

# Organizational Factors and Quality of Accounting Information System in Vietnam

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## Abstract

The study was conducted to examine the role of organizational commitment and organizational structure factors for the quality of accounting information system (AIS) in enterprises in Ho Chi Minh City. Research samples of 175 people involved those working in accounting positions in different types of company. Research data were collected primarily through a questionnaire (March, 2017 – June, 2017) and then it is used to analyze descriptive statistics and perform hypothesis testing tests through a linear regression analysis with the support of SPSS software. Result shows that the quality of AIS is influenced by organizational commitment and organizational structure. In that, organizational structure factor is more impact.

**Keywords:** Organizational Commitment, Organizational Structure, Quality of Accounting Information System

## Introduction

In the current context, when information technology has the strong influence in all aspects of life, economy and society, besides the opportunities from globalization, Vietnam also has to face with many challenges, difficulties, there are difficult challenges related to the application of information technology to serve the development of enterprises. The development of enterprises is one of the strong

impacts on the development of the AIS along with factors influencing the operation of the AIS such as requirements on the control and management of administrators, legislation in the field of accounting and the development of information technology.

In a competitive environment, businesses are exposed to a variety of factors that influence the effectiveness and efficiency of the AIS in implementing the system's functions and impact the quality of accounting information. According to many published studies, the quality of accounting information derives from the implementation of a quality of AIS (Sacer et al, 2006), so the quality of AIS will generate good and useful accounting information and that is also the most important function of the AIS. By implementing the functions of AIS, it will help the company achieve its business objectives and help improve and enhance the efficiency and effectiveness of operations (Soudani, 2012), support for activities including the decision-making process of the manager (Gelinas et al, 2011). In addition, a quality of AIS and the effectiveness of internal controls also have a significant impact on the quality of financial statement, the effectiveness of AIS can lead to better decision-making by managers, the internal control system is more effective, improving the quality of financial statement and make a good condition for processing financial transactions (Sajady et al, 2008).

As such, it is possible to see a particularly important role of AIS in enterprises, and for enterprises in Vietnam, most of them are small and medium-sized enterprises with limited ability to manage activities, restrictions on providing of useful information, these restrictions can prevent the development of business and force enterprises to constantly innovate to increase competitiveness in the environment of globalization with the other foreign enterprises, because there will be many types of enterprises investing and operating in Vietnam in the future. This shows the necessity and appropriateness in the study of the quality of AIS, as well as the need to identify the key factors affecting the quality of AIS in accordance with the characteristics of the accounting system as well as the business transformation environment is very diverse and developed as Vietnam nowadays.

What is the basis for determining the quality of AIS and what factors affect the quality of AIS, or how it impacts on the quality of AIS in the Vietnam. It is also the research gap of this article that this research gap is important because the quality of AIS is essential, useful for the effective and efficient operation of the enterprise, as the strong foundation for quality management of accounting information, the quality of AIS is the basis for enterprises to improve the management of the whole enterprise, help the process of executing the decision of the administrator and ensure for business to achieve the goals and strategy.

Therefore, this study was conducted to provide more empirical evidence of organizational factors, namely organizational commitment and organizational structure that influences the quality of AIS in Vietnamese enterprises. To achieve this goal, the author based analysis of previous studies, combining qualitative and quantitative methods through the survey of 175 agents working in different enterprises.

## **Literature Review and Research Model**

### **Organizational Commitment**

Organizational commitment, as defined by Porter et al (1974), has three main components: (1) strong belief and acceptance of organizational goals, (2) willingness to effort significantly on behalf of the organization, and (3) a certain desire to maintain the membership of the organization. This study shows that commitment is not only a predictor factor of employee retention but also predict employees' efforts and accomplishments (Mowday et al, 1979).

Organizational commitment is the extent to which an employee determines the organization and its goals and wishes to remain a member of the organization (Robbins & Judge, 2009). According to Robbins & Coulter (2009), the organizational commitment is the orientation to the organization about loyalty for identity and participation in the organization. According to Luthans (2008), organizational commitment is (1) a strong desire to remain a member of a particular organization; (2) the willingness to make great efforts on behalf of the organization; and (3) a certain belief, acceptance with the values and goals of the organization. From the above, it can be said that the organizational commitment is the loyalty and involvement of employees to achieve the target and to survive in the organization.

### **Quality of Accounting Information System**

The views on the quality of AIS are mainly based on the viewpoint of the quality of the information system that has been implemented in prior studies and is analyzed from the quality viewpoint of the successful DeLone & McLean model. Specific:

According to DeLone & McLean, 1992 & 2003; Seddon, 1997, the quality of the system is associated with success, and they use information system quality scales in line with the developed model including: ease of use,

system functionality, reliability, flexibility, data quality, integration and importance. The model of DeLone and McLean is one of the models of the successful information system; with many authors summarize previous studies of successful information systems based on DeLone & Mclean's model for their research. In the successful information system model, DeLone & McLean (2003) propose that the success of an information system is determined by the quality of the information system (quality of the system) and the quality of the information.

The success of the information system is examined through the use of six factors: (1) system quality, (2) information quality, (3) quality of service, (4) system use, (5) user satisfaction, (6) net benefits. A quality system will affect the use and satisfaction of the system user. The quality of the information system involves measuring the output information of the actual system and are the desired characteristics of the system including: usability, availability, reliability, response time and meet demand. In the study by Peter et al (2008) on measuring the success of information systems related to modeling, dimensions, measuring scale and relationships, the authors claim that the system quality represents the desirable characteristics such as ease of use, flexibility, reliability, ease-of-use, sophistication, and system response time. At the same time, in this study, the author uses the system quality scale of Sedera et al (2004), which includes nine observed variables to measure the quality of information system. According to Sabherwal et al (2006), successful information systems are structured from four aspects: system quality, perceived usefulness, user satisfaction, and system use.

On the basis of the concept of quality of information system, there are many opinions of many authors about the quality of AIS, because in terms of the relationship of nature, the AIS is also information system and AIS has the characteristics of an information system. Specific:

The quality of accounting information comes from the implementation of a quality of AIS. The quality of AIS is the integration of the quality of hardware, software, people, technology networks, databases, quality of work and user satisfaction (Sacer et al, 2006). Some authors have described the quality of the information system through: effectiveness, usefulness, efficiency, user satisfaction. The effectiveness of AIS is the evaluation of the successful AIS to meet established objectives, and one of the key objectives of the AIS is to provide accounting information for the decision-making process of the manager and the related parties.

The quality concept in the AIS is reliable AIS that will generate quality information (Romney & Steinbart, 2015). The quality of AIS associated with the quality of the internal control system reflects the relationship between the AIS and the internal control system (Turner & Weickgenannt, 2008).

The effectiveness of AIS is to measure the success of the AIS to meet established objectives, or the satisfaction of the user (Stair & Reynolds, 2010). According to him, the quality of AIS is often flexibility, effectively, accessibility and timely.

Sajady et al (2008) argue that the effectiveness of AIS is based on the perceptions of decision-makers on the usefulness of information generated by the system to satisfy information needs for processing, management reports, budget estimates and control within the organization.

The quality of AIS is integrated AIS from all relevant elements to create quality accounting information, these are the components of the software, hardware, people, procedures, data and communication networks (Susanto, 2013). The quality of AIS can help determine whether the project is successful or failed, so that managers can make the right decision and fit the conditions of the project.

## Organizational Structure

Organizational structure is the arrangement of organizational units in the organization. The organizational structure shows the division of labor and shows how different functions or activities combine to achieve established goals (Robbins, 2009; Jones & Jones, 2010). At the same time, the organizational structure is the formal pattern in which tasks are divided and coordinated. The organizational structure reflects the division of responsibilities, authority, and accountability in the organization.

According to Greenberg (2011), organizational structure is a formal structure between individuals and groups of employees with the assignment of responsibilities, responsibilities and authority in the organization. One way to understand organizational structure is to look at the organization chart, the organizational structure that provides the framework in which the activities of the enterprise are planned, implemented, control and monitor activities. Each enterprise has an organizational structure that suits its needs and business characteristics, so there is no common pattern; the organizational structure depends on the size and nature of the business. However, the organizational structure of the business must help enterprises implement the strategy that is planned to achieve the goals through the role and function of AIS.

## Research Model and Hypothesis

The research model is based on the assumption that organizational commitment and organizational structure have a direct impact on the quality of AIS (Figure 1).

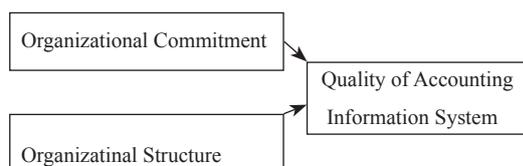


Figure 1: The Research Model

Organizational commitment is a state in which an employee identifies with a particular organization for his or her goals, and wants to remain a member of the organization. Based on these explanations, organizational commitment can be defined as the attitudes and beliefs of employees engaged and loyal to their organization in achieving goals. Luthans (2008) explains aspects of organizational commitment, including emotional commitment, commitment to continuity, commitment to norms, he explains that there is a positive relationship between organizational commitment and expected results include high efficiency and low unemployment. Koskosas et al (2011) found that organizational commitment was positively related to the promulgation of information security behaviors such as new security policies and new technologies that affected business objectives of the unit.

One of the factors influencing the development of the information system is the support and organizational commitment, not only the support of the management but all employees are required to adjust with the new system to ensure a smooth transition in the organization. The purpose of implementing information system can be more effective when people in organizations implement commitment (Lucey, 2005). According to Lucey, when employees commit, they are motivated and managers try to motivate that motivation through their leadership style. Organizational commitment and information system are inseparably linked; the power of organizational commitment can be seen from the support and acceptance of the goals and values of the organizations. A strong organizational commitment is characterized by strong belief and acceptance of organizational goals and values, strong willingness to work for the organization, strong desire to remain a member of the organization (Kuslivan, 2003), so the study assumes that:

*H1: The organizational commitment has a positive impact on the quality of AIS*

A good organizational structure is shown through the specificity, clarity and completeness of functions, rights and obligations of each employee, each part of the company, and good organizational structure will assure for effective control procedures. When managers develop or change an organizational structure, they are involved in the organizational design. The aspects and elements of organizational structure include: job specialization, the division of work activities into specific work tasks (Robbins & Coulter, 2009); scope of control is the number of employees that a manager can manage effectively and effectively (Robbins & Coulter, 2009); the chain of commands is the flow of authority from the top to the bottom of the hierarchy and is clearly assigned at the managers level (Robbins & Coulter, 2009); formalization, how this relates to the standard of organization's work and the level of performance of employees by conduct guided by procedures and rules (Robbins & Coulter, 2009); authorization (concentration and dispersion), centralization is the extent to which decisions are made at the high level, on the other hand the dispersion indicates that employees at the lower levels of supply more input data or make more current decisions (Robbins & Coulter, 2009). In addition, organizational structure is reflected in the size and nature of corporate activities (Romney & Steinbart, 2015).

Organizational structure is the main issue to be considered for the preparation of the information system. The hierarchy is the basic template of the organizational structure for the design of the information system, the larger the organization, the hierarchical structure of the information system is built will be more complex, and in addition to the control time of organizational structure also affects information system (Scott, 2001). Thus, the AIS is influenced by the organizational structure and organizational structure influences the AIS.

Therefore, the author assumes that:

*H2: The organizational structure has a positive impact on the quality of AIS*

## **Research Methodology**

### **Research Design**

The author uses a combination of qualitative and quantitative methods to test hypotheses. The study was conducted by sending questionnaires to individuals working in companies, mainly in HCM city, regardless of the size of the enterprise, the location of operation, type of enterprise and form of ownership. In particular, the main object surveyed in that business is the person in charge of accounting work or the accountant directly using AIS in the enterprise. The survey was conducted from March, 2017 to June 2017.

The content of the quantitative study was a questionnaire with the main content being scales related to measuring the organizational commitment factor according to Porter (1974) and Luthans (2008) scale of 7 observed variables (OCO1 to OCO7), the organizational structure used by Robbins & Coulter (2009) consists of 5 observed variables (OST1 to OST5). The scale of quality of AIS by Gable et al (2003) and Sedera et al (2004) consisted of seven observed variables (ASQ1 to ASQ7). These observed variables were measured using a 5-point Likert scale (1: strongly disagree; 5: highly agree).

### *Statistics Describe the Research Pattern and Data Analysis Method*

Information about the sample: A sample of 175 surveyed individuals working in a variety of businesses, including 71 limited liability companies (40.6%), 60 joint stock companies (34.3%), 20 private enterprises (accounting for 11.4%), the remaining 24 enterprises, including state-owned enterprises and joint-venture enterprises (13.7% ). Regarding business activities of enterprises, the author classifies

6 types, the first one is financial investment accounting for 29.8%, the second is the trade and services with 25.8%, followed by construction (21.5%), manufacturing (15.2%) and education and training and others at a rate of 7.8%). The size of enterprises in the sample also varies, focusing mainly on medium and large enterprises with a total of 108 enterprises (61.8%), followed by small enterprises 28% corresponding to 49 enterprises, followed by micro enterprises with 18 enterprises (rate of 10.3%). Regarding the application of IT in accounting work, the largest number is application accounting software with 120 enterprises (accounting for 68.6%), followed by is use Excel in accounting with 28 enterprises (16%) and finally ERP software (15.4%) corresponding to 27 enterprises using ERP software.

The sample size (n=175) was evaluated by the Cronbach's Alpha coefficient, total correlation coefficient and EFA with criteria: Cronbach's Alpha coefficient greater than 0.6 (Hair et al, 2006), the total variable correlation coefficient is greater than 0.3 (Nunnally & Bernstein, 1994), the KMO coefficient is greater than 0.5, Bartlett's test has P-value <0.05, explanation variance greater than 50%. Research hypotheses were tested by multiple linear regressions, assessment and considered the effects of independent variables on a dependent variable.

## Results and Discussion

### *Result of Assess Scales*

After complete data collection and input into SPSS 22 software, the author performs a scale measurement using the Cronbach Alpha coefficient to eliminate unreliable variables or trash variables in the scale. After eliminating the variables with a corrected item total correlation coefficient of less than 0.3, the concepts of internal consistency, Cronbach Alpha > 0.6. The results of Cronbach Alpha coefficient analysis in Table 1

Table 1: The results of Cronbach Alpha coefficient analysis (Source: Author calculates)

Variable	Cronbach's Alpha	The result of eliminating a variable
Organizational commitment	0.863	No
Organizational structure	0.761	No
Quality of AIS	0.835	No

The results of factor analysis for independent variables show that the KMO = 0.885 satisfies the condition > 0.5 and < 1, so the factor analysis is consistent with the sample data. The results show that two factors were extracted with the total variance explained by two factors greater than 50% (54.85%), the weight factor was greater than 0.5 (Table 2)

Table 2: The results of factor analysis for OCO and OST

Observed variables	Factor	
	OCO	OST
OCO6	.817	
OCO5	.790	
OCO2	.712	
OCO7	.696	
OCO3	.659	
OCO4	.632	
OCO1	.574	
OST3		.776
OST4		.705
OST2		.693
OST1		.626
OST5		.555

The results of factor analysis for the quality of AIS showed that the KMO = 0.840 > 0.5 and < 1, the total variance explained was 50.6% (> 50%), observation variables do not change, so factor analysis is consistent with sample data. (Table 3)

Table 3: The Results of Factor Analysis for ASQ

Observed variables	Factor
	ASQ
ASQ7	.783
ASQ4	.771
ASQ2	.737
ASQ3	.730
ASQ6	.682
ASQ5	.639
ASQ1	.623

### The Results of Analysis Multiple Linear Regression

From the results of the exploratory factor analysis, linear regression analysis was performed to determine the linear relationship between the independent variables (organizational commitment and organizational structure) and the quality of AIS. The regression model has the following form:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + e$$

Y: quality of AIS (ASQ)

X1: organizational commitment (OCO)

X2: organizational structure (OST)

Table 4 shows the Pearson correlation coefficients between independent variables and dependent variable as well as between independent variables, including the correlation between independent and dependent variable with (p-value <0.05).

Table 4: Matrix correlation coefficients

	Organizational commitment	Organizational structure	Quality of AIS
Organizational commitment	1	.596**	.433**
Organizational structure		1	.517**
Quality of AIS			1

Results of multiple linear regression analysis between independent variables and dependent variable are presented in Table 5. Correlation

coefficient  $R^2 = 0.292$ , p-value < 0.05 showed that 29.2% the variability of the dependent variable is explained by independent variables. There are two factors that affect the quality of AIS, so hypotheses H1, H2 are accepted.

The multiple linear regression model of factors is expressed as follows:

$$ASQ = 4.877 + 0.174*OCO + 0.589*OST$$

Table 5: Coefficients

Model B	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Tolerance	
	Std. Error	Beta				VIF	
1 (Constant)	4.877	.922		5.291	.000		
OCO	.174	.072	.194	2.424	.016	.645	1.551
OST	.589	.117	.402	5.026	.000	.645	1.551

### Conclusions and Implication for Research

#### Conclusions

From the two factors derived from theoretical analysis and based on the results of previous studies in the world, the result of the study after performing in Vietnam also found that there are two factors impact on the quality of AIS is: (1) organizational commitment; (2) organizational structure, in which the organizational structure is the biggest impact on the quality of AIS.

#### Implication for Research

The result of this study also have implications for enterprises to pay attention to and improve the quality of AIS as well as to consider the organizational factors in the operation AIS

to help the managers have trust orientation for the development of AIS in the process of international economic integration. Recognizing the importance of AIS in increasing the value of the company and improving the quality of AIS is an important task in the competitive environment. Specifically, enterprises should focus on enhancing the following issues:

Promoting organizational commitment among employees, organizational commitment demonstrates that employees are dedicated to the company, they are willing to dedicate and loyalty to the direction and strategy of the company. In addition, the commitment also shows an effort of the employees because they are proud that they are an integral part of the company. Hence, the greater the employee's organizational commitment, the greater the impact on the work and the performance of the employee through their performance at work, the performance of the work will be better. Thus, in order to have a strong organizational commitment in the employees, enterprises need to fully support employees in the work, company need to have commitments of policies and strategies for training personnel, in particular for accounting staff, next to accounting knowledge, the accountant need knowledge and skills in the use of IT, foreign language skills and the ability to analyze financial statement analysis of accounting information to assist managers in making decisions. In addition, employees need to be provided with adequate working conditions, such as working environment support, staff communication, and other physical and mental conditions for the staff to feel company is a place where they can stick to the long-term and willing to devote to the work, when the staff is oriented and dedicated, the quality of work will improve and certainly AIS with the main component is the people will improve the quality.

The organizational structure demonstrates the ability to manage and operate the business, the assignment of personnel, the clarification of the rights and responsibilities of employees in the process of work will affect the way the

work of personnel. The organization staff is reasonable with position, function and level of staff will help to maximize the work capacity of employees. When employees are arranged, assign properly with their abilities, they will feel loved and responsible for completing the work well, thereby improving productivity and efficiency of work. The suitable organizational structure is considered an effective management method in the business environment, helping accountants improve the quality of work and improve the quality of AIS.

Although the initial purpose was to assess the impact of organizational factors on the quality of AIS, however, the research has some limitations:

Firstly, the author has just conducted a survey in Ho Chi Minh City, so the generality of the research is not high and can be limited. In addition, the study uses a convenient sampling technique by direct interviewing. Consequently, further studies should be conducted in different areas so that a more comprehensive picture of the effect of factors on the quality of AIS can be seen.

Second, this study was conducted over a short period of time due to time and budget constraints in conducting the study, so the sample size was not large.

Third, the level of interpretation of the independent variables for the dependent variable is not high, because there are many other factors that may affect the quality of AIS. Therefore, further studies should be conducted with a larger sample size and consideration of other factors that may affect the quality of AIS in the Vietnamese market.

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