

## The Role of Top Management Support in the Quality of Financial Accounting Information Systems

Jufri DARMA

Faculty of Economics, Universitas Negeri Medan, Indonesia  
[jufridarma@unimed.ac.id](mailto:jufridarma@unimed.ac.id)      [jufri\\_darma@yahoo.com](mailto:jufri_darma@yahoo.com)

Azhar SUSANTO

Faculty of Economics and Business, Universitas Padjadjaran, Indonesia  
[azhar.susanto17@unpad.ac.id](mailto:azhar.susanto17@unpad.ac.id)      [azhars2015@gmail.com](mailto:azhars2015@gmail.com)

Sri MULYANI

Faculty of Economics and Business, Universitas Padjadjaran, Indonesia  
[sri.mulyani@unpad.ac.id](mailto:sri.mulyani@unpad.ac.id)      [srinak67@yahoo.co.id](mailto:srinak67@yahoo.co.id)

Jadi SUPRIJADI

Faculty of Math and Science, Universitas Padjadjaran, Indonesia  
[jadi@unpad.ac.id](mailto:jadi@unpad.ac.id)

### Suggested Citation:

Darma, J., Susanto, A., Mulyani, S., Suprijadi, J. 2018. The role of top management support in the quality of financial accounting information systems. *Journal of Applied Economic Sciences*, Volume XIII, Summer, 4(58): 1008 – 1019.

### Abstract:

Researchers previously conducted research on management support and information systems. The aims of this study to investigation the role of top management support in the quality of financial accounting information system in ministries and institutions of Republic of Indonesia. Survey conducted on 270 respondents *i.e.*, users of financial accounting information systems in 76 ministries and institutions. Data is collected using questionnaires. The variance base SEM used to data analysis. The results shown that top management support have significant effect on the quality of financial accounting information systems. The results can be interpreted that top management support plays an important role to realize the quality of financial accounting information system.

**Keywords:** top management support; quality; financial accounting information system.

**JEL Classification:** C02; C12; C83; M41

### Introduction

The quality of information systems is a desirable characteristic of information systems in generating information (DeLone and McLean 1992). The quality of good information systems has several characteristics, among others: reliability, integration and accessibility (Bocij, Greasley and Hickie 2015, Heidmann 2008). In fact, the accounting information systems of various organizations in Indonesia do not have good quality (Susanto 2017a) such as: higher education (Susanto 2016, Puspitawati 2016, Fitrios 2017, Susanto 2017b), financial institutions (Mulyani, Darma, Sukmadilaga 2016, Darma 2017), state-owned enterprises (Ladewi *et al.* 2017), zakat institutions (Nurhayati and Susanto 2017).

The government wants to have a good quality financial accounting information system: reliable, integrated, and accessible. Reliability associated with the ability of information systems to function properly and produce accurate information (Baltzan 2014). Integration related to subsystem integration, system integration and data integration (Valacich and Schneider 2016). Accessibility is related to the ability of information systems to be accessed anywhere and anytime (Avison and Fitzgerald 2006). However, in reality, many ministries and state agencies do not have good quality financial accounting information systems (Widodo 2017, Main 2016, Haryanto 2015).

Management support is a key component of the success of information systems (Langer 2008). Top management support to assure needed resources were provided (Olson 2004). An information system depends on the resources of people, hardware, software, data and network (Marakas and O'Brien 2014). Implementing enterprise information systems requires a lot of resources and management support (Stair and Reynolds 2016).

Based on above phenomena, we investigate the role of top management support in quality of financial accounting information systems in context of ministries and institutions of Republic of Indonesia.

## 1. Literatur review

### 1.1. Top management support

Top management support refers to the willingness of top manager in providing the resources needed to operate the information system successfully (Fortune and Peters 2005). Top management support refers to the extent to which top managers provide all information systems resources (Iñedo 2008). Executive management support is the necessary assistance for projects from the executive level (Langer 2011). Top management support to assure needed resources were provided (Olson 2004). Based on those definitions, we define top management support as the support of top management to provide all resources that needed to operate financial accounting information systems properly.

The information systems require five resources: human, hardware, software, network communication and data (Bocij, Greasley and Hickie 2015). The management backing also ensures that a systems project receives sufficient funds and resources to be successful (Laudon and Laudon 2016). Top management support for information systems is to provide the main resources of financial and human resources (Palvia and Palvia 2003). Top management support: top management provides adequate financial, material and human resources for effective system implementation (Boonstra 2013). Top management support related to resources is the provision of necessary funds for hardware, software and others (Dong, Neufeld and Higgins 2009). Top management refers to the extent to which top managers provide assistance and orders in the selection of equipment, hardware, software (Compean and Higgins 1995). Top management support dimensions used in this research namely: providing human resource, providing hardware, providing software, and providing fund as needed for operate of financial accounting information systems. An explanation of each of top management support dimensions as follows:

- 1 Providing human resources as needed. The human resources include users, developers, maintainers and operators of information systems (Bocij, Greasley and Hickie 2015). The human resources of information systems are planner, organizers, acquirer, implementer, communicator, supporter, monitors, and evaluator of information systems (Gelinis and Dull 2008). The human resources information systems include technical personnel and managers (Palvia and Palvia 2003). The human resources in information systems, such as managers, data input officers and technical support personnel (Bocij, Greasley and Hickie 2015). Providing human resources as needed in this study means top management provides the human resources as needed to operate the financial accounting information system. The indicator providing of human resource as needed *i.e.*, the suitability of the data entry personnel and technical support personnel to needs;
- 2 Providing hardware as needed. The hardware is a computer hardware and communications network hardware (Considine *et al.* 2010). The hardware is a physical component of a computer that performs input, processing, storage, and output of computer activities (Susanto 2013). The communication networks are required to transfer data / information (Stair and Reynolds 2016). Providing hardware as needed in this study means top management provides software as needed to operate the financial accounting information system. The indicator providing of hardware as needed *i.e.*, the suitability of computer hardware and network communications network to needs;
- 3 Providing software as needed. The software is an accumulation of instructions for running a computer (Susanto 2013). The software is a computer program written in a programming language or code that instructs the operation of the computer (Considine *et al.* 2010). The software refers to a program or set of instructions that command the computer to perform certain tasks (Bocij, Greasley, Hickie 2014). The software is a computer program that regulates the operation of the computer (Valacich and Schneider 2016). The software is a generic term for various programs used to operate a computer to perform certain tasks (Marakas and O'Brien 2014). Software is instructions for hardware to do certain tasks (Haag, Cummings and McCubbrey 2005). Group computer software into application software and operating system software. Application software can be divided into two types: general purpose application program and special purpose application program. While the operating system software can be differentiated into: system management programs and system development programs (Marakas and O'Brien 2014). Providing software as needed in this study means top management provides software as needed to operate the financial accounting information system. The indicator providing of software as needed *i.e.*, suitability of operating systems software and application software to needs;
- 4 Providing funds as needed. The top management is expected to provide support in the form of budget allocations or funds that meet the needs of the information systems department (Palvia and Palvia 2003).

Top management is expected to commit to provide sufficient funds for the financing of hardware, software, and training of information systems operators (Dong, Neufeld and Higgins 2009). Providing fund as needed in this study means top management provides budget as needed to operate the financial accounting information system. The indicators providing of fund as needed *i.e.*, suitability of budget amount for maintenance and replacement hardware and software, and for training of entry data staff.

## 1.2. Quality of Financial Accounting Information System

Accounting information system refers to a collection of resources to process financial and nonfinancial data into financial information (Bodnar and Hopwood 2014). Accounting information system as a set of interdependent components harmoniously to process data into information and distribute that information to support decision making and control in an organization (Susanto 2015). Accounting information system is a type of information system that functions to process data into information for decision makers (Romney and Steinbaart 2015). Accounting information system refers to a system that processes financial transactions into financial information to make decisions (Richardson, Chang and Smith 2014). An accounting information system is a set processing procedures data into information for its users (Bagrahoff, Simkin and Norman 2010). The system of collecting and processing transaction data is known as the accounting information system (Kimmel, Weygandt and Kieso 2011). Based on those definitions, we define the accounting information system as a collection of resources that work in harmony to process of financial data into financial information and distribute it to users.

Three types of accounting information systems are: financial accounting information systems, cost accounting information systems and management accounting information systems (Gupta 2011). The financial accounting information system is a system that aims to record, process and report past transactions in the financial statements in accordance with generally accepted principles (Boockholdt 1999). Financial accounting information system is an information system that provides information for the interests of external parties (McLeary 2000). Based on those definitions, we define a financial accounting information system as a collection of resources that work in harmony to process of financial data into financial information in the financial statements based on accepted accounting principles and is intended for the benefit of external parties.

Quality in the context of information systems describes the extent to which the product or service of the information system meets certain requirements (Mandl 2008). Quality means the ability of a product (including service) to meet or exceed customer expectation (Stair and Reynolds 2010). Quality of information system refers to a desirable of characteristics of information system in produce (DeLone and McLean 1992). Information system quality which is related to the quality of IS products (Pham Thi and Helfer 2009). Based on above definition, in this study we define the quality of financial accounting information system is a characteristic that describes ability of financial accounting information system in generating financial accounting information that meets user expectations.

Characteristics of a good quality information system easy to use, data functioning correctly, quickly in processing and presenting data in different screen display; reliable; secure; integrated with other systems (Bocij Greasley and Hickie 2015). The components of quality of information systems include: availability, integration and reliability (Avison and Fitzgerald 2006). Characteristics of quality of business intelligence system include: reliability, integration and accessibility (Mulyani, Darma and Sukmadilaga 2016, Darma 2017). System quality dimensions include: integration, flexibility, accessibility, formalization, and media richness (Heidmann 2008). System quality dimensions: reliability, flexibility, integration, accessibility, and timeliness (Shyong Ong, Yuh Day and Lian Hsu 2009).

The quality of financial accounting information system dimensions in this study namely reliability, integration and accessibility of financial accounting information system.

- 1 Reliability of financial accounting information system. Reliability is the system can provide the information needed (Bocij, Greasley and Hickie 2015). Reliability: the system functions correctly and produce accurate information (Baltzan 2014). Reliability refers to information systems able to function properly and provide accurate information (Haag, Cummings and McCubbrey 2005). Reliability measures the dependability of the system's operation (Shyong Ong, Yuh Day and Lian Hsu 2009). The indicators of reliability of financial accounting information system in this study *i.e.*, ability to functioning properly and produce accurate information.
- 2 Integration of financial accounting information system. Systems integration includes both linking the different modules of a new system together and linking the new system with existing systems (Bocij, Greasley and Hickie 2015). System integration: connectivity, compatibility, integrating subsystems and systems. System integration-connecting separate information systems and data (Bocij, Greasley, Hickie

2014). Integration allow separate systems to communicate with each other (Valacich and Schneider 2016). The indicator of integration of financial accounting information systems in this study *i.e.*, integration subsystem, integration system with other systems and integration of data.

- 3 Accessibility of financial accounting information system. System accessibility is a user accessible information system (Bocij, Greasley and Hickie 2015). Accessibility refers to information systems accessible, viewable, or user-initiated when needed by the user (Baltzan 2014). Availability: whether it is accessible, when and where required (Avison and Fitzgerald). The indicators of accessibility of financial accounting information system in this study *i.e.*, ability of financial accounting information systems to be accessed whenever and wherever required.

### 1.3. Theoretical framework and hypothesis

Management support will lead to increase system quality (Zaied 2012). The successful implementation of information systems requires a lot of support from top management (Laudon and Laudon 2016). Successful maximization of information systems requires support from top management (Bocij, Greasley and Hickie 2015). Support from top management is a key factor that is often proven for successful implementation of information systems (Olson 2015).

Resources needed in the implementation of accounting information systems include: human resources, hardware, software and funds. Management support ensures that the information system receives sufficient funds and resources for its success (Laudon and Laudon 2016). Top management support for resources is the provision of funds necessary for the procurement of hardware, software and others (Dong 2008). Top management support is top management providing adequate financial, material and human resources for effective implementation of information systems (Boonstra 2013)

Several previous research results show the effect of top management support on information systems. Support from top management is essential for effective implementation of information systems (Thong, Sing Yap and Raman 1996). Top management support is positively related to the effectiveness of information systems (Seliem *et al.* 2003). Top management support relates directly or indirectly to the performance of information systems (Ragu Nathan *et al.* 2004). Top management support is significantly related to the quality of information systems (Husein *et al.* 2007). Top management support influences the use of management accounting information systems (Gil and Hartman 2007). The level of management support is related to the level of quality of information systems (Medina and Chaparro). Top management support has the most powerful influence on information systems (Rouibah *et al.* 2009). Management support very helpful to improve the quality of information systems (Zaied 2012). Top management support is a key factor for the success of information systems (Chen, Zhao and Wang 2012). One of the factors consistently found to influence the success of information systems is top management support (Petter, DeLone and McLean 2013). Top management support has a strong effect on the operation of information systems (Khan, Lederer and Mirchandani 2013). Top management support has an effect on information systems (Al-Mamary, Shamsudin and Aziati 2014). Support from top management is an important point for the success of corporate information systems (Shao, Feng and Hu 2015).

Based on explanation and results of previous research above, so can be concluded that top management support affects the quality of financial accounting information system. The model of this research can be seen in Figure 1.

Figure 1. The research model



Based on the theoretical framework above, the hypothesis to be tested in this study is top management support have significant effect on the quality of financial accounting information systems.

## 2. Methodology

This study uses explanatory survey method. The population in this study is 86 units of Reporting & Accounting in Ministries and Institutions of the Republic of Indonesia. The sampling technique used is simple random sampling so that obtained 76 units. Respondents in this study are users of financial accounting information systems consists

chief of financial bureau, chief of financial officer, head of accounting and reporting, and staff of data entry. The instrument that is used for the collection data is a questionnaire. Three hundred and four questionnaires are distributed to 76 ministries and institutions, 270 questionnaires are returned and it is used in the statistical analysis. The questionnaires using Likert scale on five choices of responses ranging from “does not/never” to “very/always”. The questionnaire includes two variable namely: top management support (TMS) and quality of financial accounting information system (QFAIS). Top management support consists of four dimensions namely providing of human resources (TMS1), hardware (TMS2), software (TMS3), and fund (TMS4) as needed. The dimensions of providing of human resources as needed consists two indicators ie the suitability of the data entry personnel (TMS11) and technical (TMS12) to needs.

Further, the dimensions of providing of hardware as needed consists two indicators *i.e.*, the suitability of computer hardware (TMS21) and communications network hardware (TMS22) to needs. Furthermore, the dimensions of providing of software as needed consists two indicators ie the suitability of the operation systems software (TMS31) and application software (TMS32) to needs. While the providing of fund as needed consists three indicators ie suitability of the budget amount for: maintenance and replacement hardware (TMS41), software (TMS42), and training of data entry personnel (TMS43) to needs. The quality of financial accounting information system consists of three dimensions namely reliability of system (QFAIS1), integration of system (QFAIS2) and accessibility of system (QFAIS3). The dimensions of reliability of system consists two indicators *i.e.* the ability of systems to: function properly (QFAIS11) and produce accurate information (QFAIS12). Further, the dimensions of integration of system consists three indicators *i.e.*, the integration of subsystem (QFAIS21), integration system with other systems (QFAIS22), and integration of data (QFAIS23). While the dimensions of accessibility of system consists two indicators *i.e.*, the ability to access systems: anytime (QFAIS31) and anywhere (QFAIS32). All causal relationships between indicators and constructs in this study use a reflective measurement model. The method of analysis used structural equation modeling with variance based approach by using SMART-PLS, while hypothesis testing used t-test.

### 3. Finding and discussion

#### 3.1. Demography of respondents

Based on the answers of the respondents on questions relating to gender, age, education level, and educational background, so the demographics of respondents can be seen in Table 1 below:

Tabel 1. Demographics of respondents

	Frequency	Percentage
Gender:		
Male	154	57,04%
Female	111	41,11%
Not Identified	5	1,85%
Amount	270	100,00%
Age:		
20-29	32	11,85%
30-39	118	43,70%
40-49	42	15,56%
50-59	33	12,22%
Not Identified	45	16,67%
Amount	270	100,00%
Education Level:		
Diploma	20	7,41%
Bachelor:	155	57,41%
Master	85	31,48%
Doctorate	4	1,48%
Not Identified	6	2,22%
Amount	270	100,00%
Educational Background:		
Accounting	158	58,52%
Economic But Not Accounting	52	19,26%
Not Economy	48	17,78%
Not Identified	12	4,44%
Amount	270	100,00%

Table 1 above shows that based on gender of male dominated respondents as much as 154 respondents or 57.04%, based on age of respondents dominated age between 30-39 years that is as much as 118 respondents or 43.70%, based on education level most respondents are bachelor that is as much as 155 respondents or 57.41%, and based on the educational background of most respondents background accounting that is as much as 158 respondents or 58.52%.

### 3.2. Descriptive of variable

Two hundred seventy questionnaires from user of financial accounting information systems at 76 Ministries and Institutions of Republic of Indonesia (78.49%) were returned and completed. A summary of respondents' responses on each dimension and indicators of top management support (TMS) and quality of financial accounting information systems (QFAIS) is presented at Table 2 Summary of respondents' responses on variable below.

Table 2 Summary of respondent responses on variable

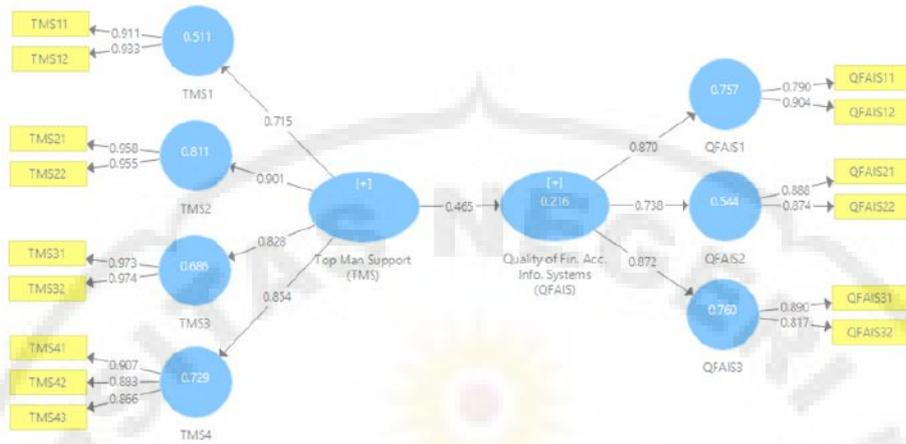
No	Dimensions and indicators of TMS	Mean Score	Category	Dimensions and indicators of QFAIS	Mean Score	Category
1.	Providing human resources as needed	3,21	Sufficient	Reliability	3,67	Sufficient
	Suitability of entry data personnel	3,27	Sufficient	Ability to functioning properly	3,74	Sufficient
	Suitability of technical personnel	3,14	Sufficient	Ability to produce accurate information	3,59	Sufficient
2.	Providing hardware as needed	3,79	Sufficient	Integration	3,46	Sufficient
	Suitability of computer hardware	3,77	Sufficient	Integration subsystems	3,70	Sufficient
	Suitability of communication network hardware	3,81	Sufficient	Integration systems with other systems	3,13	Sufficient
3.	Providing software as needed	3,81	Sufficient	Integration of Data	3,56	Sufficient
	Suitability operating system software	3,81	Sufficient	Accessibility	3,54	Sufficient
	Suitability of application software	3,81	Sufficient	Ability to access anytime	3,69	Sufficient
4.	Providing fund as needed	3,27	Sufficient	Ability to access from anywhere	3,38	Sufficient
	Suitability of budget amount for maintenance and replacement of hard	3,36	Sufficient			
	Suitability of budget amount for maintenance and replacement of soft	3,20	Sufficient			
	Suitability of budget amount for training of entry data personnel	3,23	Sufficient			
Mean score (Actual)		3,52	Sufficient	Mean score (Actual)	3,56	Sufficient
Mean score (Ideal)		5,00		Mean score (Ideal)	5,00	
Gap		1,48		Gap	1,44	

Inter-quartile range (IQR) was used to categorize the respondents' responses (Susanto 2015). The category of respondents' responses is: mean score: 1,00-1,99 (poor), 2,00-2,99 (less), 3,00-3,99 (sufficient) and 4,00-5,00 (good).

### 3.3. Evaluation of measurement model

The reflective measurement model is considered to meet validity if the extracted average variance (AVE) is higher than 0.5 and the outer load indicator on the construct must be higher than all the cross loads with the other constructs. The reflective measurement model is considered reliable if the composite reliability and outer load indicator is higher than 0.708 (Susanto 2016). The first stage of evaluation of first order on outer model, the outer loading of QFAIS23 indicator is below 0.7 so it must be eliminated from the model. The second stage of evaluation first order on outer model, we found that the outer loading of all items used to measure each dimension of the top management support and quality of financial accounting information systems is above 0.7 as shown Figure 2.

Figure 2. Path diagram



Further, the summary of composite reliability (CR) and average variance extracted (AVE) as shown in Table 3.

Table 3. The summary of composite reliability and average variance extracted

Dimensions	Items	CR	AVE
Providing of Human Resources as needed (TMS1)	TMS11	0,919	0,850
	TMS12		
Providing of Hardware as needed (TMS2)	TMS21	0,955	0,914
	TMS22		
Providing of Software as needed (TMS3)	TMS31	0,973	0,948
	TMS32		
Providing of Fund as needed (TMS4)	TMS41	0,916	0,784
	TMS42		
	TMS43		
Reliability (QFAIS1)	QFAIS11	0,837	0,715
	QFAIS12		
Integration (QFAIS2)	QFAIS21	0,874	0,776
	QFAIS22		
Accessibility (QFAIS3)	QFAIS31	0,844	0,730
	QFAIS32		

The results of outer loading and cross loading can be seen in Table 4 below:

Table 4. Outer loading and cross loading

	QFAIS1	QFAIS2	QFAIS3	QFAIS	TMS1	TMS2	TMS3	TMS4	Top Man Support (TMS)
QFAIS11	<b>0,790</b>			0,593					
QFAIS12	<b>0,904</b>			0,852					
QFAIS21		<b>0,888</b>		0,667					
QFAIS22		<b>0,874</b>		0,632					
QFAIS31			<b>0,890</b>	0,825					
QFAIS32			<b>0,817</b>	0,651					
TMS11					<b>0,911</b>				0,611
TMS12					<b>0,933</b>				0,702
TMS21						<b>0,958</b>			0,876
TMS22						<b>0,955</b>			0,846
TMS31							<b>0,973</b>		0,801
TMS32							<b>0,974</b>		0,811
TMS41								<b>0,907</b>	0,768
TMS42								<b>0,883</b>	0,772
TMS43								<b>0,866</b>	0,727

Note: QFAIS - Quality of Fin. Acc. Info. Systems

Based on the data in Table 3 and Table 4 average variance extracted above 0.5 and an indicators outer loadings on a construct higher than all its cross loadings with other constructs, it's concluded that the reflective measurement model is valid. Likewise, based on data in Table 3 and Figure 2, composite reliability and all indicator outer loading higher than 0.708, it's concluded that the reflective measurement model is reliable.

### 3.4. Testing of hypothesis

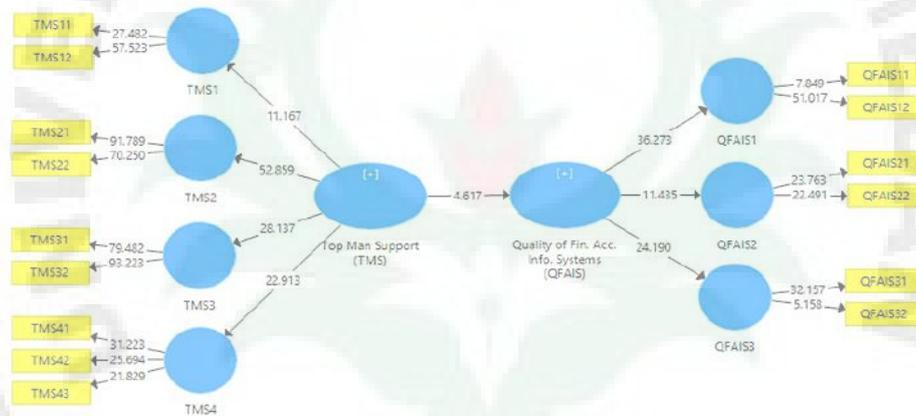
The hypothesis to be tested in this study are:

$H_0$ : The top management support has not significant effect on the quality of financial accounting information systems.

$H_a$ : The top management support has significant effect on the quality of financial accounting information systems.

$H_0$  is accepted if  $t$ -Statistics is smaller than  $t$ -Table in significance level 5% (1.96). The Path diagram (PLS Bootstrapping) can be seen at Figure 3 below:

Figure 3. Parth diagram (PLS-bootstrapping)



Based on data in Figure 3, we found that  $t$ -Statistics is greater than  $t$ -Table ( $4,617 > 1,96$ ). This means that  $H_0$  is rejected or in other words the top management support have significant effect on quality of financial accounting information system. The path coefficient between top management support and quality of financial accounting information systems is 0.465, coefficient determination ( $R^2$ ) is 0.216. this means that top management support able to explain the quality of financial accounting information system equal to 21.6%, while the remaining 78.4% explained other factors not included in this research model.

## 4. Discussion

Based on the result of hypothesis testing, we found the empirical evidence in the context of ministries and institutions of Republic of Indonesian that top management support has a significant effect on the quality of financial accounting information systems.

These empirical evidence confirms the theoretical framework that to maximize quality of information systems required top management support (Avison, Fitzgerald 2006, Gil, Hartmann 2007). This empirical evidence also supports the results of previous studies which suggest a significant positive effect of top management support with information systems (Olson 2015, Palvia 2003, Petter, DeLone, McLean 2013, Pham Thi, Helfert 2009, Puspitawati 2016, Ragnathan, Apigian, Qiang Tu 2004, Richardson, Chang, Smith 2013, Romney, Steinbart 2015, Rouibah, Hamdy, Al-Enezi 2009, Sekaran, Bougie 2016, Seliem, Ashour, Khalil, Millar 2003, Shao, Feng, Hu 2016, Shyong, Yuh, Wen-Lian 2009, Stair, Reynolds 2015).

This evidence indicates that the lack of quality of financial accounting information system is caused by the ineffectiveness of top management support. The result of this study can be explained below.

As shown in left side of Table 2, the mean score of the respondents' responses to the top management support is 3.52 (70.4%) or sufficient category. When compared with the ideal score top management support (5.00), there is a gap of 1.48 or 29.6% equivalent. This gap indicates that top management in ministries and institutions of the Republic of Indonesia has not been able to provide resources as much as 29.6% required financial accounting information systems. The highest response was given to the providing software as needed is 3.81 or sufficient category; providing hardware as needed is 3.79 or sufficient category; providing fund as needed is 3.27 or sufficient

category, and the lowest response was given to providing human resources as needed is 3.21 or sufficient category too. Further, we analyze there are three indicators that contribute most to the gap *i.e.*, unsuitable of technical personnel is 1.86 or 36.80%; unsuitable budget amount for maintenance and replacement for software is 1.8 or 36%, and unsuitable of budget amount for training of data entry personnel is 1.77 or 35.4%.

Problems (gaps) that occur in the top management support has implications on the quality of financial accounting information systems. The right side of Table 2 shows the respondents' responses to the quality of financial accounting information system. The mean score of the respondents' responses to the quality of financial accounting information systems is 3.56 (71.20%) or sufficient category. When compared with the ideal score (5.00), there is a gap of 1.44 or 28.80% equivalent. This gap indicates that financial accounting information systems in the ministries and institutions of republic of Indonesia as much as 28.8% has been not: reliable, integration and accessible. The highest response was given to the reliability is 3.67 or sufficient category; the accessibility is 3.54 or sufficient category and the lowest response was given to the integration is 3.46 or sufficient category too. Furthermore, we analyze there are three indicators that most contribute to the gap *i.e.*, integration system with other system is 1.87 or 37.40%; ability to access anywhere is 1.62 or 32.4% and integration of data is 1.46 or 29.2%.

Problems related to top management support are technical personnel unsuitable, budget amount for maintenance and replacement of software and training for entry data personnel unsuitable. This problem can be solved by:

- increase the number of technical personnel according to system maintenance needs;
- increase the budget amount for maintenance and replacement of software;
- increase the amount of budget for training data input officers.

Further, problems related to the quality of financial accounting information systems are the systems has been not well integrated with other systems, un-accessible anywhere, and data not integration. This problem can be solved by:

- evaluation of financial accounting information system resources: human resources, hardware, software, and funds currently used to determine the level of conformity to current needs taking into account future needs;
- based on the evaluation results, management must improve all types of resources in accordance with the need for financial accounting information system can operate with better quality.

## Conclusion

This study aims to examine the role of top management support on the quality of financial accounting information system. Results of hypothesis testing shown the top management support have significant effect on the quality of financial accounting information system. This results can be interpreted that top management support plays an important role to realize the quality of financial accounting information system.

## References

- [1] Al-Mamary, Y.H., Shamsuddin, A., Aziati, A.H.N. 2014. Key factors enhancing acceptance of management information systems in Yemeni companies. *Journal of Business and Management Research*, 5:108-111. DOI: 10.5923/j.economics.20130301.06
- [2] Avison, D. and Fitzgerald, G. 2006. *Information Systems Development—Methodologies. Techniques and Tools*. New York: The McGraw-Hill. ISBN: 0077114175, 656 pp.
- [3] Bagranoff, N.A., Simkin, M.G. and Norman, C.S. 2010. *Core Concepts of Accounting Information Systems*. USA: John Wiley & Sons, Inc., ISBN-10: 0470045590, 528 pp.
- [4] Baltzan, P., Philips A. 2015. *Business Driven Information System*. New York: McGraw-Hill Education, 512 pp.
- [5] Bocij, P., Greasley, A. and Hickie, S. 2014. *Business Information Systems: Technology, Development and Management for the E-Business*. London: Pearson Education Ltd., ISBN-10: 0273736450, 704 pp.
- [6] Bodnar, G.H. and Hopwood, W.S. 2014. *Accounting Information Systems*. Essex, England, London: Pearson Education, Ltd., ISBN: 9781292027234, 454 pp.
- [7] Boockholdt, J.L. 1999. *Accounting Information Systems*. USA: McGraw-Hill Companies, Inc., 762 pp.

- [8] Boonstra, A. 2013. How do top managers support strategic information system projects and why do they sometimes withhold this support. *International Journal of Project Management*, 31: 498–512. Available at: <https://doi.org/10.1016/j.ijproman.2012.09.013>
- [9] Chen, X.C., Zhao Z. and Wang, Y.F. 2012. The Effects of Top Management Support on Information System Success: Manufacturing Industry Cases. *Applied Mechanics and Materials*, 157-158: 344-348. Available at: <https://doi.org/10.4028/www.scientific.net/AMM.157-158.344>
- [10] Compeau, D.R. and Higgins, C.A. 1995. Computer Self-Efficacy: Development of a measure and initial test. *MIS Quarterly*, 19 (2): 189-211. DOI: 10.2307/249688
- [11] Considine, B., Parkes, A., Olesen, K., Speer, D. and Lee, M. 2010. *Accounting Information System*. Australia: John Wiley & Sons. Available at: [https://www.gu.se/digitalAssets/1362/1362778\\_research-programme-ais.pdf](https://www.gu.se/digitalAssets/1362/1362778_research-programme-ais.pdf)
- [12] Darma, J. 2017. How the Clarity of Business Vision Affect the Quality of Business Intelligence Systems and It's Impact on the Quality of decision Making (Evidence from North Sumatera-Indonesia). *Journal of Engineering and Applied Science*. 12 (9): 2461-2466. DOI: 10.3923/jeasci.2017.2461.2466. URL: Available at: <http://medwelljournals.com/abstract/?doi=jeasci.2017.2461.2466>
- [13] DeLone, W.H., McLean, E.R., Petter S. 2013. Information System Success: The Quest for the Independent Variable. *Journal of Management Information System* 29 (4): 7-62. Available at: <https://pdfs.semanticscholar.org/a041/45f1ca06c61f5985ab22a2346b788f343392.pdf>
- [14] Dong, L., Neufeld, D. and Higgins, C. 2009. Top management support of enterprise systems implementations. *Journal of Information Technology*, 24: 55–80. DOI: <https://doi.org/10.1057/jit.2008.21>
- [15] Fitrius, R. 2017. Leadership Behavior and Accounting Information System (An Empirical Study at the Hospitals in Riau Province-Indonesia). *Journal of Engineering and Applied Sciences*, 12(22): 6062-6068. Available at: <http://medwelljournals.com/abstract/?doi=jeasci.2017.6062.6068>
- [16] Fortune, J. and Peters, G. 2005. *Information Systems Achieving Success by Avoiding Failure*. England: John Wiley & Sons. ISBN-10: 0470862556, 234 pp.
- [17] Gelinas, Jr, U.J. and Dull, R.B. 2008. *Accounting Information System*. Canada: Thomson South Western. ISBN-10: 0324378831, ISBN-13: 9780324378832, 658 pp.
- [18] Gil, D.N. and Hartmann, F. 2007. Management accounting systems, top management team heterogeneity and strategic change. *Accounting, Organizations and Society*, 32: 735–756. Available at: [http://www.sciencedirect.com/science/article/pii/S0361-3682\(06\)00078-X](http://www.sciencedirect.com/science/article/pii/S0361-3682(06)00078-X)
- [19] Gupta, H. 2011. *Management Information Systems*. Hitesh Gupta, ISBN-10: 9381335052, ISBN-13: 9789381335055, 421 pp.
- [20] Haag, S., Cummings, M. and McCubbrey, D.J. 2012. *Management Information System for the Information Age*. New York: McGraw Hill, ISBN-10: 007337685X, 608 pp.
- [21] Hair, J.F., Hult, G.T.M., Ringle, C.M., and Sarsted, M. 2013. *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Los Angeles: Sage Publications, Inc. ISBN: 1452217440, 328 pp.
- [22] Haryanto, S. 2015. *Menteri Agama Inginkan Sistem Informasi Seluruh Satker Terintegrasi*. Bimas Islam Kemenag. Available at: <http://bimasislam.kemenag.go.id/post/berita/menteri-agama-inginkan-sistem-informasi-seluruhsatker-terintegrasi/>
- [23] Heidmann, M. 2008. *The Role of Management Accounting Systems in Strategic Sensemaking*. Germany: Deutscher Universitäts-Verlag Wiesbaden, ISBN: 978-3-8349-9633-6, 229 pp.
- [24] Husein, R., Abdul Karim, N.S., Mohamed, N. and Ahlan, A.R. 2007. The Influence Organizational Factors on Information Systems Success in E-Government Agencies in Malaysia. *The Electronic Journal on Information System in Developing Countries*, 29 (1): 1-17. DOI: <https://doi.org/10.1002/j.1681-4835.2007.tb00195.x>
- [25] Ifinedo, P. 2008. Impact of Business Vision, Top Management Support and External Expertise on ERP Success Business Process. *Management Journal*, 14 (4): 551-568. DOI: <https://doi.org/10.1108/14637150810888073>
- [26] Khan, S.A., Lederer, A.L. and Mirchandani, D.A. 2013. Top Management Support, Collective Mindfulness, and Information Systems Performance. *Journal of International Technology and Information Management*, 22(1): 95-122. Available at: <http://scholarworks.lib.csusb.edu/jitim/vol22/iss1/6>

- [27] Kimmel, P.D., Weygant, J.J. and Kieso, D.E. 2012. *Financial Accounting: Tools for Business Decision Making*. USA: John Wiley & Sons, ISBN-10: 111834426X, 880 pp.
- [28] Ladewi, Y., Susanto, A., Mulyani, S. Suharman, H. 2017. Effect of Organizational Commitment on the Quality of Accounting Information Systems and their Impact on the Quality of Accounting Information. *Journal of Engineering and Applied Sciences*, 12 (24): 7649-7655. Available at: <http://medwelljournals.com/abstract/?doi=jeasci.2017.7649.7655>
- [29] Langer, A.M. 2008. *Analysis and Design of Information Systems*. London: Springer-Verlag, Ltd. ISBN: 978-1-84628-655-1, 418 pp.
- [30] Langer, A.M. 2010. *Information Technology and Organizational Learning: Managing Behavioral Change through Technology and Education*, CRC Press;. ISBN-10: 0415875838, 384 pp.
- [31] Laudon, K.C. and Laudon, J.P. 2017. *Management Information System: Managing the Digital Firm*. London: Pearson Education, Ltd. ISBN-10: 0134639715, 590 pp.
- [32] Mandl, T. 2008. *Automatic Quality Assessment for Internet Pages*. in Munoz, C.C., Moraga, A. and Piattini, M. (Eds). *Handbook of Research on Web Information Systems Quality*. New York.
- [33] Marakas, G.M. and O'Brien, J.A. 2014. *Introduction To Information Systems*. New York, NY: The McGraw-Hill Companies, Inc. ISBN-10: 0073376884, 768 pp.
- [34] McLeary, F. 2000. *Accounting and Its Business Environment*. Landsdowne Juta & Co, Ltd.
- [35] Medina, M.Q. and Chaparro P.J. 2008. The Impact of the Human Element in the Information Systems Quality for Decision Making and User Satisfaction. *Journal of Computer Information Systems*, 48 (2): 44-52. Available at: <https://www.tandfonline.com/doi/abs/10.1080/08874417.2008.11646008>
- [36] Mulyani, S., Darma, J., Sukmadilaga, C. 2016. The Effect of Clarity of Business Vision and Top Management Support on the Quality of Business Intelligence Systems: Evidence from Indonesia. *Asian Journal of Information Technology*, 15 (16): 2958-2964. Available at: <http://medwelljournals.com/abstract/?doi=ajit.2016.2958.2964>
- [37] Nurhayati, N. and Susanto, A. 2017. The Influence of Transformational Leadership on the Success of Accounting Information Systems Implementation (Survey on National Zakat Management Institution of West Java). *Journal of Engineering and Applied Sciences*. 12. (17): 4534-4539. DOI: 10.3923/jeasci.2017.4534.4539
- [38] Olson, D. 2015. *Information System Project Management*. New York: Business Expert LLC. ISBN-10: 1631571222, 186 pp.
- [39] Olson, D.L. 2004. *Introduction to Information System Project Management*. New York: The McGraw-Hill Companies, Inc. ISBN-10: 0072824026, ISBN-13: 9780072824025, 314 pp.
- [40] Palvia, P.C. 2003. *Information System Planning in Context: In Global Perspective*. Galliers, D.R., Leidner, D.E. "Strategic Information Management". London: Butterworth-Heinemann.
- [41] Petter, S., DeLone, W., McLean, R.E. 2013. Information System Success: The Quest for the Independent Variables. *Journal of Management Information Systems*, 29 (4): 7-61. DOI: 10.2753/MIS0742-1222290401
- [42] Pham, Thi, T.T. Helfert, M. 2009. *An Information System Quality Framework Based on Information System Architectures*. In: Barry, C., Conboy, K., Lang, M., Wojtkowski, G. and Wojtkowski, W. (Eds). "Information Systems Development. Challenges in Practice, Theory and Education". Volume 2, New York: Springer Science+Business Media, LLC.
- [43] Puspitawati, L. 2016. The Analysis of Effectiveness Measurement in Accounting Information Systems through Competence Factor of Information System User. Research on Higher Education in Bandung. *International Journal of Applied Business and Economic Research*, 14 (1): 313-339
- [44] Ragunathan, B.S., Apigian, C.H., Ragunathan, T.S. and Qiang T. 2004. A Path Analytic Study of The Effect of Top Management Support for Information System Performance. OMEGA. *International Journal of Management Science*, 32: 459-471.
- [45] Richardson, V.J., Chang, C.J., and Smith, R. 2013. *Accounting Information System*. New York: McGraw-Hill Education. ISBN-10: 0078025494, 384 pp.

- [46] Romney, M.B. and Steinbart, P.J. 2015. *Accounting Information System, Global Edition*, London: Pearson Education, Ltd. ISBN-10: 1292061081, ISBN-13: 9781292061085, 736 pp.
- [47] Rouibah, K., Hamdy, H.I., and Al-Enezi, M.Z. 2009. Effect of Management Support, Training, and User Involvement on System Usage and Satisfaction in Kuwait. *Industrial Management and Data Systems*, 109 (3): 338-356. Available at: <https://doi.org/10.1108/02635570910939371>
- [48] Sekaran, U. and Bougie, R. 2016. *Research Methods for Business: A Skill-Building Approach*. United Kingdom: Jhon Wiley & Sons, Ltd. ISBN-10: 1119165555, ISBN-13: 9781119165552, 448 pp.
- [49] Seliem, A.A.M., Ashour, A.S., Khalil, O.E.M. and Millar, S.J. 2003. The Relationship of Some Organizational Factors to Information Systems Effectiveness: A Contingency Analysis of Egyptian Data. *Journal of Global Information Management*, 11(1): 40-71. DOI: 10.4018/jgim.2003010103
- [50] Shao, Z., Feng, Y. and Hu, Q. 2016. Effectiveness of top management support in enterprise systems success: a contingency perspective of fit between leadership style and system life-cycle. *European Journal of Information Systems*, 25: 131-153
- [51] Shyong, O.C., Yuh, D.M. and Wen-Lian, H. 2009. The measurement of user satisfaction with question answering systems. *Information & Management*, 46: 397-403. DOI:10.1016/j.im.2009.07.004
- [52] Stair, R.M., and Reynolds, G.W. 2015. *Fundamentals of Information Systems*. USA: Cengage Learning, ISBN-10: 1305082168, 560 pp.
- [53] Susanto, A. 2015. What Factors Influence the Quality of Accounting Information? *International Journal of Applied Business and Economic Research*, 13(6): 3995-4014. Available at: [www.serialsjournals.com/serialjournalmanager/pdf/1457760294.pdf](http://www.serialsjournals.com/serialjournalmanager/pdf/1457760294.pdf)
- [54] Susanto, A. 2016. The Empirical Testing How the Quality of Accounting Information Systems Affected by Organizational Culture. Research at Universities in Bandung. *Asian Journal of Information Technology*, 15(6): 1098-1105. DOI: 10.3923/ajit.2016.1098.1105. Available at: <http://medwelljournals.com/abstract/?doi=ajit.2016.1098.1105>
- [55] Susanto, A. 2017a. How the Quality of Accounting Information System Impact on Accounting Information Quality (research on Higher Education in Bandung), *Journal of Engineering and Applied Sciences*. 12 (14): 3672-3677. DOI: 10.3923/jeasci.2017.3672.3677
- [56] Susanto, A. 2017b. The Influence of User Involvement on Accounting Information System Quality. *Journal of Engineering and Applied Sciences*, 12(23): 7144-7149. DOI: 10.3923/jeasci.2017.7144.7149. Available at: <http://medwelljournals.com/abstract/?doi=jeasci.2017.7144.7149>
- [57] Thong, J.Y.L., Sing Y. C. and Raman, K.S. 1996. Top Management Support, External Expertise and Information Systems Implementation in Small Businesses. *Information Systems Research*, 7 (2): 248-267. Available at: <https://doi.org/10.1287/isre.7.2.248>
- [58] Utama, M.S. 2016. *Situs DJP Sulit Diakses*, E-Filing SPT Online Terkendala Berita Kepo. Available at: <http://www.beritakepo.com/2016/03/situs-djp-sulit-diakses-e-filing-spt.html/>
- [59] Valacich, J. and Schneider, C. 2015. *Information Systems Today: Managing in the Digital World, Student Value Edition*, England: Pearson Education, Ltd. ISBN-10: 0133940470, 528 pp.
- [60] Widodo, J. 2017. *Sistem Informasi Perpajakan: Presiden Minta Tak Menyulitkan WP*. Available at: <http://semarang.bisnis.com/read/20170620/2/94910/sistem-informasi-perpajakan-presiden-minta-tak-menyulitkan-wp/>
- [61] Zaied, A.N.H. 2012. An Integrated Success Model for Evaluating Information System in Public Sectors. *Journal of Emerging Trends in Computing and Information Sciences*, 3 (6): 814-825. Available at: [https://www.researchgate.net/publication/283772822\\_An\\_Integrated\\_Success\\_Model\\_for\\_Evaluating\\_Information\\_System\\_in\\_Public\\_Sectors](https://www.researchgate.net/publication/283772822_An_Integrated_Success_Model_for_Evaluating_Information_System_in_Public_Sectors)