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**Analysis of Factors Affect to Organizational
Performance In Using Accounting Information Systems
Through Users Satisfaction and Integration Information
Systems**

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Abstract

The aim of this research is to investigate the factors affecting organizational performance in using accounting information system through users satisfaction and integration information systems. The research respondents were 447 companies that listed in Indonesian Stock Exchange. The data are gathered through consensus method and in total there are 176 responses with complete data. Structural Equation Model (SEM) is used in analyzing the data and system theory is utilized in this research. The result shows that knowledge management systems and management control system have significant influence on users satisfaction and integration information systems. Integration information system and users satisfaction has positive significant on organizational performance.

Keywords: Knowledge Management, Management Control Systems, Organizational Performance; user satisfaction; integration information systems

INTRODUCTION

The complexity of the development of the business world today, requires a change of strategy on business practices that have been done. The change in strategy is done with the aim that the company can still compete and improve its performance (Sigalotang, Pontoh & Syahrir, 2006). This can be seen from the

changes around us, for example the phenomenon of many vendors of technology-based accounting information system services. This shows that the role of accounting information system is becoming increasingly following the trend of information technology development (McLeod & Schell, 2006).

Accounting information system provides the infrastructure that has many potential for finding and testing the assumptions used and the relationship managers to change from an abstract summary of the data into a more detailed record of the activities of the organization. Integration information systems in the company can be used as Enterprise Resource Planning or ERP. Company performance is the end result of a company with several conditions, such as having a target achieved within a certain timeframe and being carried out in predefined efficiency and effectiveness standards (Bernardin, John & Joyce, 2003; Gibson, Ivanisevic, Donnelly & Konopaske, 2012). Company performance is an important component in determining company business policies (Dess & Richard, 1984). Company growth is expected to increase if the company's performance is good. Good corporate performance can be assessed from the extent to which the company manages the information system effectively in optimizing the system to generate revenue (McLeod & Schell, 2006).

Knowledge management has evolved into one of the most important subjects in the world of information systems and is often discussed in scientific forums, and has become a major part of building an enterprise information system along with customer relationship management (CRM), supply chain management (SCM) and enterprise resource planning (ERP / ISI). Knowledge management can provide access to the information needed to do the job better than what has been done in the past. In this case, knowledge management does not provide answers to problems but facilitates the willingness to learn answers (Call, 2005). As individuals learn something, they will gain knowledge stored in their personal memory and used both now and also as a basis for the transformation of new knowledge (Aggestam, 2006). Chapman & Kihn (2009) examined regarding technology and control, the results of the study suggest that investment in the integration of information systems and management control systems, can be obtained by using the budget system as a tool to control and monitor the system integration process. Budget is possible use as a "control" and has a direct influence on the success of the system and the performance of the company (Chapman & Kihn, 2009).

Management control system is performed using the budget as a means of controlling includes the part of management control system that is kind of interactive control system (Abernethy and Brownell, 1999; Tekavčič, Peljhan and Sevic, 2008). To further control, variables were performed using the budget system in this study will be mentioned as a control system of accounting or accounting system control. Based on the resource-based view (RBV), the ability of competing companies is a function of the value of the unique resources and capabilities of the company (Wernerfelt, 1984), and RBV also believes that the capability as one of the main sources, the company then the sustainability of

competitive advantage can be achieved (Peteraf and Barney, 2003). Henri (2006) adds capabilities as one of the company's strategies of sustainability of competitive advantage that can contribute to the company's performance.

The integration information system used by a company is expected to be able to process and analyze transactions and financial reporting efficiently and accurately so that the company can inform the data of financial transaction (accounting data) quickly to its users (Hitt, Wu & Zhou, 2002). Referring to Poston & Grabski (2001), which revealed that the implementation of information systems integration is expected to improve the ability of users ie decision makers within the company by utilizing information that has been provided by information systems integration. This information integration system provides information that can be acquired and shared by each company manager and can be used to monitor and control company performance (Davenport, 1998). Furthermore, according to Poston & Grabski (2001), effective information system is expected to improve the quality of decisions taken, so that the effectiveness of information systems can help in improving company performance.

This research was conducted on companies listed in Indonesia Stock Exchange. The selection of the study population was conducted for the purpose of data collection so that maximum results can be obtained. There are six problems such as whether knowledge management effect on the integration information systems and user satisfaction; whether the management controls system effect on the integration information systems and user satisfaction; whether the integration information systems and user satisfy affect the company performance.

LITERATURE REVIEW

System Theory

The system theory provides an (implicitly or explicitly) basis for many of the studies, theories and concepts developed in computer science and information management systems. For example, to explain the application of technology, especially information and communication technology, within the organization. System Theory is an entire discipline that aims at formulating common law, and rules on state and behavioral systems (Maier, 2007). In a modern enterprise, system theory and cybernetics can be traced back to the works of Von Bertalanffy (1949) & Wiener (1948). Malmi and Brown (2008) add the principles of system theory and cybernetics have a long relationship with the concept of control. Opinions from (Green & Welsh, 1988) define cybernetic controls as "a process in which feedback is represented using performance standards, measuring system performance, comparing performance with standards, obtaining information on unwanted variations in the system, and modifying systems that are no longer appropriate to the needs of the company. Furthermore, Malmi & Brown (2008) explains in the organization, cybernetic systems can be information systems or control systems depending on the

function and usage. There are four basic cybernetic systems that have been identified in the accounting research that is; budgets, financial measures, non-financial measures and derivatives from combining financial and non-financial measures such as a balance score card (BSC).

A contemporary organization desperately needs knowledge. Because the organizational capability of creating, identifying, sharing and applying knowledge directly can affect competitive advantage. Source of knowledge in the organization is in the form of information technology (Sambamurthy and Subramani, 2005). In support of all knowledge management activities in the organization, the organization uses specially designed system information (Alavi & Leidner, 1999). These systems include intranets, search engines, document repositories (Hansen and Haas, 2001), and collaboration tools that enable virtual community practice to take place (Wasko & Faraj, 2005; Wenger, 1998) Information technology tools support knowledge management activities that provide features to support certain communications and collaborative practices in facilitating the development of enterprise sharing within the organization.

Information technology can simplify the practice of virtual communication (Javenpaa and Majchrzak, 2008; Boland et al.1994) .The information technology can be designed to facilitate communication by supporting data ownership, facilitating document retrieval, making it easy to compare data, making it easier to present data (Boland et al., 1994). Information technology can indeed provide a conducive communication context in the practice of communication and support knowledge management practices (Majchrzak et al, 2004).

Hypothesis Development

Knowledge Management, Integration Information Systems and User Satisfaction

Organizations use information technology including the integration of accounting information systems to support knowledge management in organizations. Information technology supports effective and frequent communication within the organization through personalization (Alavi and Leidner 2001; Hansen et al., 1999). Information technology improves the ability of knowledge sharing within the organization (Alavi and Leidner 2001).

Previous research on computer communications suggests that the use of information technology can facilitate the sharing of knowledge among group members (Wheeler and Valacich, 1996). Many organizations develop knowledge repositories and forms of community practice that are supported by using different types of information technology to promote knowledge sharing within the organization(Wheeler and Valacich, 1996). Gupta et al., (2009) added IT to facilitate knowledge sharing within the company. To make information resources productive, the information resources must be converted into knowledge that has the ability to be used as a new resource that has added

value to the company. To convert it required an information system that has the level of integration of all corporate information resources. This research is to see the effect of integration of accounting information system to knowledge management. Thus the proposed hypothesis is as follows:

User perceptions of performance improvements using the information system is one of the benchmarks of system user satisfaction. Information systems integration is appreciated from research problems (Granlund & Malmi, 2002). Research Granlund and Malmi (2002), found advanced management accounting techniques and traditional management accounting (for example, budget) operated in a separate system, therefore management accountants need to have an integrated ERP system in some cases for routine task analysis. The benefits of knowledge management on the performance of an organization are empirically investigated and verified by researchers (Becerra-Fernandez & Sabherwal, 2001; Jayachandran, Sharma, Kaufman & Raman, 2005). Furthermore, some researchers who examine the creation, storage, learning, dissemination, and sharing of effective knowledge on business performance can be increased (Gold, Malhotra & Segars, 2001; Mutiran & Mohamed, 2003). Finally, research from Tsai, Li, Lee & Tung (2011) examines the effect of ERP implementation on business performance moderated by knowledge management

H_{1a}: *Knowledge Management has the positive effect on the Integration information system.*

H_{1b}: *Knowledge Management has the positive effect on the User Satisfaction.*

Management Control Systems, Integration Information Systems, and User Satisfaction

Integration information systems provide functionality implications for the development of control systems that provide information to the user. This can contribute to the practice of internal transparency directly (Kallinikos, 2005). Chapman and Kihn (2009) demonstrated the integration of accounting information systems contribute to their global transparency as an attempt to map the extensive process, and run the accounting structure that is often reported on aspects of accounting information systems integration (Bashein, Mark and Finley, 1997). Integration of accounting information systems that increase will affect the control of the company's accounting system. From the description above, the proposed hypothesis is as follows:

H_{2a}: Management control systems have positive effect on the Integration information system.

H_{2b}: Management control systems have positive effect on the User Satisfaction.

Integration Information Systems and Organizational Performance

Barney, Wright & Ketchen (2001) suggests the potential of Integration of information systems have an influence on performance. It is also supported

from information and communication technology is a source for long-term competitive advantage since using Information System Integration (Carr, 2003; Davenport, 2006). Poston & Grabski (2001); Hunton, Lippincott & Reck (2003) show complex results from relations between Enterprise Resources Planning and company performance.

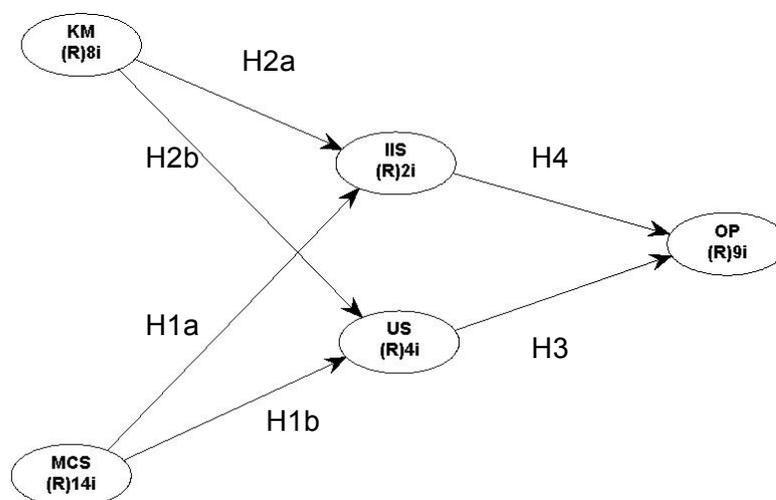
H₃: Integration Information Systems has positive effect on the Organizational Performance

User Satisfaction and Organizational Performance

Most practitioners and researchers want to measure the benefits of technology, changes, or other impacts to the organization in terms of the impact on the organization's financial performance, whether increasing profits, reducing costs, adding equity, or similar impacts. Most researchers use system theory in explaining the impact of technology in improving company performance (Wade and Hulland, 2004; Melville, Kraemer, and Gurbaxani, 2004). Expanding Other research on user satisfaction and its impact on financial performance has been divided into strategic perspectives and operational perspectives (Tallon, Kraemer & Gurbaxani, 2000). The strategic perspective focuses primarily on issues of corporate structure and the impact of Information Systems to enhance strategic positions. On the other hand, operational perspective is more concerned with the impact of information systems in terms of internal value to business. Furthermore, Tallon, Kraemer & Gurbaxani (2000) found that operational perspectives are still the most prevalent in the company as they focus on cost reduction and improve quality and efficiency. This is consistent with previous research on the effectiveness of information systems in which the use of information systems affects corporate financial results (Brynjolfsson & Hitt, 1996; Sircar, Turne & Bordolo, 2000) . Therefore, the proposed hypothesis is as follows:

H₄: Users Satisfaction has positive effect on the Organizational Performance

Figure 1. Research Framework



METHODS

Population and Sample

This research was conducted on companies listed in Indonesia Stock Exchange. This research used census method for all the population of 447 companies. The data are obtained through questionnaires and was sent through postal delivery to the respondents.

Variable Measurement

There are five variables in this research such as knowledge management, integration information systems, users satisfaction, management control systems and organizational performance.

Independent Variables

1. Knowledge management use the measurement from Tsai, Li, Lee & Tung (2011).
2. The measurement of Management control systems use Chapman & Kihn (2009).

Intervening Variables

1. Integration information systems use the measurement by Chapman & Kihn (2009).
2. Users satisfaction use the measurement by Tsai, Li, Lee & Tung (2011).

Dependent Variable

The instrument use to measure organizational performance, which was built by Govindarajan (1984)

FINDINGS

The questionnaires gathered from 179 respondents and only 176 can be used for this research. Data analysis was conducted by applying Structural Equation Modeling (SEM) with Warp PLS. Based on the figure 2, it can be seen that all relationships between the independent and dependent variables show a positive and significant results at a confidence level $P < 0.01$ unless the relationship between knowledge management with the integration of information systems is not significant.

Figure 2. The Result from Warp PLS

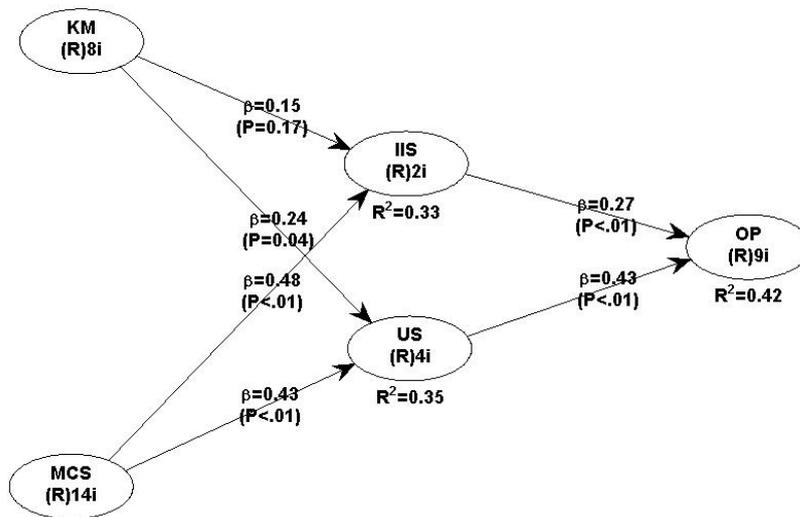


Table 1. Result Research

Hypotheses	Hypothesis	Result
H1a	Knowledge management has positive effect on the integration information systems.	Supported
H1b	Knowledge Management has positive effect on	Supported
H2a	Management control systems have positive effect on the Integration Information systems.	Supported
H2b	Management control systems has positive	Supported
H3	Integration information system has positive	Supported
H4	Users satisfaction has positive effect on firm	Supported

Knowledge Management, Integration Information Systems and Users Satisfaction

The results of this study indicate that the higher knowledge management applied in the company will cause the higher performance of the company through the integration information system performed and users satisfaction is perceived. Conversely, the lower application of knowledge management will lead to lower corporate performance through Integration Information System and perceived Users satisfaction. Further Warp PLS output results show that the relationship between knowledge management with Integration Information Systems is positive at (0.15, $p = 0.17$, * $\alpha = 20\%$). and for knowledge management relationship with User Satisfaction is very strong and statistically significant at (0,28, $p = 0,04$, * $\alpha = 5\%$). These results provide support for the first hypothesis.

The argument over the acceptance of these first and second hypotheses is as follows; companies that use information integration systems are believed to have a high level of understanding of how knowledge management helps

companies improve performance.

Management control systems, Integration information system and Users Satisfaction

The results of this study indicate that the higher the level of use of accounting information systems integration applied in the company will lead to higher levels of management accounting systems undertaken by the company. Conversely the lower level of the use of accounting information systems integration will lead to lower levels of management accounting systems undertaken by the company. Based on the results of empirical research data processing show that the accounting information system integration path analysis has estimated coefficient on the control system of accounting for 0.573. These results meant that the integration of good accounting information systems and produce information in accordance with the expectations of users supported by the presence of a good control system. The results of data processing with WarpPLS 3.0 shows that the relationship between accounting information system integration and control of the accounting system is a very strong positive and statistically significant (0.48 , $p < 0.001$) and (0,43, $P < 0.001$). These results provide support for the second hypothesis.

Arguments over the acceptance of this hypothesis is as follows; companies that use information system integration is believed to have a high level of understanding of how to control the accounting system to help companies improve performance. Control of the accounting system requires every piece of information systems to be able to give the best results that provide all the information required by the company in a way that is true and accurate. According to the resource-based view theory, resource accounting system controller will be a set of control systems by providing information and decision support systems are able to detect unwanted deviations and activities that affect deviations (eg. in the production process) without the involvement of others. Flamholtz, Das and Tsui (1985) added a control system as: " the efforts of the organization to improve the understanding of individuals and groups that behave the same way towards achieving organizational goals. So the control system run by the organization to act as a " technique and process for achieve goal congruence can be designed for all levels of influence behavior: individuals, small groups, formal and organizational sub- units as a whole (Flamholtz , Das and Tsui, 1985).

Integration information system with Organizational Performance

The results of this study indicate that the higher the level of use of accounting information systems integration applied in the company will directly cause an increase in the company's performance. Conversely the lower level of the use of accounting information systems integration it will not lead directly into the low performance of the company. The results of empirical research shows that the accounting information system integration path analysis has estimated coefficient on the performance of the company amounted to 0,27. These results meant that the success of the system is perceived by companies to encourage

improved performance of the company, by acquiring a positive response and successful in supporting business decision-making process. Warp PLS results indicate that the relationship between accounting and information systems integration firm performance is positive and statistically significant at (0.27, $p < 0.01$). These results provide support for the third hypothesis.

Arguments over the support of this hypothesis is as follows; accounting information system integration is a variable that directly affect the performance of the company, so to influence the accounting information system integration with the company's performance proved the need for mediating variables so that the integration information systems affect the performance of the company.

Users satisfaction with organizational performance

The hypothesis of research that states that there is a positive influence between users satisfaction on company performance gets empirical support. The results of this study indicate that the higher levels of perceived users satisfaction within the company will make the company's performance increasing. Conversely, the lower level of users satisfaction perceived by the company will make the performance of the company to be down. The WarpPLS results show that the relationship between users satisfaction and firm performance is positive and very strong is statistically significant at (0.43, $p < 0.001$). This result provides support for the fourth hypothesis.

The argument for the acceptance of this hypothesis is as follows; users satisfaction perceived because the company uses accounting information system has been able to encourage companies to achieve improved performance. The company feels very right to have succeeded in implementing an integrated information system that helps companies improve performance. According to (Andreu & Ciborra, 1996; Bradford & Florin, 2003; Chapman & Kihn, 2009; Nicolaou & Bhattacharya, 2008; Wade & Hulland, 2004; Zhu, Li, Wang & Chen, 2010) stated satisfaction in the implementation of accounting information systems other than based on on the performance of the system in processing input and output, also influenced by the environmental resources that are located around the system is located. So that a good information system is generated also from a good organizational environment, which will produce quality information and useful and relevant for decision making.

CONCLUSION

The result shows that knowledge management have significant and positive impact on the integration information system and users satisfaction. Furthermore, management control systems have positive relationship with integration information system and users satisfaction. Finally, Integration information system and users satisfaction are significant and have positive impact on organizational performance. Companies that use information integration systems are believed to have a high level of understanding of how knowledge management helps companies to improve performance.

Furhermore, companies that use information system integration is believed to have a high level of understanding of how to control the accounting system to help companies improve performance. Moreover, accounting information system integration is a variable that directly affect the performance of the company, so the influence to the accounting information system integration with the company's performance proved the need for mediating variables so that the integration information systems affect the performance of the company. Finally, the companies success in implementing an integrated information system that can help improve companies' performance.

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