



ORGANIZATIONAL CULTURE AND ITS IMPACT ON THE QUALITY OF ACCOUNTING INFORMATION SYSTEMS

NELSI WISNA

Lecturer at the Faculty of Applied Science Telkom University – Indonesia and
Accounting Doctoral Student, Padjadjaran University – Indonesia

E-mail: nelsie@tass.telkomuniversity.ac.id

ABSTRACT

This paper examines the impact of organizational culture on the quality of accounting information systems. The conceptual model using a sample of employees of the accounting department at several colleges in Bandung. Overall, the results support the hypothesis that organizational culture affects the quality of accounting information systems. The results showed that the role of organizational culture in improving the quality of accounting information system is an important factor.

Keywords : *Culture, Organizational Culture, Information System, Accounting Information System.*

1. INTRODUCTION

Organizations today recognize the need to integrate the data associated with their functions into large, seamless data warehouses. This integration allows internal managers and possibly external parties to obtain the information needed for planning, decision making, and control, whether or not that information is for marketing, accounting, or some other functional area in the organization [1]. Information is data presented in a form that is useful in a decision making activity. The information has value to the decision maker because it reduces uncertainty and increases knowledge about a particular area of concern [2]. Accurate information is free of errors. Information is timely when it is available to decision makers when it is needed. Information is relevant when it is useful and appropriate for the types of work and decisions that require it [3].

Information systems provide information in the form of reports and displays to managers and many business professionals [4]. All information systems use people, hardware, software, data, and network resources to perform input, processing, output, storage, and control activities that transform data resources into information [4]. The information system is a set of formal procedures that determine how data is collected and processed into information and distributed to the users [5].

The low quality of accounting information systems in Indonesia, is expressed by Gamawan Fauzi, that reporting system of local government

financial implementation tends to be inefficient in terms of both time and budget [6]. Indonesia Stock Exchange on 31 July shows of the 485 companies listed 91 units that have not submitted interim financial statements ended as of June 30, 2013 [7]. The Government admitted that there are 10 ministries / institutions that have a poor quality of financial reporting [8]. Accounting information system is influenced also by factors of corporate culture (corporate / organizational culture) [9]. Organizational culture is the values, principles, traditions and everything that affects the members of the organization to work [10]. Organizational culture refers to a mutual agreement on a system that is believed by an organization and can be the difference between one organization to another organization [11].

A strong corporate culture is clearly defined, reinforces a common understanding about what is important, and has the support of management and employees. Such a culture contributes greatly to an organization's success by creating an understanding about how employees should behave. Characteristics of a strong corporate culture [15] :

1. Organizational members share clear values and beliefs about how to succeed in their business.
2. Organizational members agree on which beliefs about how to succeed are most important.
3. Different parts of the organization have similar beliefs about how to succeed.
4. The rituals of day-to-day organizational life are well organized and consistent with company goals.



Weak cultures have the opposite characteristics. In a weak corporate culture, individuals often act in ways that are inconsistent with the company's way of doing things. Characteristics of a weak corporate culture [15] :

1. Organizational members have no clear values or beliefs about how to succeed in their business.
2. Organizational members have many beliefs as to how to succeed but cannot agree on which are most important.
3. Different parts of the organization have fundamentally different beliefs about how to succeed.
4. Those who personify the culture are destructive or disruptive and don't build on any common understanding about what is important
5. The rituals of day-to-day organizational life are disorganized or working at cross-purposes.

Organization culture has a strong influence on financial information systems development and implementation. The identification and understanding of meanings, norms and power in organizations is an important consideration when developing and implementing an information system [16]. Organizational cultures and subcultures are important determinants of how people use information and information systems. By grounding information systems in the context of the organization as a larger system, it is possible to realize that numerous factors are important and should be taken into account when ascertaining information requirements and designing and implementing information systems [17].

REVIEW OF LITERATURE

2.1. Organizational Culture

Culture is a set of major understandings and Assumptions shared by a group, Reviews such as within an ethnic group or a country [18]. Culture is a concept includes shared values, unwritten rules and Assumptions within the organization as well as the practices that all groups share [19]. Organizational or corporate culture is the system of shared actions, values, and beliefs that develops within an organization and guides the behavior of its members [20].

Organizational culture is shared values, principles, traditions and ways of doing things that influence the way organizational members act [10]. Organizational culture Refers to a system of shared meaning held by members that distinguishes the organization from other Organizations [11]. Culture

is the set of important understandings (often unstated) that members of a community share in common Culture in an organization compares to personality in a person. An organization's culture is transmitted in many ways, including long-standing and often unwritten rules : shared standards regarding, what is important, prejudices, standards for social etiquette and demeanor, established customs for relating to peers, subordinates, and superiors, and other traditions that clarify to employees what is and is not appropriate behavior [15].

Organizational culture is the set of assumption, beliefs, values, and norms that are shared by an organization's members [21]. Organizational culture is a powerful unifying force that restrains political conflict and promotes common understanding, agreement on procedures, and common practices [3]. Organizational culture consists of the major understandings and assumptions for a business, corporation, or other organization [18].

Organizational culture is what the employees perceive and how this perception creates a pattern of beliefs, values and expectations [13]. Organizational culture is learned primarily through observing people and events in the organization and training [14]. Each organization has a specific culture that contains the basic assumptions, values, way of doing something that is accepted by most members of the organization [22].

In system development, organizational culture can also have a positive influence on the successful development of information systems [18]. Organizational culture and inherent in the development of an enterprise information system [3]. Information system designers, when designing information systems for an enterprise organization cannot change the norms that have become a culture in the organization of the company granted [23]. Information system designer should be able to do something that would make the system more acceptable information so that in time the culture will be one part of the information system, things to do, among others, is to involve the users of information [23].

Dimensions of organizational culture [11] :

- 1) Innovation and Risk Tasking : Degree to which employees are encouraged to be innovative and to take risks.
- 2) Attention to Detail : Degree to which employees are expected to exhibit precisions, analysis and attention to detail.

- 3) Outcome Orientation : Degree to which managers focus on results or outcomes rather than on how these outcomes are achieved.
- 4) People Orientation : Degree to which management decisions take into account the effects on people in the organization.
- 5) Team Orientation : Degree to which work is organized around teams rather than individuals.
- 6) Aggressiveness : Degree to which employees are aggressive and competitive rather than cooperative.
- 7) Stability : Degree to which organizational decisions and actions emphasize maintaining the status quo

Seven characteristic of an organization's culture [15] :

- 1) Individual autonomy : the degree of responsibility, independence, and opportunities for exercising initiative that individuals in the organization have.
- 2) Structure : the number of rules and regulations and the amount of direct supervision that is used to oversee and control employee behavior.
- 3) Support : the degree of assistance and warmth provided by managers to their subordinates.
- 4) Identification : the degree to which members identify with the organization as a whole rather than with their particular work group or field of professional expertise.
- 5) Performance-reward : the degree to which reward allocations (i.e, salary increases, promotions) in the organization are based on performance criteria.
- 6) Conflict tolerance : the degree of conflict present in relationship between peers and work group, as well as the willingness to be honest and open about differences.
- 7) Risk tolerance : the degree to which employees are encouraged to be aggressive, innovative and risk seeking.

Six dimensions of organizational culture [24] :

- 1) Opposes a concern with means to a concern with goals
- 2) Opposes a concern for getting the job done
- 3) Opposes units whose employees derive their identify largely from the organization to units in which people identify with their type of job
- 4) Opposes open to close systems
- 5) Refers to the amount of internal structuring in the organization
- 6) Deals with the popular notion of "customer orientation"

Strong organizational culture : an organization in which there is widespread agreement with

respect to the core elements of culture, making it possible for culture to exert major influences on the way people behave. Weak culture is an organization in which there is limited agreement with respect to the core elements of culture, giving culture little influence on the way people behave [25]. Organizational culture can studied by every member of the organization through: the community leaders / heroes, history or stories, slogans, symbols and ceremonies [14].

2.2. Accounting Information System

Accounting information system is basically a system. To understand what accounting information system is necessary first to understand the system, information, information systems, accounting and accounting information systems. Understanding the system according to the experts: according to Romney & Steinbart are as follows: "A system is a set of two or more interrelated components that interact to achieve a goal. Systems are almost always composed of smaller subsystems, each performing a specific function important to and supportive of the larger system of which it is a part. For example, the college of business is a system composed of various departments, each of which is a subsystem. Yet the college itself is a subsystem of the university" [9]

The system is a collection/ group of sub-systems / parts / components of any kind, either physical or non-physical are interconnected with each other and work together in harmony to achieve a certain goal [23]. A system is a set of interrelated components, with a clearly defined boundary, working together to achieve a common set of objectives" [4]

The basic components of information systems : Hardware (is a set of devices such as processor, monitor, keyboard and printer), Software (is a set of programs that instruct the hardware to process data, A database (is a collection of related files, tables, relations and so on, that stores data and the associations among them), A network (is a connecting system that permits the sharing of resources but different computers, it can be wireless), Procedures (are the set of instructions about how to combine the above components in order to process information and generate the desired output, People (are those individuals who work with the system, interface with it, or use its output [26].

Accounting information system is essentially an integration of various transaction processing



systems or accounting information system can be defined as a collection (integration) of sub-systems / of components both physical and non-physical are interrelated and work together in harmony with each other to process transaction data related to financial issues into financial informat [23]. Such as purchase accounting information systems (process data into information purchase purchase accounting) . It matching is also presented by:

- 1) Accounting information system is a system that collects, records, stores and processes the data to produce information to decision makers [9].
- 2) An accounting information system is a set of interrelated activities, documents and technologies designed to collect the data, process it and report information to a diverse group of internal and external decisions makers in Organizations [27].
- 3) Accounting information systems as a set of components that accounting collect the data, store it for future uses, and process it for the end users [1].
- 4) An accounting information system as an organizational component roomates accumulates, classifies, processes, analyzes and communicates relevant financial-oriented, decision making information to a company's external parties (Reviews such as current and potential investors, federal and state tax agencies and creditors) and internal parties (principally management) [28].

In the early 1990s, the software engineering community attempted to consolidate the many views of quality into one model that could act as a worldwide standard for measuring software quality. The result was ISO 9126, a hierarchical model with six major attributes contributing to quality (International Standardization Organization 1991). Illustrates the hierarchy :

- 1) Functionality : suitability, accuracy, interoperability, security.
- 2) Realiability : maturity, fault tolerance, recoverability
- 3) Usability : understandability, learnability, operability
- 4) Efficiency : time behavior, resource behavior.
- 5) Maintainability : analyzability, changeability, stability, testability.
- 6) Portability : adaptability, installability, conformance, replaceability.

Table 1 : Iso 9126 Quality Characteristics

Quality Characteristic	Definition
Functionality	A set of attributes that bear on the existence of a set of functions and their specified properties. The functions are those that satisfy stated or implied needs.
Realiability	A set of attributes that bear on the capability of software to maintain its performance level under stated conditions for a stated period of time.
Usability	A set of attributes that bear on the effort needed for use and on the individual assessment of such use by a stated or implied set of users.
Efficiency	A set of attributes that bear on the relationship between the software's performance and the amount of resources used under stated condition.
Maintainability	A set of attributes that bear on the effort needed to make specified modifications (which may include corrections, improvements or adaptations of software to environmental changes and changes in the requirements and functional specifications)
Portability	A set of attributes that bear on the ability of software to be transferred from one environment to another (including the organizational, hardware or software environment)

A quality information system is usually flexible, efficient, accessible, and timely [18]. The Quality attributes [29] :

- 1) Availability is a measure of the planned up time during which the system is actually available for use and fully operational.
- 2) Efficiency is a measure of how well the system utilizes processor capacity, disk space, memory or communication bandwidth.
- 3) Flexibility also known as extensibility, augmentability, extendability and expandability, flexibility measures how easy it is to add new capabilities to the product.

- 4) Integrity : which encompasses security
- 5) Interoperability : indicates how easily the system can exchange data or services with other systems.
- 6) Realiability : the probability of the software executing without failure for a specific period of time is known as reliability
- 7) Usability : also referred to as ease of use and human engineering

AIS's Success [9] :

- 1) Usefulness : Information output should help management and users make decisions
- 2) Economy : The benefits of the system should exceed the cost
- 3) Realiability : The system should process data accurately and completely
- 4) Availability : Users should be able to access the system at their convenience
- 5) Timelines : Crucial information should be produced first, and less important items as time permits
- 6) Customer servie : Courteus and efficient customer service should be provided.
- 7) Capacity : System capacity should handle periods of peak operation and future growth.
- 8) Ease of use : The system should be user-friendly
- 9) Flexibility : The system should accommodate reasonable operating or system requirements changes.
- 10) Tractability : The system should be easily understood by users and designers and facilitate problem solving and future systems development
- 11) Auditability : Auditability should be built into the system from the beginning
- 12) Security : Only authorized users should be granted access or allowed to change system data

3. Theoretical Framework : Organizational Culture and Quality of Accounting Information system

Three factors that influence the design of an AIS : development in information technology (IT), business strategy and organizational culture [9].

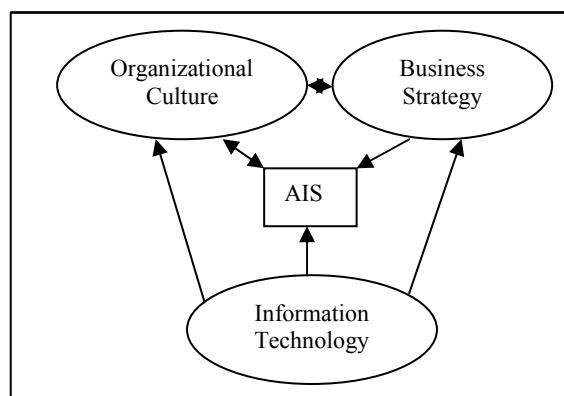


Figure 1 : Factors Influencing Design Of The AIS

The organizational culture values, principles, traditions and everything that affects members of the organization to work [10]. Organizational culture refers to a mutual agreement on a system that is believed by an organization and can be the difference between one organization to another [11]. Organizational culture is a set of values that help employees in an organization to understand which actions are deemed acceptable and unacceptable [30].

An organizational culture perspective and perception of employees to create beliefs, values and expectations [13]. Organizational culture can be explained mainly through the observation of others, events in the organization and training [14]. The linkage between organizational culture and the success of the accounting information system revealed that organizational culture has a strong influence on the development and implementation of financial information systems [16].

An important factor in the development and implementation of information systems is identifying, understanding the meaning, norms and power within the organization [16]. Implementation of information systems in the financial services sector needed strengthening organizational cultural values associated with customer orientation, flexibility, quality, and performance orientation [31]. The managers should create a culture/atmosphere that fits the characteristics of the implemented information systems [32].

4. RESEARCH MODELS AND HYPOTHESIS

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

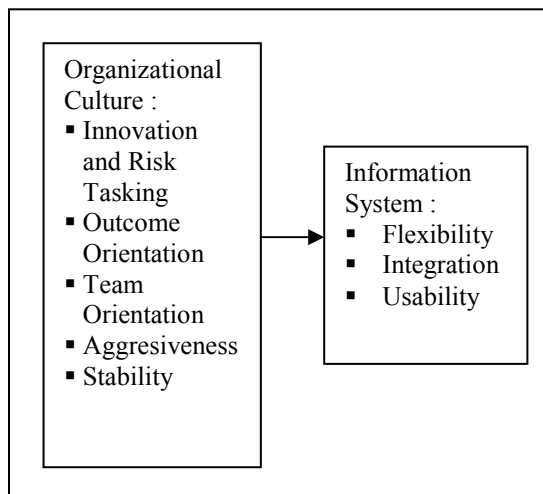


Figure 2 : Research Model

The proposed hypothesis in this study : the organizational culture influence the quality of accounting information systems

5. METHODOLOGY, FINDING AND DISCUSSION

The survey method was used in this research by using questionnaire. The unit of analysis in this study is of employees of the accounting department at several college in the city of Bandung Indonesia. 75 college are being use as a sample. The respondent of this study are accounting staff and manager.

Analysis of data using multiple regression analysis. Ordinal data is transformed into the interval scale with MSI before it is processed for the purpose of verification analysis, and testing through validity, reliability as well as the assumptions of classical test (test for normality, multicollinearity test).Based on the results of data processing, the regression equation can be formed as follows: $Y = 0,403 + 0,472 X + \epsilon$.

The regression equation obtained explained that the variables of organizational culture (X) has an influence on the quality of accounting information system that is visible from coefficient regression obtained for the variable of organizational culture (X) of 0.472, which means the higher the organizational culture will make the accounting information system will be higher. Testing this hypothesis aims to determine whether there is

influence of organizational culture on the quality of accounting information systems. The hypothesis is:

H0: $\rho_{yx} = 0$: The organizational culture does not affect the quality of accounting information systems.

H1: $\rho_{yx} \neq 0$: The organizational culture affects the quality of accounting information systems.

Variables influence of organizational culture on the quality of accounting information system known from the positive β value of 0.497 with t calculate equal to 6.485 and a significance level of 0.000. Determination of test results (acceptance / rejection of H0) can be done by comparing tcount with t table or also can be seen from the value of its significance. T-value table with $\alpha = 0.05$ and degrees of freedom $75-2-1 = 72$ for a two-sided test is 1.990.

Criteria for testing the two sides are "reject Ho if t count > t-table or t count < negative t-table". Because the value of t-test for X of 6.485 is greater than the value of the t-table = 1.990 or when viewed significance value of 0.000 is smaller than the error rate of 5% ($\alpha = 0.05$), it can be taken a decision to reject H0. Test results with a confidence level of 95% can be concluded that organizational culture affects the quality of accounting information systems. The influence of organizational culture can be seen from the Standardized Coefficients. Beta coefficient of 0.497. So the organizational culture affects the quality of accounting information systems for $0,497^2 \times 100\% = 24.70\%$.

6. CONCLUSION

Based on these results, it can be concluded that the culture of the organization, affecting the quality of accounting information systems. The quality of accounting information systems can be further improved by taking into account factors of this organization, especially the factor of organizational culture. This factor becomes important not only when the system information that is created and developed, but should still be considered when the information system is implemented.

REFERENCES

- [1] Bagranoff, N.A., Simkin, M.G., Norman, C.S. 2010. *Core concept of accounting information systems* —11th ed : John Wiley & Sons, Inc, pp. 7-8
- [2] Gelinas U. J. & Dull, R. B. 2008. *Accounting Information Systems, Seventh Edition*. Canada: Thomson South-Western, pp. 22.

- [3] Laudon, K.C. & Laudon, J.P. 2012. *Management Information System : Managing The Digital Firm*. 12th Edition. NJ: Prentice-Hall, pp. 209,85,20.
- [4] O'Brien, J. A & Marakas, G. M. 2010. *Introduction To Information Systems, Fifteenth Edition*. New York: McGraw-Hill Companies, Inc, pp. 15,31,4.
- [5] Hall, J. 2011. *Accounting Information System 7th ed*, South-Western Cengage Learning, p. 7.
- [6] Gamawan Fauzi. 2011. "Mendagri Kritik Buruknya Pelaporan Keuangan Daerah". Melalui : < www.okezone.com [09/11/11].
- [7] Umi Kulsum. 2013. "BEI: 91 Perusahaan Belum Sampaikan Laporan Keuangan". Melalui : < <http://www.republika.co.id/> > [08/12/14].
- [8] Agus Martowardoyo. 2013. Kualitas laporan keuangan 10 kementerian buruk. Melalui : < Merdeka.com>[11/02/13].
- [9] Romney M.B., & Steinbart P.J. 2009. *Accounting Information System 11th Edition*, Pearson Prentice Hall, pp. 32, 26, 28, 702, 32.
- [10] Robbins S.P & Coulter, M. 2007. *Management 9th Edition*, Pearson Education International, pp. 90.
- [11] Robbins, S.P & Judge T.A. 2011. *Organizational Behavior*, 14th Edition. Prentice Hall, pp. 520, 554.
- [12] Moorhead & Griffin, W. 1995. *Organizational Behavior, Managing People and Organizations*, Fourth Edition, Houghton Mifflin Company, pp. 440.
- [13] Ivancevich J.M & Matteson M.T. 2008. *Organizational Behavior and Management* : McGraw-Hill/Irwin, pp. 37.
- [14] Lussier, R.N. 2008. *Human Relations in Organizations, Applications and Skill Building*, 7th ed, Mc Graw-Hill, pp. 517.
- [15] Rue L.W & Byars L.L. 2007. *Management Skills and Application* 12th edition. Mc-Graw-Hill, pp. 386, 383.
- [16] Indeje, W.G & Zheng, Q. 2010. Organizational Culture and Information Systems Implementation: A Structuration Theory Perspective, *Sprouts: Working Papers on Information Systems*, 10(27). <http://sprouts.aisnet.org/10-27>, ISSN 1535-6078.
- [17] Kendall, K.E & Kendall, J.E. 2008. *System Analysis and Design* 7th Edition, Pearson Prentice Hall, USA, pp. 51.
- [18] Stair, R & Reynolds, G. 2010. *Principles of Information Systems, A Managerial Approach 9th Edition*, Course Technology, pp. 53, 57.
- [19] Chaffey, D. 2011. *E-Business & E-Commerce Management, Strategy, Implementation, and Practice*, Prentice Hall, pp. 562.
- [20] Schermerhorn, J.r, Osborn, R.N., Bien, M.U., Hunt, J.G. 2012. *Organizational Behavior* 12th ed. John Wiley & Sons, pp. 348.
- [21] Newstrom, J.W. 2002. *Organizational Behavior, human behavior at work*, 11th edition, Mc Graw-Hill, p. 91.
- [22] Azhar Susanto. 2004. *Sistem Informasi Manajemen*, Edisi 3, Lingga Jaya, Bandung, pp. 6
- [23] Azhar Susanto. 2008. *Sistem Informasi Akuntansi: Struktur Pengendalian Risiko Pengembangan*. Edisi Perdana: Lingga Jaya, pp. 60,22,72
- [24] Hofstede, G. 1998. Identifying Organizational Subcultures an Empirical Approach, *Journal of Management Studies* 35 1 Januari 1998, 0022-2380.
- [25] Greenberg, J. 2011. *Behavior in Organization* 10th Ed. Pearson education, pp. 514.
- [26] Turban, E., Leidner, D., McLean, E., and Wetherbe, J. 2008. *Information Technology for Management, Transforming Organizations in the Digital Economy*. 6th Edition, John Wiley & Sons, p. 17.
- [27] Hurt, R.L. 2008. *Accounting Information System, Basic Concepts & Current Issues*. McGraw Hill, pp. 3.
- [28] Moscovice & Stephen A. 1990. *Accounting Information Systems, Concept and Practice For Effective Decision Making*, 4th ed, John Wiley and Sons, Inc, pp.9.
- [29] Wiegers, K. 2003. *Software Requirements*, Published by Microsoft press, pp. 219.
- [30] Moorhead & Griffin, W. 1995. *Organizational Behavior, Managing People and Organizations*, Fourth Edition, Houghton Mifflin Company, pp. 440.
- [31] Doherty, N. F., and Perry, I. 2001. "The Cultural Impact of Workflow Management Systems in the Financial Services Sector," *The Services Industry Journal* (21:4), October, 2001, pp. 147-166.
- [32] Wang, S & Yeoh, W. 2009. How does Organizational Culture Affect IS Effectiveness: A Culture-Information System Fit Framework, *International Conference on Electronic Commerce and Business Intelligence*.