

The Accounting Information Quality And The Accounting Information System Quality Through The Organizational Structure : A Survey Of The Baitulmal Wattamwil (BMT) In West Java Indonesia

Sri Dewi Anggadini

¹,*Doctoral Student Accounting Department, Faculty of Economics and Business, Padjadjaran University Bandung, West Java, Indonesia*

ABSTRACT : *The purpose of the study is to measure the influences of accounting information system quality on the accounting information quality through observing the organizational structure. The study uses descriptive and verificative analysis method and involves forty seven (47) Baitulmal Wattamwil (BMT) in West Java Indonesia, those are applied accounting information system. The result of the study shows that the organizational structure have significant influence on the accounting information system quality. Besides, the accounting information system quality has an impact on the accounting information quality as well.*

KEYWORDS : *organizational structure, accounting information system quality, accounting information quality.*

I. INTRODUCTION

An organization takes into account that providing qualified information is the key to achieve competitive achievement (Suri, 2005) in market competition (Mc. Leod, 2007:34), leverage is very helpful for the organization to make a fast and precise decision, competed with its competitors (Laudon and Laudon, 2012:14). Accounting information quality allows information users, in this case organizations, in making valuable decisions, called usefulness decisions (Shipper and Vincent, 2003: 98). Further, Laudon and Laudon (2012:48) states if the information in the organization has good quality, the organization will run well. Otherwise low quality of information is a threat to the survival of the organization. Therefore information quality is crucial for the sustainability of an organization (Laudon and Laudon, 2012:50). Discussing on criteria of accounting information quality, McLeod (2007: 43) determines that the accounting information quality is the information considered to be accurate, timely, relevant, and complete. Accounting information quality is generated by the quality of accounting information system (Laudon and Laudon, 2012: 7). No accounting information quality without quality of accounting information system (Sacer et al., 2006:62). Accounting information system is a tool used by management in organizations to give added value that results a competitive advantage (Stair and Reynolds, 2010:6).

The issues arising on phenomenon on accounting information quality are, the less-optimum condition for quality of information technology (Agus Martowardojo, 2010), such a badly-documented report in BUMN (*government's incubator business*) requiring management of information system to access data (Dahlan Iskan, 2012) and some problems in making an accountable and transparent financial management (Hadi Poernomo, 2012), the unwell-programmed recovery of law and national accounting system leads public sectors and business to the insignificant progression of the development of report accountability and transparency (Anwar Nasution, 2007). Unfortunately, the condition is also occurred in Baitulmal Wattamwil (BMT). The prior observation shows that the ineffective management of information system leads to the problems arisen because of information system. It is assumed that unqualified accounting system may cause unqualified accounting information system (Sacer et al., 2006: 62). Sacer et al. (2006: 61) and Zimerman et al. (1995) argue that accounting information system produces accounting information. Accounting information system is a sequence or integration of sub systems or units both physically and non-physically which are interrelated and correlated congruously to manage data transactions from financial issue to financial information (Azhar Susanto, 2008:72). In line with Sacer, O'Brien (2008: 10) argues that accounting information system consists of brainware, information technology (including hardware, software and communication network) and database which collect, manipulate, and distribute information within organization.

The information system should cover the knowledge of the way people work and of social practice involved in the system (Indeje and Zheng, 2010: 4). One of main factors that has to be considered in that point is organizational structure (Laudon and Laudon, 2012: 109). In this sense, information system involves an important component, that is a man (Claver et al., 2007), and Fontaine (2007) argues that organizational structure is the most crucial components of all business strategy, it is of the essence that an organizing is resources, specifically human resources. In that case, it is clear that information system is a part related to organizational structure ; information system and organization are interrelated and inter-influenced (Laudon and Laudon, 2012: 19). Arguing to the issue, the focus of the study is explicitly formulated as the concept that the accounting information quality is believed to be influenced by the accounting information system quality influenced by the organizational structure. Adopted from Ang et al. (2001), the study also argues the influence of information technology usage as organizational structure, organizational size, managerial IT knowledge, top management supports, financial resources, goal alignment, and budgeting method.

II. REVIEW OF LITERATUR

2.1 Accounting Information Quality

Information quality is multidimensional. This means that organization must use multiple measures to evaluate the quality of their information. Schiper and Vincent (2003: 99) explain that accounting information quality may be defined as a complex concept covering relevancy of accounting information value, accounting conservatism, and management profit. McLeod (2007:86) explain that information should be available for problem solving before crisis situations develop or opportunities are lost. The user should be to obtain information that describes what is happening now, in addition to what happened in the past. Information that arrives the decision is made has no value. The dimension and indicators of information quality used in this study are adopted from theories argued by Xu, et al. (2003: 461), Mc. Leod (2007: 35) and Romney and Steinbart (2012:6). The dimension and indicators are illustrated by **accurate** (ideally, all information should be accurate, however features that contribute to system accuracy add to the of an information syste), **timeline** (information should be available for decision making before crisis situation develop or oppurtunities are lost), **relevant** (information has relevancy when it pertains to the problem at hand. The user should be able to select the data that are needed without wading trough a volume of unrelated facts), and **complete** (users should be able to obtain information that presents a complete picture of a particular problem or solution. However, systems should not drown users in a sea of information) (Hilton, 2000:551; Mc. Leod, 2007:35 ; serta Romney, et al, 2012:6 ; Kieso, et al, 2012:44-47 ; O'Brien, et al, 2008:364 ; Eppler, 2003: 68).

2.2.Accounting Information System Quality

An accounting information system is a system that collects records, stores, and processes data to produce information for decision makers (Romney et al, 2012: 6). Adding to previous statement, Azhar Susanto (2008: 72) describes accounting information system, basically, is integration of some transactional management system. Thus, accounting information system may be defined as a group or integration of sub systems / components both physical and non-physical which are interrelated and interrelationship congruously to operate data transactions related to financial issue into financial information. Furhthermore, O'Brien (2008), Romney and Steinbart (2012), Azhar Susanto (2008), state that the accounting information system has components consisting of hardware, software, brainware, procedures, database, and network communication technology. According to Stair and Reynolds (2010:57), an accounting information system quality is usually **flexible, efficient, accessible, and timely**. The term "quality" can mean success (DeLone and McLean, 1992 & 2003; Seddon, 1997; Fred Davis, 1989), or effectiveness (Gelinias, 2012), or user satisfaction (Stair & Reynolds, 2010), and / or include the term quality (Sacer et al, 2006:62) itself. DeLone and McLean's model is one of the information system success models. These authors aimed to synthesize the previous research on information system success and present a more coherent basis for future research (DeLone and McLean, 2003). In their model, DeLone and McLean (1992) proposed that the success of information systems is determined by the information system quality (the technical **quality of the system**) and the output quality of the information system (**the quality of information** produced). These dimensions influence the use level and user response to the information system (**user satisfaction**). As a result, the user attitude (**individual impact**) and organizational performance (**organizational impact**) are influenced (Azhar Susanto, 2008:374 ; Sacer *et al*, 2006:6 ; DeLone, *et al*, 2003 ; Stacie Petter, 2008 ; Ralph, *et al*, 2010:57 ; Laudon, *et al*, 2012:548 ; Todd, 2005:85)

2.3.Organizational Structure

Organizational structure is the formal system of task and authority relationships that control how people coordinate their actions and use resources to achieve organizational goals (Jones Gareth, 2010:29). Organizational structure is formally dictated on how jobs and tasks are distributed and coordinated between individuals and groups within the company. One way of getting a feel for an organizational structure is by

looking at an organizational chart. An organizational chart is a drawing that represents every job in the organization and the formal reporting relationships between those jobs. It helps organizational members and outsiders understand and comprehend how work is structured within the company (Colquitt et al, 2011: 257). The dimension and indicator of organizational structure used in the study are: **work specialization** which is dividing work activities into separate job tasks (Robbins and Coulter, 2009:201 ; Colquitt et al., 2011:528; Robbins and Judge, 2011:214; Schermerhorn et al., 2005:384; Gibson et al., 2006); **span of control** is the number of employees a manager can efficiently and effectively manage (Robbins and Coulter, 2009:203 ; Colquitt et al., 2011:528; Schermerhorn et al., 2005:386; Robbins and Judge, 2011:214; Gibson et al., 2006); **chain of command** is the line of authority extending from upper organizational levels to lower levels, which clarifies who reports to whom (Robbins and Coulter, 2009:203 ; Colquitt et al., 2011:528; Robbins and Judge, 2011:214); **formalization** refers to how standardized an organization's jobs are and the extent to which employee behaviour is guided by rules and procedures (Robbins and Coulter, 2009:205 ; Colquitt et al., 2011:528; Robbins and Judge, 2011:214; Schermerhorn et al., 2005:390); **delegation** (centralization and decentralization), centralization is the degree to which decisions making takes place at upper levels of the organization, on the other hand, the more that lower level employees provide input or actually make decisions, the more decentralization there is. (Robbins and Coulter, 2009:204 ; Colquitt et al., 2011:528; Robbins and Judge, 2011:214; Gibson et al., 2006; Schermerhorn et al., 2005:392).

III. THEORETICAL FRAMEWORK

3.1 Organizational Structure and Accounting Information System Quality

Accounting information system is influenced by organizational structure. Scott (2001:6) stated the organization's structure is effect on information system. Hierarchical organizational structure that contain a basic framework information system was built, because the system is built to circulate information in accordance with the information in a hierarchical organizational structure. The greater the organizational structure of the layer hierarchy will increasingly complex information systems are built, in addition to the span of control within the organizational structure also affects information system. Laudon, et al (2012:23) explain that other features of organizations include their business processes, organization culture, organizational politics, surrounding environments, organizational structures, goals, constituencies and leadership style. All of these features affect the kind of information systems used by organizations. This is supported by the result of study Stacie, et al (2008); McLeod, et al (2007); Yarmohammadzadeh, et al (2011). Following the results of their studies, the organizational structure significantly contributes to the effectiveness of accounting information system.

3.3 Accounting Information System Quality and Accounting Information Quality

The accounting information quality is influenced by the accounting information system quality. Wongsim, et al (2011) stated that information quality dimensions have a positive relationship with accounting information system adoption processes. Furthermore, information quality dimensions play a vital role in the process of AIS adoption. Next, Sacer, et al (2006) explain that the connection between an AIS and business reporting on the basis of characteristic of quality information. The same with Onaolapo (2012) explain that benefits of accounting information system can be evaluated by its impacts on improvement of decision making process, quality of accounting information, performance evaluation, internal controls and facilitating company's transactions. The purpose of an accounting information system is to produce financial statements designated for both external and internal users (Scott, 2001). This is supported by the result of the study showing that accounting information system enhances the truth of financial statements (Salehi et al., 2010). Thus, it is concluded that there is a relationship between accounting information system to report on the basis of information quality characteristics (Sacer et al., 2006). Nicolaou (2000) states, that the effectiveness of the accounting information system is measured by the satisfaction of the decision makers on the information quality produced by the accounting information system quality.

Study Models and Hypothesis

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

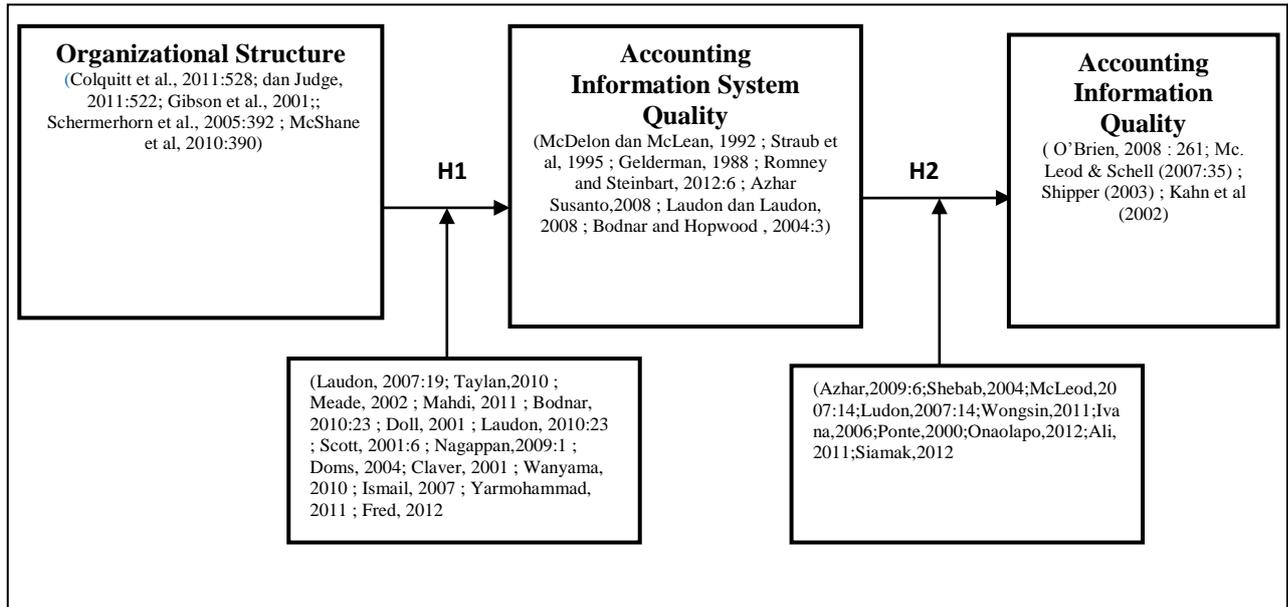


Figure 1 : Theoretical framework of the study

To sum up, the study is aimed to determine the causal relationship between variables through tested hypothesis.

Hypothesis 1 : The accounting information system quality is significantly influenced by organizational structure.

Hypothesis 2 : The accounting information quality is significantly influenced by accounting information system quality.

IV. METHODOLOGY

The research objects are the organizational structure, the accounting information quality and the accounting information system quality. Research methodology used in this study is method of survey with questionnaires as a tool. The units of analysis of the study are forty seven (47) Baitulmal Wattamwil (BMT) in West Java Indonesia. The study focuses on applying accounting information system quality and survey conducted on the units of analysis. Numbers of questionnaires are distributed to each company, one copy for one company. Respondents of this study are the leaders of management companies of the Baitulmal Wattamwil (BMT). The questionnaires are manipulated based on indicators using a Likert's summated rating. The questionnaires use closed questions format serving answered choices for variables that have clear indicators measured. Data analysis conducted in this study is descriptive and verificative. The answers from the respondents were treated as data and processed by statistical measures. The sincerity of the respondents' answers is crucial; therefore, the data were tested through a test of validity and reliability. Then, in order to analyze the data statistically, the ordinal data must be transformed into interval data using the successive interval method. The data will be analyzed is by using path analysis with consideration of the pattern of relationships between variables that are correlative, causality and recursive. Each hypothesis to be tested by a statistical t test : H_0 is rejected if $t_{\text{account}} > t_{\text{critical}}$, $\alpha = 0.05$ level.

V. CONCLUSION

The model developed in this study may explain the influences of the organizational structure on the accounting information system quality and the accounting information quality. The results of this study later, is specifically will show that the organizational structure implemented in Baitulmal Wattamwil (BMT) have significant effects on the accounting information system quality. Finally, the accounting information system quality gives influence to the accounting information quality. It means that, to reach accounting information quality, Baitulmal Wattamwil (BMT) must be supported by qualified accounting information system. Accordingly, the financial statements of the Baitulmal Wattamwil (BMT) can be provided in accordance with high quality standards.

REFERENCES

- [1] Agus Martowardojo. (2010). Agus Marto Beberapa Kelemahan di Ditjen Pajak. www.buletinfo.com.
- [2] Ali Alzoubi. (2011). *The Effectiveness of The Accounting Information Systems Under The Enterprise Resources Planning (ERP)*. Research Journal of Finance and Accounting. Vo. 2. No. 11. Pp. 10-19.
- [3] Ang, C.L Davies, M. A., Finlay, P.N. (2001). An Empirical Model of IT Usage in The Malaysian Public Sector. *Journal of Strategic Information Systems*, 10, 159-174.
- [4] Anwar Nasution. (2007). BPK : Krisis Keuangan Global Harus Jadi Pelajaran. www.tempo.co.
- [5] Azhar Susanto. (2008). *Sistem Informasi Akuntansi, Struktur-Pengendalian-Resiko-Pengembangan*. Bandung : Lingga Jaya.
- [6] Bodnar, George H, Hopwood William S. (2010). *Accounting Information System*. Prentice Hall, Inc New Jersey.
- [7] Colquit, Jason A., Lepine, Jeffery A., Wesson, Michael J. (2011). *Organizational behavior: Improving Performance and Commitment in the Workplace*. New York: McGraw Hill/Irwin. International Edition.
- [8] Dahlan Iskan. (2012). Dahlan : Dokumen BUMN Banyak Yang Bermasalah. <http://antaranews.com>.
- [9] DeLone, W. H and McLean, E. R. (1992). *Information System Success : The Quest of The Dependent Variable*. *Information Systems Research*. Vol. 3. Pp. 60-95.
- [10] DeLone, W. H and McLean, E. R. (2003). *The DeLone and McLean Model of Information System Success : A Ten Years Update*. *Journal of Management Information System*. 19(4). Pp. 3-30.
- [11] Doll, William and Tardiff, David G. (2001). *The Collaborative Use of Information Technology : End User Participation and System Success*. *Information Resources Management Journals*. ABI/INFORM Global.
- [12] Doms, M. E. Jarmin R. S and Klimerk, S. D. (2004). *Information Technology Investment and Firm Performance in U.S Retail Trade*. *Economics of Innovation and New Technology*. 13. 7. 596-613.
- [13] Eppler, M. J. (2003). *Managing Information Quality: Increasing the Value of Information in Knowledge-Intensive Products and Processes*. Heidelberg/New York: Springer.
- [14] Fontaine, Craig W. (2007). *Organizational Structure: A Critical Factor for Organizational effectiveness and Employee Satisfaction*. First Annual Conference on Organizational Effectiveness, Chicago, IL. Northeastern University.
- [15] Fred C. Lunenburg. (2012). *Organizational Structure : Mintberg's Framework*. *International Journal of Scholarly Academic Intellectual Diversity*.
- [16] Fred Davis. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13, September, Pp. 319-340
- [17] Claver, E., Llopis, J., Gonzalez, MR. (2001). *The Performance of Information Systems through Organizational Culture*. www.emeraldinsight.com.
- [18] Gibson, J. L., et al. (2006). *Organizations Behavior, Structure, Processes* (13th ed). New York: McGraw-Hill.
- [19] Gelinas U, A. Oram & W. Wriggins. (1990). *Accounting Information Systems*. Boston: PwsKent Publishing Company.
- [20] Gelinas, Ulric J, Dull, Richard B, Wheeler, Patrick R. (2012). *Accounting Information System*. 9 Th Edition. South Western Cengage Learning. USA.
- [21] Gelderman, M. (1998). *The Relation Between User Satisfaction, Usage of Information Systems and Performance*. *Information and Management*. 34. Pp. 11-18.
- [22] Gibson, J. L., Ivancevic, J. M., Donnelly, J. H., & Konopaske, Robert. (2006). *Organizations Behavior, Structure, Processes* (13th ed). New York: McGraw-Hill.
- [23] Hadi Poernomo. (2012). Sumatera Utara : BPK Sepakat Bangun Sistem E-Audit. <http://indonesia.go.id>.
- [24] Indeje, Wanyama G., dan Zheng, Qin. (2010). *Organizational Culture and Information Systems Implementation: A Structuration Theory Perspective*. Working Papers on Information Systems ISSN 1535-6078 10(27). <http://sprouts.aisnet.org/10-27>
- [25] Ismail, Adel Al-Alawi, Nayla Yousif Al-Marzookqi, Yasmeen Fraidoon Mohammed. (2007). *Organizational Culture and Knowledge Sharing : Critical Success Factors*. *Journal of Knowledge Management*.
- [26] Ivana Mamic Sacer, Katarina Zager, Boris Tusek. (2006). *Accounting Information System's Quality as The Ground for Quality Business Reporting*. IADIS International Conference-Commerce 2006
- [27] Jones, Gareth. (2010). *Organizational Theory, Design and Change*. Sixth Edition. Pearson Education. Inc. Upper Saddle River. New Jersey.
- [28] Kahn, B. K., Strong, D. M., & Wang, R. Y. (2002). Information Quality Benchmarks: Product and Service Performance. *Communications of the ACM*, 45(4ve), 185.
- [29] Kieso, Donald E., et al. (2012). *Intermediate Accounting*. 14th Edition. UK: John Willey and Sons, Inc.
- [30] Laudon, Kenneth C., et al.. (2012). *Management Information Systems : Managing The Digital Firm*. 12th Edition. NJ : Prentice Hall.
- [31] Mahdi Salehi, Vahab Rostami and Abdolkarim Mogadam. (2010). *Usefulness of Accounting Information System in Emerging Economy : Empirical Evidence of Iran*. *International Journal of Economics and Finance* Vo. 2, No. 2.
- [32] Mahdi, Salehi, and Abdipour, Abdoreza. (2011). *A Study of The Barriers of Implementation of Accounting Information System: Case of Listed Companies in Tehran Stock Exchange*.
- [33] Mc. Leod, Raymond and Schell, George P. (2007). *Management Information System*. Tenth Edition. Upper Saddle River New Jersey 07458 : Pearson/Prentice Hall.
- [34] McShane and Von Glinov. (2010). *Organizational Behaviour*. Fifth Edition. McGraw-Hill International Edition.
- [35] Meade, L. and A. Presley. (2002). *R and D Project Selection Using The Analytic Network Process*. *IEEE Transactions on Engineering Management*. 49. 1-8.
- [36] Nagappan et al. (2009). *The Influence of Organizational Structure on Software Quality : an Empirical Case Study* leeeexplore.ieee.org/iel5/481410.
- [37] Nicolaou Andreas I. (2000). A Contingency Model of Perceived Effectiveness in Accounting Information Systems: Organizational Coordination and Control Effects. *International Journal of Accounting Information Systems*, Vol:1, Issue 2, September 200, p 91-105.
- [38] O'Brien, James A., et al. (2008). *Management Information System*. Eight Edition. NY: McGraw-Hill.
- [39] Onaolapo A.A and Odetayo T.A. (2012). *Effect of Accounting Information System on Organisational Effectiveness : A Case Study of Selected Construction Companies in Ibadan Nigeria*. *American Journal of Business and Management*. Vol. 1. No. 4. 2012. 183-189.
- [40] Ramlah Hussein, Norshidah Mohamed, Nor Shahrizah Abdul Karim, Abdul Rahman Ahlan. (2009). The Influences Organizational Factors on Information System Success in E-Government Agencies in Malaysia. *The Electronic Journal of Information System in Developing Countries*. <http://www.ejisdc.org>.
- [41] Robbins, Stephen P., et al. (2009). *Management*. 9th Edition. Pearson Education. Prentice Hall.

- [42] Robbins, Stephen, *et al.* (2011). *Organizational Behaviour*. 14th Edition. Pearson Education. Prentice Hall.
- [43] Romney, Marshall B., dan Steinbart, Paul J. (2012). *Accounting Information Systems*. Global Edition. Twelfth Edition. England: Pearson Education Limited
- [44] Sacer, Ivana M., Zager K., and Tusek B. (2006). Accounting Information System's Quality as The Ground For Quality Business Reporting. *IADIS International Conference e-commerce*, ISBN :972-8924-23-2.
- [45] Schermerhorn, John R., *et al.* (2005). *Organizational Behavior*. John Wiley & Sons, Inc.
- [46] Scott, George M. (2001). *Principles of Management Information System*. New York : McGraw-Hill, Inc
- [47] Seddon, P.B. (1997). *Information System Research*, Vol. 8 No. 3, Pp. 240-253 Shipper, K and Vincent, L. (2003). Earning Quality. *Accounting Horizons*, Supplement, 97-110. Stacie Petter, William DeLone, Ephraim McLean. (2008). Measuring information system success : models, dimension, measures, and Interrelationships. *European Journal of Information System*.
- [48] Siamak Nejadhosseini Soudani. (2012). *The Usefulness of An Accounting Information System for Effective Organizational Performance*. *International Journal of Economics and Finance*. Vol. 4. No. 5. May 2012. Pp. 136-143.
- [49] Stair M, and George W. Reynolds. (2010). *Principles of Information Systems*, Course Technology, 9th ed., Editions. NY: McGraw-Hill.
- [50] Straub et al. (1995). *Measuring System Usage : Implications for IS Theory Testing*. *Management Science*. 41 (8). Pp. 1328-1342.
- [51] Suri, Gunmala. (2005). *Organizational Culture in ICT Implementation and Knowledge Management in Spanish and Indian Universities: A Conceptual Model*. Computer Society of India . www.csi-sigegof.org/3/1_280_3.pdf
- [52] Taylan, Osman, PhD. (2010). *The Effect of Information Systems on Enterprise Transformation and Organizational Behavior*. *Canadian Journal on Data, Information and Knowledge Engineering* Vol. 1, No. 1
- [53] Todd. (2005). A Theoretical Integration of User Satisfaction and Technology Acceptance. *Information Systems Research*. Vol.16, No.1, March 2005, pp.85-102. ISSN 1047-7047
- [54] Wanyama G. Indeje and Qin Zheng. (2010). *Organization Culture and Information Systems Implementation : A Structuration Theory Perspective*. *Sprouts : Working Papers on Information Systems*.
- [55] Wongsim, M., & Gao, J. (2011). *Exploring Information Quality in Accounting Information System Adoption*. IBIMA Publishing, 2011(2011), 1-12.
- [56] Xu, Hongjiang. Nord G.D. and Lin, B (2003). *Key Issues Accounting Information Quality Management : Australian Case Studies*. *Industrial Management and Data System*.
- [57] Yarmohammad Zahed. (2011). *The Analysis of The Relationship Between Organizational Structure and Information Technology (IT) : And The Barriers to Its Establishment at The University of Isfahan from The Faculty Member's Viewpoints*.
- [58] Yarmohammadzadeh, Peyman, Alammeh Sayyed Mohsen, Ghalavandi Hassan, Farhang Aboulghassim, Ajdari Zaman. (2011). *The Analysis of The Relationship between Organizational Structure and Information Technology (IT) : And The Barriers to Its Establishment at The University of Isfahan from The Faculty Member's Viewpoints*. *Higher Education Studies*.
- [59] Zimmerman JL. (1995). *Accounting for Decision Making and Control*. Chicago : Irwin.