USER PARTICIPATION ON SYSTEM DEVELOPMENT, USER COMPETENCE AND TOP MANAGEMENT COMMITMENT AND THEIR EFFECT ON THE SUCCESS OF THE IMPLEMENTATION OF ACCOUNTING INFORMATION SYSTEM

(EMPIRICAL STUDY IN ISLAMIC BANK IN BANDUNG)

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ABSTRACT: This study is conducted to determine how big the influence of user participation in the system development, user competence and top management commitment on the success of the implementation of accounting information system at Islamic bank in Bandung. The purpose of this research is expected to help develop knowledge and solve problems. The research method used is explanatory research through questionnaire distribution. The simultaneously—a tested result indicates that user participation in system development, user competence and top management commitment significantly affects the success of the implementation of the accounting information system. While partially, user participation and user competence significantly affects the success of the implementation of accounting information system while top management commitment does not give any influence.

KEYWORDS: Uer Participation, User Competence, Top Management commitment, the Implementation of Accounting Information System

INTRODUCTION

Background

Competition, changes and uncertainty exist in the business world. Today's business world experiences heavy pressures. The atmosphere and condition around an organization has become more complex and volatile as the result of advancement of communication, transportation and technology. Competition has become global and there are no boundaries. Therefore, an information system that is able to effectively and efficiently capture, create and manipulate internal and external information is needed. (Lau, 2004; 24).

Information system is an integral part of an organization, for some companies, their business will not run well without an information system (Loudon-Loudon 2007: 19). Information systems can be a well-organized combination of human, hardware, software, communication network, data resources, policies and procedures that store, retrieve, modify, and distribute information within an organization (James O'Brien, 2011: 4). Fast development of information technology is very influential on the development of accounting information systems as a result of the company's changing external environment. A new information system must be able to meet the demands on

new information that is required by management under certain criteria; reliable, accurate and on time, therefore, if there is an obsolescence of information system, information system development must be conducted through several stages starting with planning the system, designing the system and operating the system (Wilkinson: 1993: 14-15). To support the achievement of corporate goals and the developing accounting information system, followed by the implementation, management must pay attention to several factors that influence the success of accounting information system.

According to Fung Tjhai Jen (2002), his research indicates that there are several factors that influence the success of accounting information systems, such as the engagement / involvement of users in the system development, personal technical skill of information system, organization size, top management support, formalization of system development, training programs and user education, board of information system, and the location of information systems department.

This study is conducted to determine the empirical evidence about what factors are likely to influence the success of accounting information system. For this study authors used only a few variables including user participation, user competence, and top management commitment. User participation is obviously needed in the process of information system development because a system will not be effective in helping any work when the determination does not involve users of accounting information system. Participation is a behavior, work and activities that is undertaken by users during the development process of information system (Lau2004: 27) .Therefore, user participation system development commitment and the engagement of users so users can receive and use the information system developed and improve users' satisfaction at the end. (Lau2004: 28), Meanwhile the compentece of information system users is beneficial and has an important role in information system development that can be useful in creating any information in order to make an accurate planning report. Furthermore, information system will be more beneficial in helping personal activities that are used. The support from top management level is important in the implementation of a system, especially in an innovative situation where the power of management is related to resources needed. Objectives and initial strategy are planned when the leaders fully support in the implementation of the new system. The support from top management has a significant influence on the success of the implementation of accounting information system (ACEP komaara: 2005)

This research was conducted at one Islamic Commercial Bank in the city of Bandung, considering the rapid development of Islamic banking in Indonesia, especially Islamic Banks (BUS) in the city of Bandung. Based on the background described above, the researchers are interested in conducting research and analyzing the problems of the system information that has been used in Islamic banking ,especially in Islamic Banks under the title "The Influence of user participation in system development ',user Competence and Commitment of Top Management on the success of accounting information system. (A study in a Commercial Islamic Bank in Bandung)

Problem Formulation

Based on the research background, the problem formulation of this research is: How big is the influence (partially and simultaneously) of user participation in system development, user competence and the support of top management on the succession of accounting information system in Islamic banking (BUS) in Bandung.

Research Objectives

The objectives of this research is to investigate and examine the effects (partially and simultaneously) of user participation in the development of system, user competence and commitment of top management on the success of the implementation of accounting information systems in Islamic Banks (BUS) in Bandung.

LITERATURE

User Participation

User participation is defined by Barki & Hartwick (1989) as behavior, assignment and activities performed by the user or their representatives during the system development process (Jogiyanto, 2002: 427). In 1994 Barki & Hartwick conducted research to develop a system and measure empirically a theoretical framework that explains the relationship between user participation and the use of the system. The test results shows user participation in the development of the system creates a more positive attitude towards the system.

Users competence

According to Laudon (2008), users of the system need to know and understand information technology used by a company in its information system. If users have the expertise and understanding of the system used, they will feel more attached to the system, so that they can use the system properly. Having the users understanding of the system, the information current /flow will be delivered and can be interpreted properly and is expected to give a good quality of information .The Implementation of accounting information system can consider the information system users so it y (???) of the system users. Tjhai Jen (2002) in his research indicates that user competence variable has a positive relationship with users satisfaction variable.

A good level of user competence will encourage users to use accounting information system that will lead to a better and more successful accounting information system. Users of information system who have a good level of competence they gained from education or from their experience using the system will increase the satisfaction in using the accounting information system, so that they will continue to use it to help them doing their work because users have sufficient knowledge and ability. TjhaiFungJen (2002) stated that the more competent someone is in using the system, the higher the success of accounting information system will be.

In line with a study conducted by Jong Min (1996) and Soegiharto (2001) and AcepKomara (2005) which acknowledged a positive relationship between the users competence and the success of accounting information systems. Meanwhile, According to Robbins (2007: 42) defines competency / capability or ability as: ""Ability refers to an individual's capacity to perform the

various tasks and job "Robbinsdi's above statement explains that competency / skill or potential is an ability to master a skill which is congenital or the result of exercise or practice and wanted in order to do something that is manifested through actions.

Competence / capability of accounting information system users according to Robbins (2008: 42) are:

a.Knowledge,b.Abilityc. Skills

Commitment of Top Management

According to Sandesh Sheth (2010), the commitment of top management plays an important role in the success of the implementation of information system. The commitment of Top management is not only important for the necessary resources allocation but it also gives a strong signal to employees that any changes made are essential. Top management also possesses power and influence to promote the development of information system that allow users to participate in the development of the system and will also affect user satisfaction. The commitment given by the top management to accounting information system is an important factor in achieving the success of information system that is related to activities. One of the assistance that can be given by leaders is by giving support to their staff.

When top management fully supports the development of information system and the support is well-received by users, it will give satisfaction to the information users. Furthermore, top management is also responsible to provide general guidelines for any activities of information system. The level of support provided by the top management for an organization's information system can be a very important factor in determining the success of all activities related to information system (Englund & Bucero: 2006). Similarly, Soegihartos' study (2001) stated that there is a positive relationship between the support given by top management and the success of accounting information system. Tjhai (2002) indicated that there is a positive correlation between top management support variable and the success of accounting information system.

Fung Tjhai Jen (2002) stated that a greater commitment given by the top management will enhance the success of Accounting Information System, due to the positive relationship between the commitment of top management in the process of accounting information system and the success of Accounting Information System.

The success of The Implementation of Accounting Information System

a. Accounting Information Systems

According to Nancy (2010; 5) Accounting information system is a collection of data, such as processing procedure, that provide any information needed by its users. meanwhile azhar susanto (2013;124) stated that Accounting information system is a collection of sub-systems/components (material or non material) that is related to each other and work in harmony to process transaction data that is related to financial problem into financial information/statement.

Accounting Information system is a sub-system of financial and non-financial transactions, a

process that directly influence the financial transaction process. (James A. Hall, 2011: 7).

Accounting Information System is a group of an entity structure, such as a business enterprise, whereas employees, physical resources and other components are used to change economics data into accounting information, with the goal to satisfy the information needs of various users. (Joseph W Wilkinson 2000: 5)

b. Components of Accounting information system

Accounting information system components, including; *Hardware*, *Software*, *Brainware*, *Procedure*, *Database*, *Communication Network*. (Azhar Susanto 2013: 72) (Sri Mulyani: 2009: 74).

c. The success of Accounting Information System Implementation

According to Etezadi and Farhoomand (1996), Kettinger and Lee (1995), Shirani et.al (1994), and Thong and Yap (1996), the success of the implementation of accounting information system reflects on user satisfaction, which are the usefulness / benefits that is received by a user of accounting information systems. Meanwhile, according to Gelderman (1998), the success of the implementation of accounting information system is the intended use of accounting information system in people's daily work and *user satisfaction* of the accounting information system. Furthermore Straub et al (1995) defines that the success of the implementation of accounting information system as *intention-use* and *user satisfaction*.

Then according to Tjhai Jen Fung (2002), the success of accounting information system is measured through user satisfaction and system usage. In this study, the definition of successful implementation of accounting information systems refers to Straub, et.al. (1995), Gelderman (1998), and Jen Tjhai Fung (2002), in which the successful implementation of accounting information system is the *intended use of* the accounting information system in various managerial tasks and user satisfaction of the information provided by accounting information system.

Research Hypothesis

There is an influence between user participation in system development process, User Competence and top management's support to the successful implementation of the accounting information system either partially or simultaneously. The description is as follows:

- H1.: There is a significant relationship between user participation in the development of the system and the success of accounting information system
- H2: There is a significant relationship between the competence of system users and the success of the accounting information system
- H3: There is a significant relationship between top management's supports to the success of accounting information system.
- H4: There is a significant relationship between user participation in the system development, user competence and top management's support to the success of accounting information system.

Methodology

Research Method

The research method is basically a scientific way to get data with certain purpose and usefulness. Scientific way means the research activities are based on the characteristics of science, namely rational, empirical, and systematic. (Sugiono, 2011: 2). The method used is *explanatory research*. *Explanatory research* is research that explains the causal relationship between variables (Cooper & Schindler, 2006: 154). Explanatory research method refers to a theory or hypothesis that will be tested as the cause of the phenomenon. According to Singarimbun and Sofian Effendi (2011: 5), explanatory research is research that describes causal relationships between variables through hypothesis testing.

Types and Techniques of Data Collection

Data used in this research is primary data and secondary data. Secondary data technique to collect primary data is done through research in the field by compiling questionnaires. The respondents in this research were the users of accounting information system in Islamic commercial banks in Bandung. The reason for the selection of accounting information system as respondents in this study is because the users who work in Islamic banks are those who understand the process and application of accounting information system in a company.

Population and Sample Research

According to Kerlinger (1992), population is a set, while the set referred to in the study can be objects, people, symptoms, events, or other things that have certain characteristics to clarify the research problem. Meanwhile, according to Cooper and Schindler (2006: 717) population is the entire collection of elements that can be used to make some conclusions. A group of elements is basically the object which will be observed by a researcher. The target population in this research is the Islamic Commercial Banks in the city of Bandung. There are eight Islamic commercial Banks in Bandung. The researchers used non probability sampling to collect data. Non Probability sampling is a sampling technique that does not give an equal opportunity to each element or member of population to select as a sample (Sugiono, 2009: 84). Based on this opinion, the entire population is used as a sample. There are eight Islamic banks as samples. Observation units are the system users of those banks, approximately 60 respondents.

Method of Analysis Research

This study will analyze the pattern of the causal relationship between variables. Before the analysis is conducted, research instruments testing are conducted. (Validity and Reliability Test). It is followed by Descriptive Analysis which provides a descriptive overview of primary data collected from respondents' answers and, analysis verification using statistical analysis tools ie regression analysis which has been tested before. : Classical Assumption Test includes normality test, multicollinearity test, heteroscedasticity test, autocorrelation classic assumption test, Hypothesis Testing (Testing hypotheses Test used is t test and F test). SPSS Software. is used to process data.

RESULTS AND DISCUSSION

Characteristics of Respondents

Based on the distribution of questionnaires to the users of accounting information system in eight Islamic Commercial Banks in Bandung. The characteristics of employees include: gender, educational background, educational level, age, years of service and others. The respondents 'characteristics are mentioned in the table below:

Table 1 Characteristics of Respondents

33	55
27	45
2	3
9	15
7	78
2	3
24	40
26	43.33
8	13.33
2	3.33
	27 2 9 7 2 24 26 8

Source: Data processing questionnaire

Based on Table 1, we can see the distribution of respondents according to gender, there are more male respondents (33 respondents or 55%) than female respondents (45%). Under the characteristic of educational level, most of the correspondents are under-graduates (78%), ,most of the respondents have worked for 5-10 years (43.33%), and the smallest group has worked for more than 15 years (3.33%).

Validity and Reliability Test Results

Before the data obtained from questionnaires is processed, firstly validity and reliability testing is conducted on research measuring to prove whether the measuring instrument that is used has validity and reliability. According to processing results using moment product correlation and *Cronback Alpha method*, validity and reliability testing results are as follows:

Table 2
Results validity and reliabilities

Variables	Validity	Reliability (Cronbach Alpha)
User Participation	0.761	0.719
1		0.713
Top Management's commitment	0.608	0.756
Successful implementation of accounting information systems		0.837

Source: The results of data processing

The table shows that the result of the calculation of validity and reliability tests for each variable is in average above 0.3 for the validity test, and above 0.7 for reliability test. As described in the research methodology, to test the instrument, statistical approachment using Rank Spearman correlation is used. If the correlation coefficient of the statement items and the total score of other items is \geq 0.30, the statement is valid.

If the reliability coefficient is higher than 0.70, it is under the critical value of 0.70. The test results show that all statement items that are used are reliable so that it can be concluded that the questionnaire used has already provided consistent results

Descriptive Analysis

Descriptive analysis is conducted to determine the extent of user participation in the system development, user competencies, top management's commitment and the success of the Implementation of Accounting Information Systems in the Islamic Banks (BUS) in Bandung. The descriptive analysis is based on the respondents' answers to the questionnaire that is returned. Having obtained the achievement score of each variable and the dimensions of the research, the determination of categories based on the scores intervals criteria are conducted as follows;

Interval Category Criteria Score

Interval Score	Categories
0% score \leq interval \leq 21%	Very Low
Interval scores $\leq 21\% \leq 41\%$	Low
Interval scores $\leq 41\% \leq 61\%$	Moderate
Interval scores $\leq 61\% \leq 81\%$	High
Interval scores $\leq 81\% \leq 100\%$	Very High

Source: Sugiono (1997)

The calculation results of the respondents at Islamic Commercial Banks in Bandung on users participation in the system development, the score is 72.41% and in the interval of 61% - 80%. It can be concluded that the participation of users in the existing development of information systems

in Islamic Banks in Bandung is high.

Meanwhile the result of the respondents regarding user competence is in the interval of 61% - 80%. It can be concluded that user competence in Islamic Banks in Bandung is high. The top management's commitment of Islamic banks in Bandung is 76.2% and in the interval of 61% - 80%. Therefore, the commitment of top management at in Islamic banks is quite high. While the score of the successful implementation of accounting information system 69.79% and is in the interval of 61% - 80%. It means that the success of the implementation of accounting information system in Islamic banks in Bandung is quite high. According to descriptive analysis, user competence, top management's commitment and the success of the implementation in Islamic banks in Bandung is high.

Verificative Analysis (Multiple Regression and Hypothesis Testing)

Regression Analysis

Regression model is used to predict and examine the changes that occur in the success of the accounting information system that can be described or explained by the changes to the three independent variables (user participation, user competence and top management's support). The results of data processing give regression result as follows:

Table 4
Results of Estimated Multiple Regression Equation

a.	model	Unstandardized Coefficients		Standardized coeeficients	t	Sig
		В	Std Error	Beta		
	1 (constant)	-3.127	4.425		-707	.483
	Participation	.260	.040	.591	6.561	.000
	Competence	.427	.142	.272	3.013	.004
	Commitment	.282	.208	.136	1.350	.182

Dependent variable: The success of Accounting Information System

Based on the data in Table 4, we can create a prediction model of user participation variable in information system development, user competence and top management's commitment as follows: Y = -3.127 + 0.260 (X1) + 0.27 (X2) + 0.282 (X3) + ei

Interpretation of the regression model is as follows:

- 1. Constants -3.127 suggests that if the independent variable of user participation, user competence and top management's commitment is equal to zero, then the rate of successful implementation of the accounting information system will increase one unit so the success of system implementation is 3.127
- 2. Regression coefficient 0.260 means that if the variable of user participation (X1) increases one unit, the success of the implementation of the accounting information system (Y) will increase by 0.260 under the condition that other independent variables still remain

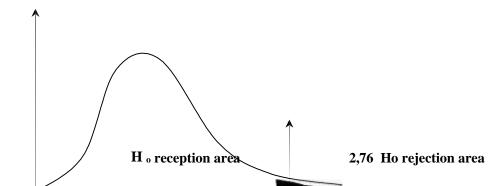
- 3. Regression coefficient 0.270 means that if the variable of user competence (X2) increases one unit, the success of the implementation of the accounting information system (Y) will increase by 0.270 under the condition that other independent variables still remain
- 4. Regression coefficient 0.282 means that if the variable of Top Management's Commitment (X3) increases by one unit, the success of the implementation of the accounting information system (Y) will increase by 0.282 under the condition that other independent variables still remain

Hypothesis Testing

Test F

Test –F is to determine the effect of user participation in the development of the system, user competence and top management's commitment to the success of the implementation of the accounting information system at Islamic Banks in Bandung. The formulation of statistical hypothesis as follows:

- Hypothesis Variable Formulation
- H $_{0:}$ β $_{1,}$ β $_{2,}$ β $_{3}$ = 0, user participation, user competence and top management do not influence the success of accounting information system.
- H_i : B_{1} , β_{2} , β_{3} , 0, user participation, user competence, and top management's commitment influence the success of the implementation of accounting information system.
- Determining the significant level and the testing, which is F table 2.76 is obtained at a significant level of 5%.



• Determining the amount of F- Count that is obtained troin the testing result using SPPS program (see table below) .F-count obtained is 40.253 (see table 5).

Table 5

ANOVA b

Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	910 130	3	303 377	40 253	.000 а
1	Residual	422 053	56	7537		
	Total	1332.183	59			

a. Predictors: (Constant), Commitment of Top management, participation, competence

• Testing Criteria

Accept H_0 : If $F_{count \le }F_{table}$

b.Dependent Variable: The successful Implementation of Accounting Information System

Reject H 0: if F arithmetic > F table

- O Based on Table 5, F value is 40.253, and for F table with $\alpha = 0.05$ and independent degree is 3 and 56 the value of F table is 2.76. This means that F count (40.253) is bigger than F table (2.76), or with the value of Sig 0,000<Than 0.05, Ho is rejected and Ha is accepted.
- Conclusion: Based on the significance level of 5%, the test result indicates that simultaneously, there is a significant influence between user participation, user competence, and top management's commitment to the success of the implementation of accounting information system at Islamic banks in Bandung. There is a significant difference.

To find out how big the influence of user participation, user competence, and top management's commitment on the success of the implementation of accounting information system, we can see it from the determination coefficient, which is based on the results of SPSS process, that the value of Adjusted R-Square is equal to 0.666 or 66.6%, (see table 6),

Table 6 Model Summary

Model	R	R Square	Adjusted R Square	Std.Error of the Estimate
1	.827 ^A	.683	.666	2.74530

a. Predictors: (Constant), Commitment of Top management , user participation, user competence

This indicates that the three independent variables - user participation, user competence and commitment of top management - simultaneously are able to increase the success of the implementation of information systems accounting to 66.6%. It means that user participation, user competence and top management all together give influence of 66.6% to the success of the implementation of accounting information systems in Islamic Banks in Bandung.

The remaining 33.4% is influenced by other factors that are not observed, which is the influence of other factors beyond the three independent variables studied

b. T test

T-test is to determine the effect (partially) of user participation, user competence and top management's commitment to the success of the implementation of the accounting information system in Islamic Banks in Bandung

Based on Table 4 above, it turns out that user participation in the development of information system significantly influences the success of the implementation of the accounting information system. It can be seen from the sig value 0.00 < 0.05. Meanwhile user competence significantly influences the success of the implementation of the accounting information system, with sig value 0.004 < 0.05. On the other hand, top management's commitment does not have any influence on the success of the implementation of accounting information system for the sig value 0.182 > 0.05. To find out how big the influence of each user participation, user competence and top management's commitment on the success of the implementation of accounting information system, determination co-efficient is used. The amount of influence of user participation towards

the success of the implementation of accounting information systems in Islamic Banks in the city is 57.9%, while the remaining 42.1% is influenced by other factors. The influence of competence on the success of the implementation of information systems is 37% and the top management's commitment to the success of the implementation of the accounting information system is 29.5%.

CONCLUSION

Based on the results of problem formulation and the discussion of the results of research in previous chapters, it can be concluded as follows: User participation in the development of information system, user competence, and commitment of top management in Islamic banks in Bandung basically has a very important role in creating the success of the implementation of the accounting information system. It can be seen from the influence of 66.67% they give, whereas if we observe each variable, user participation variable gives influence on the success of the implementation of information systems for 57.9%, while user competence gives 37% and top management's commitment gives 29.5%. Based on the partial hypothesis testing, user participation in system development and user competence significantly influence the success of the implementation of the accounting information system but, top management's commitment does not influence the success of the implementation of the accounting information system.

REFERENCES

- Arikunto, Suharsimi, 1998. Prosedur Penelitian. Edisi 4.RinekaCipta, Jakarta
- Azhar Susanto, 2013: Sistem Informasi Akuntansi: Struktur Pengendalian Risiko Pengembangan: Edisi Perdana, Lingga jaya, Bandung.
- Barki, H., & Hartwick (1994), Measuring user participation, user Involvement and User Attitute, Management Information System Quartely, Hal 59-82
- Bagranof, Nancy A., Mark G. Simkin, Carolyn S. Norman, *Accounting Information Systems*, Seventh Edition, 2011 South-Western.
- Bodnar, George H. dan William Hopwood S. 2000. *Sistem Informasi Akuntansi*. Jakarta: Salemba Empat. Englund & Bucero, 2006, Project sponsorship: Achieving Management Commitment for Project success, John Wiley & son. Inc., 989 Market Street, San Fransisco, CA
- Etezadi-Amoli, J., and Farhoomand, A.F. 1996. A structural model of end user Computing Satisfaction and User Performance. *Information & Management*. 30(2): 65–73
- Gelderman, M. 1998. The Relation Between User Satisfaction, Usage of Information Systems and Performance. *Information & Management*. 34: 11-18
- Gelinas U, A. Oram, W. Wriggins, 2008, *Accounting Information Systems*. Pwskent Publishing Company, Boston,
- Ghozali,Imam.2001. *Aplikasi Analis Multivariate Dengan Program SPSS*. Badan Penerbit Universitas Diponegoro.
- Indriantoro, Nurdan Bambang Supomo. 1999. *Metodologi Penelitian Bisnis: Untuk Akuntansi dan Manajemen*. BPFE, Yogyakarta.
- James A. O'Brien, 2010, Introduction To Information Systems, Fifteenth Edition. The McGraw-Hill Companies, Inc

Jogiyanto. 1997. Sistem InformasiAkuntansiBerbasisKomputer.EdisiKedua.

BPFE, Yogyakarta

- Komara, Acep. 2005. Analisis Faktor-Faktoryang Mempengaruhi Kinerja Sistem Informasi Akuntansi. Materi Simposium Nasional Akuntansi VIII. Solo: 15-16 September 2005.
- Kerlinger, F.N. 1992. *Asas-Asas Penelitian Behavioral. Edisi Indonesia*. Cetakan Kedua. Yogyakarta: Gadjah Mada University Press.
- Lau, Elfreda Aplonia,2004, Pengaruh Partisipasi Pemakai Terhadap Kepuasan Pemakai Dalam Pengembangan Sistem, Jurnal Riset Akuntansi Indonesia Vol 7 No 1 Januari
- Loudon, Kenneth C. And Jane P. Laudon, 2012: *Manajemen Information System: Managing The Digital Firm.* 12 Th Edition, Prentice-Hall.
- Nancy A Bagranoff, DBA Mark G Simkin PH.D caroln strand,2009: Core concepts of Accounting Information system, Eleventh Edition
- Sri Mulyani, 2009, Sistem Informasi Manajemen Rumah Sakit, Analisis dan Perancangan, Edisi pertama, Penerbit Abdi Sistematika Bandung.
- Soegiharto.2001.TheEffectofOrganization'sLevelofInformation System EvaluationontheRelationship BetweenInfluenceFactoisand Accounting Information SystemPerformance.DalamGajahMada Internasional *Journal of Business*, 4 (1):h: 67-69.
- Stair, Ralph M. And George W. Reynolds, 2010, *Principles Of Information Systems, Course Technology*, 9th Editions, Mc-Graw-Hill
- Straub, et.al. 1995. Measuring System Usage: Implications for IS Theory Testing. *Management Science*, 41(8): 1328–1342.
- Shandesh Sheth, 2010. Ten Things Tahat Indicate Top Management Support for Business, Continuity
- TjhaiFungJen.2002. Faktor-Faktor yang Mempengaruhi Kinerja Sistem Informasi Akuntansi. Dalam Jurnal Bisnis dan Akuntansi 4(2),h: 135-154
- Widjajanto, Nugroho. 2001. SistemInformasiAkuntansi. Jakarta: Erlangga.
- Wilkinson, JosephW. dan MarianusSinaga. 2000, *Sistem InformasiAkuntansi Edisi Kedua Jilid 1*. Erlangga, Jakarta.