# ORGANIZATIONAL COMMITMENT, IT INFRASTRUCTURE AND ACCOUNTING INFORMATION SYSTEM'S QUALITY

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Abstract: System implementation and also the success of implemented accounting information system in an organization is a crucial matter. The quality of accounting information system will affect the quality of the information produced by this system. At the end, the quality of accounting information will improve the decision making process within an organization. Many theories explained about factors that affected the quality of accounting information system. Organizational commitment and IT Infrastructure predicted to be the main factors that will affect the quality of accounting information system in organization. This paper aims to explain the theoretical framework about the relationship between organizational commitment, IT infrastructure and accounting information system's quality. The literature review supported that the organizational commitment and IT infrastructure affected the accounting information system's quality.

**Keywords:** Organizational Commitment, IT Infrastructure, Accounting Information System's Quality

#### 1. INTRODUCTION

Accounting information system (AIS) is a computer-based system designed to transform accounting data into information (Bodnar and Hopwood, 2010). An AIS can provide assistance in all phases of decision making (Romney, 2012). Satisfying the needs of managers and decision makers continues to be a major factor in developing information systems (Stair and Reynolds, 2012). Indonesian government unable to integrate the entire asset's data properly (Usman AbdhaliWatik, Vice Chief of Information Centre Commission). It will affect the country's income and also raise the country's financial leak. Other phenomenon in State Water Distribution Company, most of the Water Distribution Company in Indonesia has no integrated application for billing system, account receivable, inventory, fixed asset, and accounting. In the education institution, the need for the completion of the integrated system in higher education still continued.

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Based on these phenomenon, it could be concluded that an integrated accounting information system still needed to improve the decision making process in many institution. Integration is main characteristic of the information system quality. Accounting information system quality is a measure of the information processing system (Negash et al., 2003). Effectiveness of accounting information system also depends on the perception of decision-makers on the usefulness of information generated by the system to satisfy informational needs for operation processes, managerial reports, budgeting and control within organization (Sajady et al., 2008). System quality dimensions are accessibility, reliability, response time, flexibility and integration (Nelson et al., 2005).

The success accounting information system depends on many factors such as organizational commitment and information technology infrastructure (O'Brien and Marakas (2008). Organizational commitment is most often defined as (1) a strong desire to remain a member of a particular organization; (2) a willingness to exert high levels of effort on behalf of the organization; (3) a define belief in, and acceptance of, the values and goals of the organization (Luthans, 2008). IT infrastructure is the collection of hardware, software, processes, networks, and users (Turban and Volonino, 2011). This research aims to explain about the impact of organizational commitment, IT infrastructure on the AIS's quality based on the theoretical view. The quality of AIS primarily influenced by organizational commitment and IT infrastructure.

#### 2. LITERATURE REVIEW

## 2.1 Organizational Commitment

Organizational commitment is most often defined as (1) a strong desire to remain a member of a particular organization; (2) a willingness to exert high levels of effort on behalf of the organization; (3) a define belief in, and acceptance of, the values and goals of the organization (Luthans, 2008). Another definition about organizational commitment is the employee's emotional attachment to, identification with, and involvement in a particular organization (McShane and Glinow, 2010). Robbins (2001) defines organizational commitment as a state in which an employee identifies with a particular organization and its goals, and wishes to maintain membership in the organization. Greenberg (2011) defines organizational commitment as the extent to which an individual identifies and is involved with his or her organization and/or is unwilling to leave it.

Based on the explanation above, organizational commitment could be define as the employee's attitude and belief to be involved and loyal to their organization in achieving the goals. Luthans (2008); Greenberg (2011) and Greenberg & Baron

(1995) explained about the dimension of the organizational commitment, which are affective commitment, continuance commitment, normative commitment. Ivancevich et al., (2011) and Gibson et al., (2006) explained that organizational commitment involves three attitudes, which are sense of identification with the organizational goals, a feeling of involvement in organizational duties, a feeling of loyalty to the organization.

## 2.2 Information Technology (IT) Infrastructure

According to Turban and Volonino (2011), IT Infrastructure is the collection of hardware, software, processes, networks, and users. Laudon and Laudon (2012) define IT Infrastructure as a set of firm wide services budgeted by management and comprising both human and technical capabilities. Pearlson and Saunders (2010) explained that IT Infrastructure is consists of hardware, software, network and data. According to Turban and Volonino (2011), IT infrastructure is determined by five major components: (1) hardware, (2) software, (3) networks and communication facilities, including the internet and intranets, (4) databases and data workers, and (5) information management personnel. Haag et al. (2005) mention that an IT infrastructure includes the hardware, software and telecommunications equipment that, when combined, provide the underlying foundation to support the organization's goals. Laudon and Laudon (2012) explained that IT infrastructure consists of a set of physical devices and software applications that are required to operate the entire enterprise. But IT infrastructure is also a set of firm wide services budgeted by management and comprising both human and technical capabilities.

# 2.3 AIS's Quality

An Accounting Information Systems (AIS) is a computer-based system designed to transform accounting data into information (Bodnar and Hopwood, 2010). AIS process financial transaction and non-financial transaction that directly affect the processing of financial transaction (Hall, 2008). AzharSusanto (2013) defined n AIS as the collection (integration) of subsystems or components, both physical and non-physical that related harmonically to process financial data into financial information. According to Negash (2003), system quality is a measure of the information processing system. Gorla et al (2010), explained that system quality represents the quality of the information system processing itself, which includes software and data components, and it is a measure of the extent to which the system is technically sound. Petter and McLean (2009), state that system quality is performance of the IS in terms of reliability, convenience, ease of use, functionality, and other system metrics. Petter et al (2008) explained that system quality is the desirable characteristics of an information system.

## 2.4 The Impact of Organizational Commitment on AIS's Quality

Luthans (2008) explained that there is positive relationship between organizational commitment and desirable outcomes such as high performance, low turnover and low absenteeism. Koskosas et al. (2011) found that organizational commitment relate positively to the enactment of information security behaviors such as following new security policies and new technologies that are in effect of the organizations' business objectives. Rachman (2014) found that organization commitment have positive and significantly affect the performance. Karanja et al. (2014) found that there was a strong relationship between organizational commitment and IFMIS (Integrated Financial Management Information System) implementation in government ministries in Kenya.

## 2.5 The Impact of IT Infrastructure on AIS's Quality

O'Brien and Marakas (2008) explained that the internet, intranet, extranet, and other networks, computer system, system software and integrated enterprise application software provide a computing and communication infrastructure, or platform that supports the strategic use of information technology. Haag et al (2005) stated that a good IT infrastructure supplying all your organization's business and information needs. Turban and Volonino (2011) mentioned that the design of the IT infrastructure allows and limits the ability to store, protect, and manage data so that it can be made accessible, searchable, shareable, and, actionable. Bagranoff et al. (2004) explained that information technology infrastructure will become even more important to accountants as AISs continue to incorporate technological advances in their designs, and also as this technology becomes more important to their daily professional and personal tasks.

Chung et al. (2003) found that a structural model provide evidence that connectivity, modularity, and IT personnel (among other considerations that we discuss in the paper) make significant, positive impacts on strategic alignment and that all four components result in significant, positive impacts on the applications implementation. The study reinforces the importance of IT infrastructure flexibility to organizations as one source for sustainable competitive advantage. Ghalandari (2012) found that facilitating conditions (IT Infrastructure) had a positive and significant effect on user's behavior and intention to use e-banking services.

Mursalin (2012) found that the adoption and usage of IS by the Bangladeshi SMEs are strongly influenced by performance efficiency, effort efficiency and facilitating condition (IT Infrastructure). Jayaram (2000) found that the three dimensions of ISI (Information System Infrastructure) – design-manufacturing integration (DMI), manufacturing technology (MT), and information technology (IT) – directly influenced at least one dimension of time-based performance.

Based on the theoretical view above, it can be simplified in a model below:

Organizational
Commitment

AIS' Quality

IT Infrastructure

Figure 1: Research Model

## 2.6 Methodology

- 2.6.1 Sample Size
- 2.6.2 Variables and measurement of variables
- 2.6.3 Reliability Analysisi
- 2.6.4 Statistical Analysis and Result

### 3. DISCUSSION AND CONCLUSION

Organizational commitment and IT Infrastructure predicted to be the main factors that influenced the AIS's quality. Table 1 summarized these relationship based on the theoretical review.

Table 1 Summary of Empirical Studies

Relationship	Empirical Studies	Conclusion
Organizational Commitment and AIS Quality	Koskosas (2011)	Supported
	Rahman (2014)	
	Karanja (2014)	
IT Infrasructure and AIS Quality	Jayaram (2000)	Supported
	Chung (2003)	
	Mursalin (2012)	
	Ghalandari (2012)	

#### 4. CONCLUSION

According to the earlier studies, it could be concluded that organizational commitment and IT infrastructure impact the quality of accounting information system (AIS). Koskosas (2011), Rahman (2014), Karanja (2014) supported that organizational commitment affect the AIS quality. Chung (2003), Ghalandari (2012), Mursalin (2012) and Jayaram (2000) reported that IT infrastructure impact the AIS quality.

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#### References

- Bagranoff, Nancy A; Simkin, Mark G.; Norman, Carolyn S. 2004. *Core Concepts of Accounting Information Systems*. Eleventh Edition. Prentice Hall
- Chung Sock H,.; Rainer, R. K. Jr.; and Lewis, Bruce R.2003. *The Impact of Information Technology Infrastructure Flexibility on Strategic Alignment and Application Implementation*. Communications of the Association for Information Systems: Vol. 11, Article 11
- Fred Luthans. 2008. Organizational Behavior. Eleventh Edition. McGraw-Hill, New York
- Ghalandari, Kamal. 2012. IT Infrastructure and AIS. Middle-East Journal of Scientific Research (6): 801807, 2012.
- Greenberg, Jerald. Behavior in Organizations. Tenth Edition. McGraw-Hill, New York Haag,
- Stephen; Cummings, Maeve; McCubbrey, Donald J. 2005. *Management Information Systems for the Information Age*. McGraw-Hill, New York
- http://www.bisnis.com/articles/data-aset-negara-belum-terintegrasi-baik. accessed 25 Juni 2012
- http://kampus.okezone. Accessed 29 Maret 2014
- H. Sajady, PH.D.; M.Dastgir, PH.H.; H. Hashem Nejad. 2008. Evaluation of the Effectiveness of Accounting Information Systems. International Journal of Information Science and Technology.
- Ivancevich, John M.; Konopaske, Robert; Matteson, Michael T. 2011. *Organizational Behavior and Management*. Ninth Edition. McGraw-Hill, New York

- James L. Gibson; John M. Ivancevich; James H. Donnelly, Jr; Robert Konopaske. 2006. *Organizations: Behavior Structure Processes*. Twelfth Edition. McGraw-Hill, New York
- Jerald Greenberg; Robert A. Baron. 1995. *Behavior in Organization: Understanding and Managing The Human Side of Work*. Fifth Edition. Prentice Hall International Editions
- Karanja, John Gakuu; Ng'ang'a, Eva Nyambura. 2014. Factors Influencing Implementation of Intergrated Financial Management Information System in Kenya Government Ministries. Research Journal of Finance and Accounting. Vol.5, No.7, 2014
- Koskosas, Ioannis; Kakoulidis, Konstantinos; Siomos, Christos. 2011. *Information Security: Corporate Culture and Organizational Commitment*. International Journal of Humanities and Social Science Vol. 1 No. 3; March 2011
- Laudon, Kenneth C.; Laudon, Jane P. 2012. *Management Information System: Managing The Digital Firm*. Twelfth Edition.. McGraw-Hill, New York
- McShane Steven L.; Glinow, Mary Ann Von. 2010. Organizational Behavior: Emerging Knowledge and Practice for the Real World. Fifth Edition. McGraw-Hill, New York
- Mursalin, Md. Jabir Al. 2012. BRAC University Journal, Vol. IX, No.1&2, 2012, pp.15-24
- Negash, Solomon; Ryan, Terry; Igbaria, Magid. 2003. *Quality and Effectiveness in Web-based Customer Support Systems*. Information and Management 40, 757-768
- Narasimhah Gorla; Toni M. Somers; Betty Wong. 2010. Organizational impact of system quality, information quality, and service quality. Journal of Strategic Information Systems 19 (207–228)
- O'Brien, James A.; Marakas, George M. 2008. *Management Information System*. Eight Edition. Prentice Hall Pearlson
- Keri E.; Saunders, Carol S. 2010. Managing and Using Information Systems: A Strategic Approach. McGraw-Hill, New York
- Rachman, Andry Arifian. 2014. The Effect of Organization Commitment and Procedural Fairness on Participative Budgeting and Its Implication to Performance Moderating by Management Accounting Information (A Survey on Province Local Government Unit Agencies of West Java). Review of Integrative Business and Economics Research. Vol 3 (1).
- Ron Weber. 1999. *Information Systems Control and Audit*. McGraw-Hill, New York Stacie Petter; Ephraim R. McLean. 2009. A meta-analytic assessment of the
- DeLone and McLean. IS success model: An Examination of IS Success at the Individual Level. Information and Management 46 (159 166)
- Stacie Petter; William DeLone; Ephraim McLean. 2008. Measuring Information Systems Success: Models, Dimensions, Measures, and Interrelationships. *European Journal of Information System* 17 (236 263)
- Stephen P Robbins. 2001. Organizational Behavior. 9th Edition. San Diego State University
- Turban, Efraim; Volonino, Linda. 2011. *Information Technology for Management Improving Strategic and Operational Performance*. Prentice Hall.

- Wixom, Barbara H; Nelson, R. Ryan; Todd, Peter A. 2005. Antecedents of Information and System Quality: An Empirical Examination Within the Context of Data Warehousing.
- Jayaram, Jayanth; Vickery, Shawnee K; Droge, Cornelia. 2000. *The Effects of Information System Infrastructure and Process Improvements on Supply-Chain Time Performance*. International Journal of Physical Distribution & Logistics Management, Vol. 30 Iss: 3/4, pp.314 330