How the Quality of Accounting Information System Impact on Accounting Information Quality (Research on Higher Education in Bandung)

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Abstract: The purpose of this study was to determine how much influence the quality of accounting information systems on Accounting Information Quality in Higher Education in the City of Bandung, Indonesia. This study was conducted based on the facts on the research findings that indicate to the present system accounting information on the various organizational units not integrate well yet safe to use, difficult to use, difficult to access, not flexible and efficient and they often had problems/errors. Such conditions lead to dissatisfied users and applications the system is not used in the organization's activities. Furthermore, the condition of accounting information on the various organizational units in Indonesian not much different and it can be said not quality because accounting information can not be presented timely, accurate and relevant is not presented in full, it is not safe to use, difficult to access, the presentation did not follow the standards/guidelines and less can be understood by the various users. The method used is descriptive and explanatory research with the number of samples used in this study was 37 Universities. Statistical testing using Structural Equation Modeling (SEM) based component or a variance known as Partial Least Square (PLS) and test the hypothesis by using SPSS 2.0 for Microsoft Windows. The results showed the quality of accounting information systems significant positive effect on quality of accounting information on higher education in the City of Bandung, Indonesia.

Key words: The quality of accounting information systems, the quality of accounting information and universities in Bandung Indonesia, explanatory research, Partial Least Square (PLS), SPSS 2.0

INTRODUCTION

Until now, quality accounting information systems can not be fully applied to various types of companies in Indonesia. Not quality accounting information as yet integrated information system, accounting information system is still not safe to use, they found the inaccurate recording transactions, in addition to these conditions is still accounting information systems are inflexible and inefficient. The findings of fact stated by Sirait (2014), Haryanto (2015) and Persadha (2015).

Accounting information system is a collection (integration) of the sub-systems/components both physical and nonphysical interconnected and cooperate with each other in harmony to process transaction data related to financial problems into financial information (Susanto, 2013). The integration of different components/sub-systems in accounting information systems can fulfill three main business functions within an organization, namely: AIS function in the collection and storage of data integreted with a variety of activities resources and employees in an organization, AIS function in transforming data into information that can be used by management in planning, executing, controlling and evaluating a variety of activities, resources and employees of the ompany, provides adequate control for save property and its data (Romney and Steinbart, 2015).

Accounting information systems produce accounting information (Boockholdt, 1999). Accounting information systems built with the main purpose to process financial data into the accounting information (Susanto, 2013). The system accounting information is designed to change the financial data with the aim to produce financial information that can be used as a basis for decision making (Bodnar and Hapwood, 2014). Accounting information systems provide added value to an organization by providing accounting information is accurate and timely (Romney *et al.*, 2006). Information is a powerful force for an organization (Baltzan, 2014). Information is an important resource for an organization (Bodnar and Hapwood, 2014). Information in all parts of the organization. The quality of information generated in an organization will affect every decision taken by the management or by the perpetrators of the organization (Susanto, 2013). Quality information is information useful

in the decision making process (Gelinas and Dull, 2008). Furthermore state to be used in making decisions, the information generated from the accounting information system must have the properties/relevant and reliable. O'Brien and Maracas states the quality of accounting information can be described using the time dimension (information technology) content (content) and the format/form (form) (Haag *et al.*, 2005). That the quality of information can be explained by: time dimension, location dimension and dimension form. Furthermore, Gorla classifies the quality dimensions of information into two groups: the content dimension (content information) and Form dimension (format information). This study aims to reexamine how much SIA quality affects the quality of accounting information is carried out at universities in Bandung.

Literature review

Accounting information system: Accounting information system to record and process the transaction data is communication the financial and accounting information that can be used in decision making (Kieso *et al.*, 2010). According to Romney and Steinbart (2015), accounting information system is a system that collect, record, store and process the data to produce information used in the decision-making process. Furthermore, O'Brien and Marakas (2014) states accounting information system is an information system that records and reporting the activities of business transactions and the flow of money/funds in an organization to further produced financial statements.

DeLone and Mclean (1992a, b) uses the term success/effectiveness to demonstrate the quality of information systems. Post and Anderson (2003) states quality information system is measured by the ability to provide information needed by the information systems manager at the time and appropriate. Furthermore, according to Deghanzade, the effectiveness of accounting information system is a condition of user satisfaction information in getting the desired information. In line with previous opinion, Nicolaou (2000) and Susanto (2013) states effectiveness of information systems is a condition of availability of information in decision making in accordance with the needed. Based on the various statements can be said that the quality/success effectiveness of the accounting information system is a condition of satisfaction of users of information systems in accordance with the information that is needed in the decision-making process.

The quality of accounting information system according to Stair and Reynolds (2011) is the satisfaction of users of information systems and the valuable

information generated. Furthermore, Kieso *et al.* (2010) states the efficiency and effectiveness of the accounting information system refers to the principles of certain basic consisting of: cost-effectiveness, usefulness (efficiency) and flexible. Seddon and Yip (1992) developed a model of the effectiveness of information systems by using five dimensions: system quality, information quality perception of the level of use, user satisfaction and use of information systems. Baltzan (2015) to measure the quality of accounting information systems in viewpoint: usability user satisfaction, the rate of change (flexibility) and finance (financial). In a deeper study, Stair and Reynolds (2011) states the size of an effective information system is the condition of user satisfaction (user satisfaction) systems as well as the condition of a system that can receive and use (system use) by an organization. Furthermore, Boockholdt (1999) states that the accounting information system of quality if the achievement of objectives in generating accurate and timely, sensible use of time in its development (efficient) meet the needs of the organization and giving satisfaction to the users. In this study, the quality of accounting information systems are limited to the dimensions of the use of information systems and user satisfaction system to the desired information.

Quality of accounting information: Information by Romney and Steinbart (2015) is the data that has been organized and processed to give meaning to the user. Users need the information to the make decisions or improve the decision making process. Gelinas and Dull (2008) describes the notion of information as follows: Information is the data is presented in a form that is useful in decision making activities. In line with various previous opinions (Laudon and Laudon, 2014) states the information is the data that has been shaped into something that has meaning and useful for users. Likewise with the views expressed by Susanto (2013). The information is the result of the data processing that Gives meaning and benefits for the user. Based on various definition that has been presented, it can be concluded that the information is the data that has been processed that has meaning and useful for a variety of users.

Valuable information/quality and can be used in decision making should have the characteristics/traits of certain (Stair and Reynolds, 2011). A high quality product information information own characteristics, attributes or quality that makes information more valuable to those who use. Quality information is the right information (relevant) for use. Gelinas and Dull (2008) measures the quality information through the information timely, easily understood, easily accessible and can be
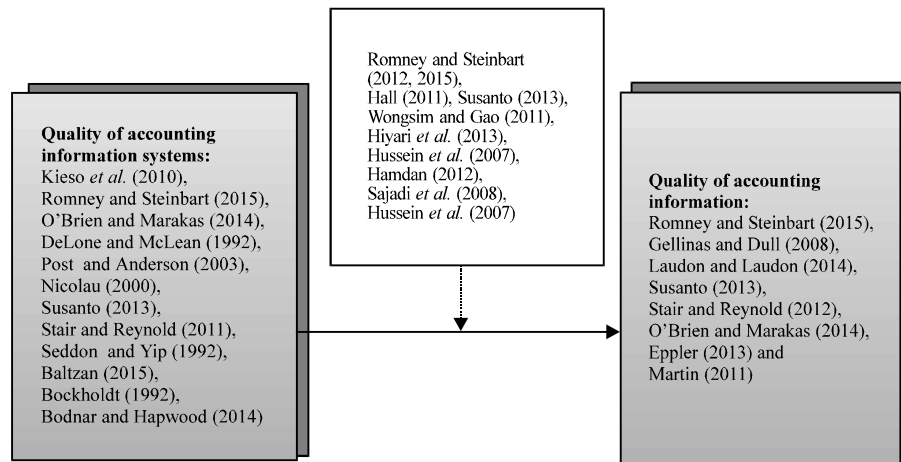
Fig. 1: Schemes framework

verified. Valuable information/quality according to Stair and Reynolds (2011) must have the characteristics: easily accessible, accurate/precise, complete, economical flexible, relevant, reliable, safe, simple, available timely and verifiable.

Framework and hypotheses: Information systems within an organization to function in processing and providing information that can be used in the process of making decisions and information systems produce high quality information that can be used a variety of users to be able to do a variety of tasks more effectively and efficiently (Hall, 2011). Accounting information system is built with the main purpose to process the data into accounting accounting information needed by a wide range of users to reduce risk when making decisions (Susanto, 2013). An accounting information system can improve the decision making process by providing information to provide accurate and timely (Romney and Steinbart, 2012). Results of research conducted by previous researchers showed consistently empirical evidence that the quality of accounting information systems affect the quality of accounting information on the various organizational units worldwide. Research conducted by Wongsim and Gao (2011), Hussein *et al.* (2007) provides empirical evidence there is a significant positive effect between the quality of accounting information system on the quality of accounting information (Fig. 1).

MATERIALS AND METHODS

This research method using descriptive and explanatory research. The study population as many public and private universities in Bandung as many as 60 universities with a sample of 37 universities selected by

probability sampling methods. Validity test performed to determine the feasibility of variable and reliability tests to measure the reliability of the measured object. Descriptive analysis of data was done by using a score categorization inter quartile range (Cooper and Schindler, 2013). Analysis of verification are used Structural Equation Modeling (SEM) based component or a variance known as Partial Least Square (PLS).

RESULTS AND DISCUSSION

Testing the validity and reliability: All measure to the variable quality of the information system accounting and accounting information quality variable declared invalid because value $t_{count} > 0.30$ so it can be concluded that the measuring tools such as questionnaires statement has had a good level of validity (appendix). Based on research data reliability test results good for two variables (quality of accounting information systems and quality of accounting information) indicates that tcount more value of >0.7 can be concluded the statement questionnaire as a measure of the variables used are reliable (recapitulation in the annex).

Structural equation modeling: Structural equation model for the effect of accounting information system quality information quality on calculated using SEM approach Partial Least Square (PLS) as follows:

$$\eta_2 = 0.608\,\eta_1 + 0.631$$

Testing measurement model (outer model)
Convergent validity: The results based on Table 1 show dimension user satisfaction and system usage has been appropriately used as a model for the measurement of the ariable quality of accounting information system

Table 1: Measurement model accounting information systems quality variable

Manifesto variable	Loading factor	Measurement model	t_{hitung}
User satisfaction (X_1)	0.916	$Y_1 = 0.916\ Y + 0.162$	49.807
System usage (X_2)	0.942	$Y_2 = 0.942\ Y + 0.112$	65.868

Table 2: The measurement indicator of dimensional models the variable quality of accounting information systems

Manifesto variables	Loading factor	Measurement model	t_{hitung}
$X_{1.1} \leftarrow X_1$	0.7679	$Y_{11} = 0.7679X_1 + 0.410$	13.1839
$X_{1.2} \leftarrow X_1$	0.7707	$Y_{12} = 0.7707X_1 + 0.406$	11.5414
$X_{1.3} \leftarrow X_1$	0.7990	$Y_{13} = 0.7990X_1 + 0.362$	14.3516
$X_{1.4} \leftarrow X_1$	0.7008	$Y_{14} = 0.7008X_1 + 0.509$	12.3391
$X_{2.1} \leftarrow X_2$	0.8422	$Y_{21} = 0.8422X_2 + 0.291$	17.9928
$X_{2.2} \leftarrow X_2$	0.8164	$Y_{22} = 0.8164X_2 + 0.333$	14.6540
$X_{2.3} \leftarrow X_2$	0.7895	$Y_{23} = 0.7895X_2 + 0.377$	10.5291
$X_{2.4} \leftarrow X_2$	0.7545	$Y_{24} = 0.7545X_2 + 0.431$	11.2357

Table 3: Measurement model variables accounting information quality

Manifesto variables	Loading factor	Measurement model	t_{hitung}
Time dimension (Y_1)	0.922	$Y_1 = 0.922Y + 0.150$	35.198
Content dimension (Y_2)	0.907	$Y_2 = 0.907Y + 0.177$	30.506
Location dimension (Y_3)	0.848	$Y_3 = 0.848Y + 0.280$	20.635
Form dimension (Y_4)	0.818	$Y_4 = 0.818Y + 0.330$	14.992

Table 4: Measurement models to the dimensions indicators accounting information quality variable

Manifesto variables	Loading factor	Measurement model	t_{hitung}
$Y_1.1 \leftarrow Y_1$	0.897	$Y_{11} = 0.897Z_1 + 0.196$	35.162
$Y_{1.2} \leftarrow Y_1$	0.878	$Y_{12} = 0.878Z_1 + 0.229$	16.683
$Y_{2.1} \leftarrow Y_2$	0.881	$Y_{21} = 0.881Z_2 + 0.224$	34.423
$Y_{2.2} \leftarrow Y_2$	0.821	$Y_{22} = 0.821Z_2 + 0.325$	8.1760
$Y_{2.3} \leftarrow Y_2$	0.682	$Y_{23} = 0.682Z_2 + 0.534$	7.8440
$Y_{3.1} \leftarrow Y_3$	0.789	$Y_{31} = 0.789Z_3 + 0.378$	13.126
$Y_{3.2} \leftarrow Y_3$	0.884	$Y_{32} = 0.884Z_3 + 0.218$	28.718
$Y_{4.1} \leftarrow Y_4$	0.894	$Y_{41} = 0.894Z_4 + 0.201$	20.640
$Y_{4.2} \leftarrow Y_4$	0.905	$Y_{42} = 0.905Z_4 + 0.181$	20.640

Table 5: Average Variance Extracted (AVE) latent variables

Variabel laten	AVE
Quality of accounting information systems	0.5236
User satisfaction (X_1)	0.5783
System usage (X_2)	0.6421
Quality of accounting information	0.5556
Time dimension (Y_1)	0.7876
Content dimension (Y_2)	0.6388
Location dimension (Y_3)	0.7019
Form dimension (Y_4)	0.8093

Table 6: Latent variable value composite reliability

Variabel laten	Composite reliability
Quality of accounting information systems (X)	0.8974
User satisfaction (X_1)	0.8455
System usage (X_2)	0.8775
Quality of accounting information (Y)	0.9176
Time dimension (X_1)	0.8812
Content dimension (X_2)	0.8400
Location dimension (X_3)	0.8243
Form dimension (X_4)	0.8946

Table 7: Significance test of influence effectiveness of accounting information systems on the quality of accounting information

Coefficient	t-path	t-critical	Conclusion
0.608	5.257	1.96	Significant

PLS calculation results

Composite reliability: Based on Table 6, it can be concluded that all constructs reliably meet the criteria (composite value reliability above 0.70). This means that the latent variable quality of accounting information system (X) and the quality of accounting information latent variable (Y) have consistently high.

Hypothesis testing: The first hypothesis testing results show that the relationship variables influence the quality of accounting information system with the quality of accounting information indicated by the path coefficient of 0.608 with tcount of 5.257. Scores t-statistic is greater than $t_{critical}$ (1.960) which means that the quality of accounting information systems affect the quality of accounting information (Table 7).

The amount of influence the quality of accounting information system of the quality of accounting information is the amount of $(0.608 \times 0.608 \times 100\%) = 36.9\%$. This means that the quality of accounting information systems give 36.9% influence on the quality of accounting information if there are no other variables are considered.

Based on the results of this research are known causes of system accounting information is not quality because it is the caused by Several factors are as follows: accounting information system available on the company yet flexible, not easy to use, difficult, to access, it is not safe yet well-integrated and often have error/interference (Susanto, 2013). Based on the results of research, it is also

(Table 1) loading factor value of >0.6). Furthermore, based on Table 2, it can be concluded all eight indicators used was appropriate to represent the dimensions of the measurement model variable quality of accounting information systems (values tcount >1.96).

Based on Table 3 shows dimension time, content, location and form and usage system has been appropriately used as a model for the measurement of the variable quality of accounting information (Table 3 loading factor value of >0.6).

Furthermore, based on Table 4, it can be seen indicators, timelines, time period, accuracy, relevance completeness, accessibility, security, clarity and presentation exactly represent the dimensions of the measurement model variable quality of accounting information systems (>1.96).

Discriminan validity:
Discriminant validity results (Table 5) shows the construct has met the minimum value for AVE good construct >0.5.

known accounting information quality in higher education in the city can be said to be inadequate. Results responder indicate that until now there is still a college financial reports (accounting information) is not timely the information content of accounting incomplete accounting information is not safe to use and difficult to access there are presentation of accounting information roomates does not follow the standards/guidelines as well as the format less can understand it by various users. The amount of influence on the quality of accounting information systems accounting information quality is 36.9% with the direction of positive relationships, meaning that with the quality of accounting information systems that will improve the quality of accounting information on the company. Hypothesis testing results showed that the quality of accounting information systems have a significant effect on the quality of accounting information. Upon the acceptance of the research hypothesis, the study reinforces the theory and the results of previous research proposed by Romney and Steinbart (2012, 2015), Hall (2011), Susanto (2013), Wongsim and Gao (2011), Hussein *et al.* (2007), Sajady *et al.* (2008) and Anonymous (2014, 2015).

CONCLUSION

The study concluded that the quality of accounting information systems affect the quality of accounting information. Not to quality accounting information systems at universities in the city due to the accounting information system is not flexible, difficult, to use difficult, to access, it is not safe yet, well-integrated and Often has an error/interference. Based on the research findings in mind also the quality of accounting information on higher education in the city has not adequately because accounting information presented is not timely, incomplete, not safe to use, difficult, to access the presentation did not follow the standards/guidelines and less can be understood by the various users.

SUGGESTIONS

Results of this study was to answer the problems noted earlier in the background of research but there are some things that need to advise in respect of these results shows little effect among value variables studied. As for suggestions that will be presented are as follows.

Practical aspects (troubleshooting): To anticipate the re-emergence of the same problems associated with not quality information systems accounting, universities in bandung recommended in order to: increase user

satisfaction (user satisfaction) and the use of accounting information systems (system usage) by designing an accounting information system that is more flexible has a data processing that is well integrated, secure and easy to use (user friendly).

The availability of quality accounting information can be realized by presenting the accounting information with the content and form (format) in accordance with guidelines/applicable accounting standards.

Theoretical aspects (science development): The results of this study are expected to be used as a reference for further research (replicability) increased confidence in the research that has been done (precision and confidence) as well as the applicability of the results to be widely accepted (generalizability). The suggestions can be put forward for the development of science are: the researchers then expected to add to the sample in order to obtain a more optimal research results.

The researchers then used the research units/locations with different research used in this study thus strengthening support for the linkage theories have been put forward by experts earlier.

The researchers then expected to conduct research using test equipment for statistically different to the one used in this study in order to test a theoretical model that is used whether it will produce the same effect when tested using different statistical testing techniques.

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