: the characteristic of organizational culture, improvement of organizational commitment and the task and authority which reflected in organizational structure. These factors become imperative not only when the information system created and developed, but also should still be considered at the time when the information system is implemented.

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