How to Attain Accounting Information Systems Quality? (Empirical Evidence from Manufacturing Company in Bandung – Indonesia)

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ABSTRACT

Background: Nowadays many organizations realize that the qualities of accounting information are factors that affect the survival of the companies. Organizations need the information for their operations and decision making process. The lack of its quality will lead to the lose of organization competitive advantage. Accounting information quality only generates through the implementation of quality accounting information systems. Objective: The aim of this study is to investigate the influence of organizational culture, organizational commitment and transformational leadership to accounting information systems quality. Results: The results showed that organizational culture, organizational commitment and transformational leadership significantly influence the accounting information systems. Conclusion: Based on the results of this study, organizational culture, transformational leadership and organizational commitment influencing the quality of accounting information systems and we can conclude from data processing that organizational commitment is one of the factors that has stronger effect than others.

INTRODUCTION

Quality information used by the organization is useful in decision making process (Gelinas & Dull, 2008). Decision-making errors resulting from lack of qualified information will result in a loss (Huang et al., 1999). According to Xu (2009) accounting information quality is a competitive advantage for the organization. Competitive advantage of an organization is an indicator that the organization is superior in making decisions compared to its competitors (Laudon & Laudon, 2012). Financial statements will lose its value due to the lack of qualified information (Hadi Purnomo, 2012). The quality of accounting information is only produced through the implementation of quality accounting information systems (Leitch & Davis, 1992).

Accounting information system is the integration of sub-systems / components of both physical and non-physical interaction and cooperatation with each other in harmony to process the financial transaction data into financial information (Azhar Susanto, 2008). The purpose of the accounting information systems is as an information provider (Hansen & Mowen, 2009) for operations and decision-making (Wilkinson, 1989). The role of accounting information systems is reinforced by research conducted by Sajady et al (2008). They found that the accounting information systems play a role in improving the effectiveness of decision-making, the internal control system, the quality of financial reporting and facilitating the process of financial transactions.

Problems related to the accounting information systems are also revealed by Anwar Nasution (2011). He states that the financial statements cannot be used as a guidance to identify and anticipate the situation and become the basis for decision-making. No exception to the manufacturing companies (garment and textile sector) in Bandung, Bandung as the central of manufacturing companies (garments and textiles sector) in Indonesia, certainly cannot be carried away with it. They should design an integrated information system so that the output produced will meet their information needed.

One of the organizational factors that affects information systems is organizational culture (Clarke, 2007). Organizational culture can always be found embedded in the organization's information systems (Laudon & Laudon, 2012). Those are two things that are closely related in any organization (Finnegan and Willcocks, 2007). According to O'Brien & Marakas (2009), the information systems succes is not only measured by its efficiency in terms...
of minimizing costs, time and resources of information, but is also measured from the organizational culture. The value of information systems is also determined by the relationship between information systems, people, business processes, and organizational culture (Turban & Volonino, 2011).

According to George & Jones (2012) organizational culture is a set of shared values, beliefs, and norms that influences the way employees think, feel, and behave towards each other and towards those outside the organization. This is in line with Robbins & Coulter (2012) that organizational culture is described as the shared values, principles, traditions, and ways of doing things that affect the way of organization members act. Organizational culture can be a barrier to an amplifier or a change (Robbins & Judge, 2007). Azhar Susanto (2008) states the old culture will always persist in dealing with new information systems.

Another factor that must be considered during the design of information systems, is the behavior or human factors (Bagad, 2009). Behavior or human factors, such as motivation, leadership and design work should not be overlooked when designing information systems (Bagad, 2009) and implementing strategy (Daft, 2000). Leadership is the ability to influence others (Vandeveer & Menefee, 2006) in achieving the organization relevant objectives (Ivanicevich & Matteson, 2003). Leadership begins from beliefs and values that make the group move in dealing with internal and external problems (Schein, 2010).

Furthermore, we should not forget that organizational commitment is also important (Schwalbe, 2010). In the development of information systems, it takes not only support but also the commitment of all levels of the company, starting from the top management down to the employee level (Vucetic, 2008). The purpose of the organization including the implementation of an information system can be achieved more efficiently when all of employees have strong commitment (Lucey, 2005). According Vucetic, these factors are very important not only from a financial perspective, but also from the strategic perspective, 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), 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) states that organizational commitment is a very important organizational factor for successful implementation of accounting information systems. While from the standpoint of psychology, organizational commitment reflects how long an employee worked in an organization (Armstrong and Brown, 2006; Bennet and Kaufmann, 2007). Strong organizational commitment is characterized by (1) a strong belief and acceptance of the goals and values of the organization (Lall & Zaidi, 2008; Smith et al, 2010), (2) a strong willingness to work for the organization (Meyer and Allen, 1997; Kusluvan, 2003), (3) a strong desire to remain a member of the organization (Luthans, 2008; Greenberg, 2011). 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 transformational leadership on the quality of accounting information systems and (3) the influence of organizational commitment on the quality of accounting information systems.

2. Literature Review:

2.1 Organizational Culture:

Greenberg & Baron (2008) states that organizational culture as a cognitive framework consists of attitudes, value, behavioral norms, and expectations shared by organization members. Added by Jones (2007), organizational culture is the set of shared values and norms that control organizational member interactions with each other and with suppliers, customers, and other people outside the organization. Furthermore, Colquitt (2011) provide an understanding of organizational culture as follows: “organizational culture as the shared social knowledge within an organization regarding the rules, norms, and values that shape the attitudes and behaviors of its employees. Culture is social knowledge among members of the organization. Employees learn about most important aspects of culture through other employees. This transfer of knowledge might be through explicit communication, simple observation, or other, less obvious methods. In addition, culture is the shared knowledge. It means that members of organizations understand and have a degree of consensus regarding what the culture is. Culture tells employees what the rules, norms, and values are within the organization”.

The definition above can be interpreted that culture is part of the social organization of knowledge relating to the rules, norms, and values that shape the attitudes and behaviors of employees. The definition highlights some issues on organizational culture. Culture is a social knowledge among members of the organization in which members of the organization must learn the important aspects of culture. Culture can be studied through the transfer of knowledge in the form of communication, as well as simple observation, so that members of the organization understand and have a level of agreement on cultural understanding. Culture also notifies members of the organization regarding the rules, norms, and values in the organization.

Laudon & Laudon (2012) 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. Meanwhile Azhar Susanto (2008) 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 sight that is seen and felt by those who work in it, and as the result of the learning process of human resources as a reflection of the promotion, reward, punishment and the decision taken by an organization. To measure organizational culture in this study, I used the dimensions proposed by McShane & Glinow (2005) and Robbins & Coulter (2012), namely: attention to detail, outcome orientation; people orientation; team orientation; aggressiveness; stability; innovation and risk taking.

2.2 Transformational Leadership:
Ivanecovich & Matteson (2003) states that leadership is the process of Influencing others to facilitate the attainment of organizationally relevant goals. Gibson et al (2003), DuBrin (2005) also provide an understanding of leadership is the process whereby one individual influences other group members toward the attainment of defined group or organizational goals; Leadership is the ability to inspire confidence and support among the people who needed to achieve organizational goals.

According to Bass et al (2008) based on the pattern of activity, leadership can be classified into transactional leadership and transformational leadership. Transactional leadership refers to the traditional management practices in controlling the effectiveness of transformational leadership while focusing on the vision and motivation to enable the internal reward system in achieving the objectives. Transformational leadership creates significant changes in the organization and its members. Transformational leadership has the ability to lead change in the organization's mission, strategy, structure and culture and to promote innovation in products and technologies (Daft, 2000).

Transformational Leadership refers to the leader who focus on vision and motivation in achieving the objectives through a system of rewards (Bass et al, 2008), they must have the ability to lead changes in the organization's mission, strategy, structure and culture and to promote innovation in products and technologies (Daft, 2000). They must provide individualized consideration, intellectual stimulation and charisma (Robbins & Coulter, 2012). The Characteristics of transformational leadership are (1) charisma - that gives the vision and mission and embedded pride along with the respect and trust of followers (Vandeveer & Manafee, 2006 and Schermerhorn, 2011), (2) inspiration - communicates high expectations uses symbols to focus efforts, and express important purposes in simple ways (Vandeveer & Manafee, 2006 and Schermerhorn, 2011), (3) intellectual stimulation - promotes intelligence, rationality, and prudence in solving the problem (Vandeveer & Manafee, 2006 and Schermerhorn, 2011), has a knowledge of business, industry and other things related, such knowledge which can be used to create leaders with right decision and think about the implications of the decision (Robbins & Coulter, 2012; Schermerhorn 2011), (4) individual consideration - gives personal attention, treats each employee individually and provide training and guidance (Vandeveer & Manafee, 2006 and Schermerhorn, 2011)

The dimension of transformational leadership used in this study are charisma, inspiration, intellectual stimulation and individual consideration – (Vandeveer & Manafee, 2006; Schermerhorn, 2011).

2.3 Organizational Commitment:
Luthans (2008) argues that organizational commitment is most often defined as (1) strong desire to remain a member of a particular organization; (2) a willingness to exert high levels of effort on behalf of the organization; and (3) a definite belief in, and acceptance of the values and goals of the organization. Furthermore, Greenberg (2011) explained that the organizational commitment is the extent to which an individual identifies and is involved with his or her organization and / or is unwilling to leave it. Mathis & Jackson (2003) states that organizational commitment is the degree which employees believe in and accept organizational goals and desire to remain with the organization. Meanwhile, Hellriegel & Slocum (2009) defines organizational commitment is the strength of an employee's involvement in the organization and identification with it. The dimension of organizational commitment used in this study are affective commitment, normative commitment and continuance commitment Luthans (2008); Greenberg (2011); Woods and West (2010); Kusluvan (2003).

2.4 Accounting information systems:
Romney & Steinbart (2012) argue an accounting information systems is a system that collects, records, stores, and processes the data to produce information for decision makers. According to Weygandt et al (2011) accounting information systems, collects and processes the data transaction and then disseminates the financial information to interested parties. While Bodnar & Hopwood (2010) provide an understanding of an accounting information systems is a collection of resources, such as people and equipment, designed to transform the data into financial and other information. Meanwhile, Wilkinson (1989) defines accounting information systems as an integrated framework within a firm that employs physical economic resources to transform the data into financial information.
Wilkinson (1989) adds that the accounting information system is used to (1) operate and manage the firm’s activities, and (2) report the firm’s achievements to interested parties. According to Laudon & Laudon (2012) 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) explains that the characteristics of the quality of information system are flexible, efficient, accessible and timely. Meanwhile, Wixom & Todd (2005) also use accessibility, timelines, language, integration, flexibility, efficient to measure the quality of accounting information systems. Based on Laudon & Laudon (2012), Stair & Reynolds (2010), Wixom & Todd (2005) to measure the quality of accounting information systems in this study used the dimensions integration, flexible, reliability, and efficient.

3. Theoretical Framework:

3.1 Organizational Culture and Accounting information systems:

Organizational culture has a significant influence in the development and operation of information systems (Stair, 1992). Stair & Reynolds (2010) states organizational culture also provides a positive influence on the successful development of new information systems. Kendall & Kendall (2011) states that organizational culture is an important determinant of how people use information and information systems. Organizational culture can always be found embedded in the organization’s information systems (Laudon & Laudon, 2012). The results of the study Xu (2011) and Carolina (2014) show that successful implementation of accounting information systems must consider organizational factors, one of which is organizational culture. The results of the study Bradley et al (2006) show evidence that corporate culture influence the success of information systems. Similarly to the results of research Coles Kemp (2009) who show that organizational factors, one of which is organizational culture, have an influence on the development of information systems.

While Salehi & Abidipour (2011) states that the empirical testing results on the listed companies in Iran showed that one factor that becomes a barrier to the establishment of the accounting information systems is the organizational culture in addition to other factors such as organizational structure, environmental factors, etc. While the results of research conducted by Jirachieffpattana (1997) explain how culture affects the development of executive information system. Cultural influences can be seen from the objectives, features of, the structure of the development team, the development environment, the method used to determine the information needs. Research Wang & Yeoh (2009) provide a comprehensive framework to explain how the correlation between organizational culture and the type of information system. This framework can be used by managers to create the right 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 Transformational Leadership and Accounting information systems:

In an attempt to make the design of information systems, behavioral factors such as motivation, leadership and work design must be considered (Bagad, 2009). Basically the purpose of the implementation of information systems will be achieved when employees are motivated through the leadership of their leaders (Lucey, 2005). When a company decides to make changes related to technology, leadership role as determinants of success (Bass et al, 2008). Leadership is the ability to inspire confidence and support among the people who need the achievement of organizational goals (DuBrin, 2005). Leadership as one of the factors that affect information systems has been demonstrated by many studies, including the study by Tadjuddin et al (2012). His research show that transformational leadership has an influence on the information systems success in achieving Good University Governance. Similarly, the study by Cho et al (2011), the research results indicate that the transformational leadership has positive influence on the success of information systems.

3.3 Organizational Commitment and Accounting information systems:

One of the influential factors for the development of information systems is the support and commitment (Vucetic, 2008). Further Vucetic (2008), explains that not only the support of top management but also all employees are required to adjust to the new system to ensure a smooth transition in the organization. In line with this Schwalbe (2010) also states that one of the influential factors in the success of information technology is organizational commitment.

The purpose of implementing information systems can be achieved more efficiently when people in the organization is committed (Lucey, 2005). Meanwhile, according to Bernier & Potter (2001) an organizational commitment of information systems has a linkage that cannot 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). 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; Hellreigel & Slocum, 2009). Organizational commitment as a factor influencing the success of information systems has also been demonstrated by many empirical studies, among others: research conducted by Basu et al. (2002) thus find empirical evidence that organizational commitment has a positive effect in achieving the goals of strategic information systems.

The same thing is also attested by Carolina (2014), from few organization factors, organizational commitment is a more dominant factor that affect the successful implementation of accounting information systems. According Cerullo (1997) organizational commitment affects the accounting information systems success through goal setting and objective assessment of the company in the implementation of accounting information systems, defining the required information and processes, evaluation of project proposals objective of accounting information systems, and a review of the program for the development of accounting information systems. While research Li & Jordan (2000) finds that executive information systems have a positive effect on organizational commitment and job satisfaction.

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

**Fig. 1: Research Model**

4. **Research Model and Hypothesis:**
   The proposed hypothesis in this study are:

   *Hypothesis 1:*
   The organizational culture influence the quality of accounting information systems

   *Hypothesis 2:*
   The transformational leadership influence the quality of accounting information systems

   *Hypothesis 3:*
   The organizational commitment influence the quality of accounting information systems

5. **Methodology, Finding and Discussion:**
   The survey method used in this research is by using questionnaire. The unit of analysis in this study is manufacturing companies (garment and textile business field), which most of them located in Bandung Indonesia. 32 companies are being used as samples. The respondents of this study are accounting staff and manager. The data analysis was carried out using Structural Equation Modeling (SEM). The models were estimated using Partial Least Squares (PLS). Ordinal data is transformed into the interval scale with MSI before it is processed for the purpose of verification analysis, and tested through validity.

   Based on the results obtained by processing the data using PLS, the path diagram is obtained as shown in figure 2.

   From the data analysis results of each latent variable, it can be seen (Fig.2) that the value of organizational culture’s loading factors for six indicator are greater than 0.50. This means that they are valid, except for indicator 7 namely innovation and risk taking, the loading factor’s value is below 0.50. The value of composite reliability and cronbach’s alpha are greater than 0.70 so it could be conclude that each indicator has a consistency in measuring the latent variables. The value of variance extracted is 0.619, this mean every information (average 61.9%) which is attached to each indicator can be represented through latent variables.

   The loading factors for each indicator of transformational leadership (Fig.2) are greater than 0.50. This means that all indicator are valid. The value of composite reliability and cronbach’s alpha are greater than 0.70 so it could be conclude that each indicator has a consistency in measuring the latent variables. The value of variance extracted is 0.778, this mean every information (average 77.8%) which is attached to each indicator can be represented through latent variables.
Fig. 2: Path Diagram

Table 1: Summary of CFA Latent Variable

<table>
<thead>
<tr>
<th>Latent Variables</th>
<th>Composite Reliability</th>
<th>Variance Extracted</th>
<th>Cronbach's Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Culture</td>
<td>0.813</td>
<td>0.619</td>
<td>0.843</td>
</tr>
<tr>
<td>Transformational Leadership</td>
<td>0.767</td>
<td>0.778</td>
<td>0.872</td>
</tr>
<tr>
<td>Organizational Commitment</td>
<td>0.917</td>
<td>0.916</td>
<td>0.975</td>
</tr>
<tr>
<td>Accounting Information Systems</td>
<td>0.782</td>
<td>0.609</td>
<td>0.878</td>
</tr>
</tbody>
</table>

The value of organizational commitment's and accounting information systems loading factors (Fig.2) are also greater than 0.50. This means that all indicators are valid. The value of composite reliability and cronbach's alpha are also greater than 0.70 so it could be conclude that each indicator has a consistency in measuring the latent variables.

Furthermore, the value of variance extracted for organizational commitment is 0.916 and for accounting information systems quality is 0.609, this mean every information (average 91.6%) which is attached to each indicator can be represented through organizational commitment and average 60.9% through accounting information systems quality.

Table 2: Summary Hypothesis Testing

<table>
<thead>
<tr>
<th>Path</th>
<th>Coefisien</th>
<th>t_statistic</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>OC → AIS</td>
<td>0.736</td>
<td>5.431</td>
<td>0.541</td>
</tr>
<tr>
<td>TL → AIS</td>
<td>0.493</td>
<td>4.876</td>
<td>0.243</td>
</tr>
<tr>
<td>KO → AIS</td>
<td>0.876</td>
<td>6.169</td>
<td>0.767</td>
</tr>
</tbody>
</table>

From R-square (presented in table 2), we can seen that 54.1% of accounting information system is influenced by organizational culture, 24.3% is influenced by transformational leadership and 76.7% influenced by organizational commitment.

Based on the results of data processing as summarized in table 2, it can be concluded that all of the hypothesis proposed in this research, are acceptable. It can be seen from the amount of t_statistic value which is greater than t_critical (1.96). The results give an empirical evidence that better organizational culture, effective transformational leadership, and better organizational commitment will improve accounting information systems quality.

6. Conclusion & Suggestion:

Based on the results of this study, can be concluded that organizational culture, transformational leadership and organizational commitment influence the quality of accounting information systems. From the data processing can be concluded that organizational commitment is one of the factors that has stronger effect than others. Thus, by paying attention to the emotional attachment in this case, the employees of the company will affect the implementation of accounting information systems. To improve the organization's commitment is by giving motivation, advising, and encouragement as they have implications for the achievement of the goals of information systems. The quality of accounting information systems cannot be achieved due to the lack of aggressiveness. There are employees who are less comfortable with accounting information systems currently implemented in the company therefore still retain old habits. Finally, the lack of effective transformational leadership is mainly due to the lack of charisma which is practiced by their leader. For those who are willing to research this topic, can test other variables that affect the quality of accounting information systems such as...
organizational structure, internal control and top management support.

ACKNOWLEDGEMENT

I would like to give my deep thanks to Prof. Dr. Azhar Susanto, for his guidance and direction finally i could finish this research.

REFERENCES
