

# The Effect of Top Management Support and Computer Self-Efficacy on the Quality of Accounting Information Systems

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**Abstract:** *The study compared the linear and log-linear equation model in describing the influence of top management support (TMS) and computer self-efficacy (CSE) on the quality of accounting information systems (QAIS). Then, determined the most feasible model of both. Data analysis was conducted by using SEM-PLS with software Smart PLS 3.0. The result of research indicates that the increased top management support significantly influences on the increasing quality of accounting information systems. Also, that the increasing of computer self-efficacy has a significant effect on improving the quality of accounting information systems. The log-linear equation model is more viable to describe the influence of top management support and computer self-efficacy on the quality of accounting information systems. Production elasticity from the influence of top management support and computer self-efficacy on the quality of accounting information systems is less than 1 which indicates the decreasing return to scale. The quality of accounting information systems will increase with a smaller proportion than the increase of top management support and computer self-efficacy. Increased TMS and CSE will increase QAIS, however an increasing QAIS experiences a decreasing return to scale.*

**Index Terms:** *Top Management Support, Computer Self-Efficacy, Accounting Information Systems, Equation Model.*

## I. INTRODUCTION

Most of the regional owned enterprises (BUMDs) financial services sector in Indonesia are in the form of BPRs (Rural Banks) and LKMs (Micro Finance Institutions). According to [5], data from the Financial Services Authority (OJK) shows that BPRs and LKMs industry assets only reach 1.69% of total assets of commercial banks. However, the role of BPRs and LKMIs in pushing the region's economy is great vital, although they still face low quality of human resources (HR) and lack of information technology (IT) infrastructure. According to [28], accounting and information technology systems should receive particular attention for immediate

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repair by regional owned enterprises (BUMDs) financial services sector.

The emergence of problems at accounting information systems and information technology resulted in weak financial reports of several BUMDs financial services sector in recent years. To achieve the quality of the information system, there are need of supporting from top management [41; 34; 45; 13]. The accounting information systems (AIS) quality was enhanced by the effective implementation of internal control and top management support [16]. According to [29]; [31]; [33], that top management support having improved and significantly influence on the quality of accounting information systems. Therefore, top management support is one of the factors that influence the quality of accounting information systems.

Furthermore, the presence of computer information technology in organizations has expanded since last several years [53]. The successful information systems development requires creative problem solving skills, and present two cognitive factors, self-efficacy, and creative self-efficacy, and one affective factor, playfulness, as three key personal factors that aid creative problem solving during information systems development [12]. Therefore, computer self-efficacy is one of the essential variables in the successful use of information technology including accounting information systems [2]. High CSE of the students have a significant effect on the quality of the information system [48].

The model of equation function is required in studying the significance of the relationship among variables. There are two kinds of equation function models, namely linear and nonlinear functions. The linear equations is a simple model, so it is easy to analyze by linear regression. However, the model of linear equations has a weakness, i.e., it has no minimum and maximum limits or in other words has a constant slope [32]. Whereas in theory, the continuous change of independent variables (input variables) on a fixed number of fixed inputs, causes three possible changes in the dependent variable (output), i.e., increasing returns to scale, constant return to scale and diminishing return to scale, or slope is not constant [19].

This study examines the feasible model of equation function that can be applied to the study of the influence of top management support and computer self-efficacy on the quality of accounting information systems, whether linear or non-linear models are transformed in the form of

log-linear equations. Based on the description of the research background, this research problem is formulated as follows:

- How much increase top management support positively affects on the quality of accounting information systems?
- How much increase computer self-efficacy positively affect on the quality of accounting information systems?
- Which model should be used to describe the effect of top management support and computer self-efficacy on the quality of accounting information systems?

## II. LITERATURE REVIEW

### A. Top Management Support (TMP)

Top management is a stakeholder group that has the primary responsibility of setting organizational goals and objectives and allocating organizational resources to achieve goals [21]. According to [10], top management support demonstrates a commitment to the time, cost, and resources to support suppliers for long-term partnerships and for the company to proceed steadily. Associated with accounting information systems, top management support is the extent to which senior executives understand the importance of information systems functions and engage in information systems activities [40]. Top management support is to provide adequate financial, material and human resources for the effective implementation of information systems [9; 3; 15; 11]. Top management define organizational strategy and allocate the human and financial resources to achieve organization success [24]. Grouping top management support into two parts: TMB (top management belief) and TMP (top management participation). TMB is the top management belief in information systems so that it will place the strategic position of IS (information system) and decision priority on IS. TMP is the top active participation of management, seeks to preserve resources and lead change [11].

Based on the above definitions, it can be conclude that top management support is the trust and active involvement of top management of the organization to always place the strategic position of the accounting information system, make priority decisions on the accounting information system, maintain and strengthen the quality of organizational resources, on achieving organizational goals.

### B. Computer Self-Efficacy (CSE)

According to [1], computer self-efficacy (CSE) is an individual belief about the ability to perform specific tasks (computation) and persistence in the face of challenging situations. According to [23], CSE is a person's belief in his ability to complete computer tasks. CSE is essential for technology adoption [50], and refers to an individual's belief who has the skills and abilities to complete a specific task successfully [54]. In general, CSE refers to the belief that the subject can perform well on various computer tasks. CSE specifically refers to the notion that the issue can perform well by using certain technologies such as programming,

database development, information systems, and others [20]. The CSE constructs measure computer knowledge and skills as well as the ability to apply the computer in performing job tasks [4]. There are three dimensions of computer self-efficacy, namely magnitude, strength and generability [26; 37; 38].

Based on some concepts and definitions of CSE above, it can be concluded that computer self-efficacy refers to the beliefs of a person in doing a job related to the use of information technology proxied with the computer.

### C. Quality of Accounting Information Systems (QAIS)

According to [46], the accounting information systems (AIS) focuses on recording, summarizing and validating data on business financial transactions. According to [27], AIS is a set of interconnected components that work together harmoniously in collecting (or retrieving), processing, storing, and distributing information to support organizational decision making and control. Accounting information system components consist of hardware, software, brainwave, procedures, databases, network communication technology [49; 42; 47; 43]). Based on several definitions above, it can be concluded that the AIS is a collection of components that are interconnected and cooperate with each other in harmony to process transaction data related to finance into financial information as a decision-making material.

The quality measurement of AIS is determined by the measurement of the quality of accounting information [43; 39]. A qualified AIS able to meet the internal and external needs of users, able to adapt and integrate with other systems [43; 8]. A qualified AIS can produce accounting information relevant to user needs [44; 14; 17; 30; 51]. According to [7], the criteria to determine the level of quality of accounting information system are reliable and integrated. According to [35], the quality components of accounting information systems are accessibility, integration and reliability, flexibility and timeliness. According to [25], the quality of information system consists of reliable, relevant, and timeliness. Based on several definitions above can be concluded that the quality of accounting information systems is characterized by the criteria of integration, reliable, flexible, relevant, and timeliness.

## III. RESEARCH METHOD

The study was designed to determine a reasonable model in explaining the effect of top management support and computer self-efficacy on the quality of accounting information systems. The research used survey method with descriptive and verification research type which conducted with a cross-sectional study. The unit of analysis were Regional Owned Enterprises (BUMDs) of the financial services sector in West Java and Banten Province. This is because BUMDs financial services sector are BUMDs those play a role in advancing the micro, small, and medium



enterprises (MSMEs) business in the region, but faces problems in the quality of accounting information systems and decreasing companies performance. The BUMDs financial services sector are also the largest number of BUMDs in West Java and Banten. Based on [6] the number of enterprises of BUMDs financial services sector in West Java and Banten are 68 units or 60% of the total number of BUMDs in West Java and Banten. The subjects of the study were the head of BUMD, the chief of accounting and general, as well as accounting and finance officers in the financial services sector.

The population was the entire BUMDs of the financial services sector in West Java and Banten. The sample size of the research were 38 units of the business entity, with basic criteria is specific to BUMD that has implemented computer-based accounting information systems. Primary data was collected through interviews using questionnaires. Secondary data was obtained through library search and related agency reports. Data analysis was done through SEM-based Partial Least Square analysis (SEM-PLS) using software Smart PLS 3.0. The variables that are operationalized in the research are:

#### A. Top Management Support (TMS)

Top management support variable has 4 manifest variables, i.e. [11; 15]:

##### 1) Emphasizing strategic position of AIS

Top management promotes AIS positions to strategic roles by devoting them to the vision of mission and AIS alignment with business strategy. The indicator used is the emphasis of AIS's strategic position on the organization's mission and AIS alignment with business strategy.

##### 2) Prioritizing AIS decision.

Opinions need to be openly developed to realize AIS project decision priorities. Top management must discuss and make decisions to overcome resistance. The indicators include openness of opinion for AIS decision making and the intensity of decision-making for AIS success.

##### 3) Maintaining resources.

The development of a AIS requires a lot of human, material and financial resources. The indicators are the suitability of quantity and quality of human and material resources with the need for AIS development, and financial availability for AIS implementation.

##### 4) Leading the change.

The planning, organizing, leadership, and control of top managers is a manifestation of participation in the AIS implementation process. Indicators used are planning, organizing, and controlling top managers for better AIS changes.

#### B. Computer Self-Efficacy (CSE)

The computer self-efficacy (CSE) variable has 3 manifest variables, namely [26; 37; 38]:

##### 1) Magnitude.

Refers to the level of capability in completing computer tasks. The indicator used is the ability to complete computing tasks.

##### 2) Strength.

Referring to the survival of individuals when facing obstacles and problems in completing computational tasks. The indicators are perseverance in dealing with and resolving obstacles and computing work problems.

##### 3) Generability.

Refers to the level of adaptation in using new computing technologies. The indicator used is the level of adaptation in using new computing technology.

#### C. Quality of Accounting Information Systems (QAIS)

The quality of accounting information systems consists of 5 manifest variables include integration, reliable, flexible, relevant, and timely [7; 35; 25; 22].

##### 1) Integration.

The AIS components are interconnected, and systems are connected to other systems [8;43; 52]. The indicators are integration between AIS components and AIS integration with other systems.

##### 2) Reliable.

The information provided is accurate and consistent [25]. The indicator is to produce accurate data and produce consistent information.

##### 3) Flexible.

AISs can adapt to the development of the organization and the needs of various users [22]. Indicators include being able to adjust to the development of the organization and accommodate the needs of multiple users.

##### 4) Relevant.

Relevance refers to the suitability, accuracy, and importance of existing information [25]. The indicators used are generating information relevant to the situation.

##### 5) Timeliness.

The indicator is the availability of information in time is required

## IV. RESULT AND DISCUSSION

### A. Evaluation at Linear Equation Model

#### 1) Measurement Model (Outer Model)

The measurement model analysis was done through confirmatory factor analysis (CFA) on the three variables: top management support, computer self-efficacy and quality of accounting information system. Each variable has a unidimensional construct form, then the CFA through the first order construct.



a) Convergent validity

Table 1 shows that the indicators in the three variables have a value of factor loading greater than 0.70. This means those the indicators on the three variables are converged on the constructs of each dimension. Therefore, each indicator has a convergent validity as its respective variable. Based on Table 2, average variance extracted (EVA) at each variable is more than 0.50, showing that information contained in manifest variable is reflected through construct of the variable and therefore each indicator is valid as a measuring instrument of their respective variables.

b) Construct Reliability

Table 2, the composite reliability (CR) and Cronbach's alpha at the three variables show the all value greater than 0.7. This indicates that each indicator in all three variables has accuracy, consistency, and precision in measuring their respective dimensional constructs.

Table 1. Outer Loading Linier Equation Model

Manifest variable (Indicator)	TMS (X <sub>1</sub> )	CSE (X <sub>2</sub> )	QAIS (Y)	Explanation
X <sub>1.1</sub> (Emphasizing strategic position of AIS)	0.930			Valid
X <sub>1.2</sub> (Prioritizing IS decision)	0.904			Valid
X <sub>1.3</sub> (Maintaining resources)	0.911			Valid
X <sub>1.4</sub> (Leading the change)	0.828			Valid
X <sub>2.1</sub> (Magnitude)		0.858		Valid
X <sub>2.2</sub> (Strength)		0.727		Valid
X <sub>2.3</sub> (Generability)		0.806		Valid
Y <sub>1</sub> (Integration)			0.926	Valid
Y <sub>2</sub> (Reliability)			0.953	Valid
Y <sub>3</sub> (Flexibility)			0.943	Valid
Y <sub>4</sub> (Relevant)			0.941	Valid
Y <sub>5</sub> (Timeliness)			0.881	Valid

Table 2. Average Variance Extracted (AVE) Linier Equation Model

No	Variable	AVE	Explanation	Composite reliability	Cronbach's alpha	Explanation
1	a. Top Management Support (TMS)	0.799	Valid	0.941	0.916	Reliable
2	b. Computer Self-Efficacy (CSE)	0,638	Valid	0.840	0.713	Reliable
	Quality of Accounting Information Systems (QAIS)	0,864	Valid	0.969	0.960	Reliable

2) Structural Model (Inner Model) and Goodness of Fit

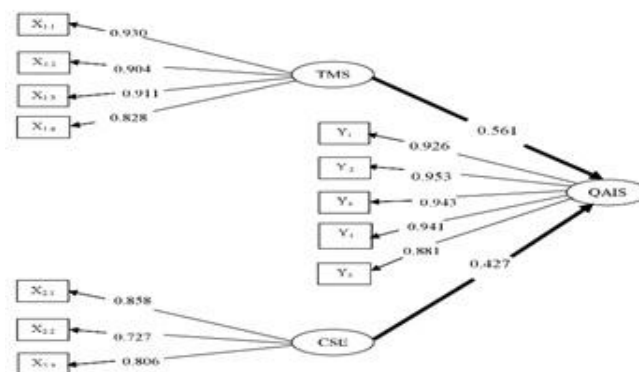


Fig.1 Structural Model of Linear Equation

Table 3. Goodness of Fit of Linear Equation Model

Path	Path Weigh t	t stat	t critic al	Conclus ion	Direct Influe nce	R <sup>2</sup>
TMS → QAIS	0.561	2.979	1.65	H <sub>0</sub> rejected	56.1 %	0.871
CSE → QAIS	0.427	2.091	1.65	H <sub>0</sub> rejected	42.7 %	

According to Table 3, the path weights of 0.561 indicates that top management support (TMS) has a positive effect on the quality of accounting information systems (QAIS) with direct effect of 56.1 %. Computer Self-Efficacy (CSE) with the path weight of 0.427 has a positive effect on the quality of accounting information system (QAIS) with direct effect of 42.7 %. The TMS effect on QAIS has a stronger path effect than the CSE effect on QAIS. The R-square value shows that TMS and CSE together give 87.1 % influence to QAIS, while the rest equal to 12.9 % is the influence of other factors not examined.

3) Hypothesis Testing

a) The First Hypothesis: The Impact of Top Management Support (TMS) on Quality of Accounting Information Systems (QAIS)

The first hypothesis is formulated as follows:

H0: Increased top management support does not affect to the quality of accounting information systems

H1: Increased top management support affects to the quality of accounting information systems

Based on Table 3, t stat calculated to be 2.979 higher than the critical t 1.65, then at a 5% error rate (α) it was decided to reject Ho. The conclusion is that the increasing of top management support (TMS) has an effect on the quality of accounting information system (QAIS) of BUMDs Financial Services Sector in West Java and Banten Province.

b) Second Hypothesis: The Effect of Computer Self-Efficacy (CSE) on Quality of Accounting Information Systems (QAIS)

The second hypothesis is formulated as follows:

H0: Increased computer self-efficacy (CSE) does not



affect to the increasing quality of accounting information systems

H1: Increased computer self-efficacy (CSE) affects to the quality of accounting information systems

Based on Table 3, t stat calculated to be 2.091 higher than the critical t 1.65, and then at a 5% error rate ( $\alpha$ ) it was decide to reject H0. It lead to the conclusion is that the increase of computer self-efficacy (CSE) has an effect on the quality of accounting information system (QAIS) BUMDs Financial Services Sector in West Java and Banten Province.

**B. Evaluation of Log-Linear Equation Model**

**1) Measurement Model (Outer Model)**

The measurement model analysis was done through confirmatory factor analysis (CFA) on the three variables: top management support, computer self-efficacy and quality of accounting information system. Each variable has a unidimensional construct form, then the CFA through the first order construct.

**a) Convergent validity**

Table 4 shows that the indicators in the three variables have a value of factor loading greater than 0.70. This means those the indicators on the three variables are converged on the constructs of each dimension. Therefore, each indicator has a convergent validity as its respective variable. Based on Table 5, average variance extracted (EVA) at each variable is more than 0.50, showing that information contained in manifest variable is reflected through construct of the variable and therefore each indicator is valid as a measuring instrument of their respective variables.

**b) Construct Reliability**

Table 5, the composite reliability (CR) and cronbach's alpha at the three variables show the all value greater than 0.7. This indicates that each indicator in all three variables has accuracy, consistency, and precision in measuring their respective constructs.

**Table 4.** Outer Loading Log-Linier Equation Model

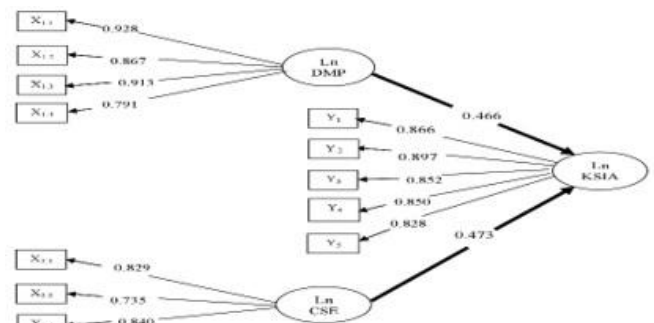
Manifest variable (Indicator)	Ln TMS (X <sub>1</sub> )	Ln CSE (X <sub>2</sub> )	Ln QAIS (Y)	Explanation
X <sub>1.1</sub> (Emphasizing strategic position of AIS)	0.928			Valid
X <sub>1.2</sub> (Prioritizing IS decision)	0.867			Valid
X <sub>1.3</sub> (Maintaining resources)	0.913			Valid
X <sub>1.4</sub> (Leading the change)	0.791			Valid
X <sub>2.1</sub> (Magnitude)		0.829		Valid
X <sub>2.2</sub> (Strength)		0.735		Valid
X <sub>2.3</sub> (Generability)		0.840		Valid
Y <sub>1</sub> (Integration)			0.866	Valid

Y <sub>2</sub> (Reliability)	0.897	Valid
Y <sub>3</sub> (Flexibility)	0.852	Valid
Y <sub>4</sub> (Relevant)	0.850	Valid
Y <sub>5</sub> (Timeliness)	0.828	Valid

**Table 5.** Average Variance Extracted (AVE) Log-Linier Equation Model

No	Variable	AVE	Expl anation	Com posite reliab ility	Cron bach' s alpha	Expl anat ion
1	c. Top Management Support (TMS)	0.768	Vali d	0.930	0.898	Reli able
2	d. Computer Self-Efficacy (CSE) Quality of	0.644	Vali d	0.844	0.722	Reli able
3	Accounting Information Systems (QAIS)	0.738	Vali d	0.934	0.911	Reli able

**2) Structural Model (Inner Model) and Goodness of Fit**



**Fig.2** Structural Model Log Linear Equation

**Table 6.** Goodness of Fit of Log-Linear Equation Model

Path	Path Weight	t <sub>stat</sub>	t <sub>critical</sub>	Conclusion	Direct Influence	R <sup>2</sup>
Ln TMS → Ln QAIS	0.46	3.057	1.65	H <sub>0</sub> rejected	46.6 %	0.780
Ln CSE → Ln QAIS	0.47	2.892	1.65	H <sub>0</sub> rejected	47.3 %	

According to Table 6, the path weights of 0.466 indicates that top management support (TMS) has a positive effect on the quality of accounting information systems (QAIS) with direct effect of 46.6 %. Computer Self-Efficacy (CSE) with the path weight of 0.473 has a positive effect on the quality of accounting information system (QAIS) with direct effect of 47.3 %. The TMS effect on QAIS has a stronger path effect than the CSE effect on QAIS. The R-square value shows that TMS and CSE together give 78.0 % influence to QAIS, while the rest equal to 22.0 % is the influence of other factors not examined.

**3) Hypothesis Testing**

**a) The First Hypothesis: The Impact of Top Management Support (TMS) on Quality of**



**Accounting Information Systems (QAIS)**

The first hypothesis is formulated as follows:

H0: Increased top management support does not affect to the quality of accounting information systems

H1: Increased top management support affects to the quality of accounting information systems

Based on Table 6, t stat calculated to be 3.057 higher than the critical t 1.65, then at a 5% error rate ( $\alpha$ ) it was decided to reject Ho. The conclusion is that the increasing of top management support (TMS) has an effect on the quality of accounting information system (QAIS) of BUMDs Financial Services Sector in West Java and Banten Province.

**b) Second Hypothesis: The Effect of Computer Self-Efficacy (CSE) on Quality of Accounting Information Systems (QAIS)**

The second hypothesis is formulated as follows:

H0: Increased computer self-efficacy (CSE) does not affect to the increasing quality of accounting information systems

H1: Increased computer self-efficacy (CSE) affects to the quality of accounting information systems

Based on Table 6, t stat calculated to be 2.892 higher than the critical t 1.65, and then at a 5% error rate ( $\alpha$ ) it was decided to reject H0. It lead to the conclusion is that the increase of computer self-efficacy (CSE) has an effect on the quality of accounting information system (QAIS) BUMDs Financial Services Sector in West Java and Banten Province.

**C. Discussion**

Relationship model among variables in each equation model as follows:

The linear equation model:  $Y = 0.561 X1 + 0.427 X2$  (1)

The log-linear equation model:  $\ln Y = 0.466 \ln X1 + 0.473 \ln X2 \dots$  (2)

**1) Effect of Top Management Support on the Quality of Accounting Information Systems**

Based on the equation (1) and (2) above, the result of the research shows that the increased of top management support X1 (TMS) affects to the increasing quality of accounting information system Y (QAIS) of BUMDs company of financial services sector in West Java and Banten province, both linear equation and log-linear equation. The coefficient value of path weights in the linear equation model (equation (1) is 0.561 means that every increase of X1 (top management support/TMS) is ten units, then Y (quality of accounting information systems/QAIS) will increase by 5.61 units. While in log-linear equation model (equation (2), path weight coefficient of 0.466 means that every increase of X1 (top management support/TMS) is 10%, then variable Y (quality of accounting information systems) will increase by 4.66%.

In the linear equation model, the increase in QAIS due to an increase in TMS is absolute but relatively disproportionately different at all levels of system quality. As for the log-linear model, QAIS increase due to an increase of TMS proportional at every level of system quality. The results of this study provide empirical evidence of the

importance of top management support to improve the quality of accounting information systems in the BUMD financial services sector in the Province of West Java and Banten.

**2) Effect of Computer Self-Efficacy on the Quality of Accounting Information Systems**

The result of the research also shows that the increased of computer self-efficacy (CSE) affects to the increasing quality of accounting information systems (QAIS) of BUMDs financial services sector in West Java and Banten Province, both linear and log-linear equation. Relationship model among variables in each equation model as shown equations (1) and (2) above.

Coefficient value of path weight on linear equation model 0.427 (equation 1) means that every increase of X2 (computer self-efficacy/CSE) is 10 unit, then variable Y (quality of accounting information systems/QAIS) increases by 4.27 unit. While in log-linear equation model (equation 2), path weight coefficient of 0.473 means that every increase of X2 (computer self-efficacy/CSE) is 10%, then Y (quality of accounting information system/QAIS) increases by 4.73%. In the linear model, the increase in QAIS due to CSE increment is equally absolute but relatively disproportionately different at all levels of system quality. As for the log-linear model, QAIS increase due to the increase of CSE proportional at every level of system quality. The performance of accounting information system is the result of work achieved by employees in performing tasks to the system by applying information technology. Through the achievement of the performance of each employee, thus lead to the resulting quality information system.

**3) Eligibility of Equation Model**

**Table 7.** Comparison of Linear and Log-Linear Equation Model

Structure	Component	Linear Model	Log-Linier Model
TMS QAIS	t <sub>stat</sub>	2.979	3.057
CSE QAIS	t <sub>stat</sub>	2.091	2.892

Table 7 in both structures shows that the value of tstat log-linear equation gives results more significantly than linear equations. Based on these, the log-linear equation model is more appropriate to be used to describe the effect of top management support and computer self-efficacy on the quality of accounting information systems [18]. Thus, it can be concluded that log-linear equation model is more feasible used to describe the effect of top management support and computer self-efficacy to the quality of accounting information systems.

The log-linear equation model is more feasible than the linear equation model because the linear equation model has no minimum and maximum limits [32]. Whereas in fact, the change in the increase or decrease in the dependent variable (output) that takes place continuously due to changes in the independent variable (input) will have the saturation





point. There will be a maximum point and a minimum point. The model of log-linear equations obtained if reversed to anti-log will form Cobb Douglass production function model, namely:

$$\ln Y = \ln a_0 + b_1 \ln X_1 + b_2 \ln X_2 \quad (3)$$

$$\text{In the anti-log equation, it becomes: } Y = a_0 X_1^{b_1} X_2^{b_2} \quad (4)$$

$$\text{Or } Y = a X_1^{0.466} X_2^{0.473} \quad (5)$$

The magnitude of  $b_1$  and  $b_2$  in equation (5) shows the elasticity of the production (Ep) of top management support and computer self-efficacy to the quality of accounting information systems. The sum of the elasticity of production is a measure of returns to scale. Based on the path weight coefficient of the obtained, where  $b_1 = 0.466$  and  $b_2 = 0.473$  yields a sum of 0.939 or 0.939 of production elasticity shows  $Ep < 1$ . This means that the BUMDs financial services sector in Provinces of West Java and Banten are in decreasing returns to scale where QAIS output will increase with a smaller proportion than the increase of TMS and CSE inputs. Increased TMS and CSE will increase QAIS with increasing QAIS decreasing until reach saturation point.

## V. CONCLUSION AND RECOMMENDATION

### A. Conclusion

- 1) Increasing the top management support on the accounting information systems, thus lead to significantly increasing the quality of accounting information systems.
- 2) Increasing the computer self-efficacy employees, thus lead to significantly increasing the quality of accounting information systems.
- 3) A model log-linear equation function more feasible used to describe the influence of top management support and computer self-efficacy to quality of accounting information systems. This conclusion implies that the magnitude of the influence of the change of independent variables on the change of dependent variable in this study is not constant value as in the model of linear equation, but proportional to a certain percentage or constant production elasticity. Based on the elasticity of production obtained, it is known that the effect of increased top management support and computer self-efficacy on the quality of accounting information system is in the decreasing return to scale.

### B. Recommendation

- 1) The business scale is crucial as one consideration determines the size of the company. Given the quality of accounting information systems at zone decreasing return to scale, then the practical implication that BUMDs of the financial services sector should increase the number of fixed inputs associated with the accounting information systems (AIS), such as system coverage, to offset the increase of TMS and CSE inputs. Limited system coverage will not produce greater added value than the addition in increasing TMS and CSE. The scope of the system includes the reach of information and information features that can be accessed by users.

- 2) The policy implication is how the government to create the business climate without to limit business activity of BPRs and LKMs, so that they could be trusted to enter the short term and long term financial market unimpeded. For example, BPRs and LKMs given trust to become a financial institution that lend subsidy funding from government to MSMEs. Besides, the government policy has to ensure that BPRs and LKMs become the institution that could conduct to expand business such as to open domestic payment traffic. That's could solve a problem of decreasing return to scale as caused by increasing TMS and CSE.
- 3) Examine other variables measured by ratio scale and perform testing models whether linear or log linear model before deciding which model to use.

## REFERENCES

- [1] Adamson, I., & Shine, J. 2003. "Extending the New Technology Acceptance Model to Measure the End User Information Systems Satisfaction in a Mandatory Environment: A Bank's Treasury". *Technolgy Analysis & Strategic Management*, Vol. 15 No. 4: pp 441-455.
- [2] Agarwal, R. and E. Karahanna. 2000. "Time Flies When You're Having Fun: Cognitive Absorption and Beliefs about Information Technology Usage". *MIS Quarterly* Vol. 24, No. 4 (Dec. 2000), pp. 665-694, Published by: Management Information Systems Research Center, University of Minnesota.
- [3] Ahmed, R. & N. Azmi bin Mohamad. 2016. "Exploring the Relationship Between Multi-Dimensional Top Management Support and Project Success: An International Study". *Engineering Management Journal*, Vol. 28, 2016, Issue 1 pages 54-67.
- [4] Ali, A. Saeed Bani. 2005. "An Assessment of The Impact of The Fit Among Computer Self-Efficacy, Task Characteristics and Systems Characteristics on Performance and Information Systems Utilization". A Dissertation Submitted to the School of Business of the George Washington University in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy.
- [5] Apriyani. 2016. "Bpr Menanti Dana Pemda". At <https://infobanknews.com/bpr-menanti-dana-pemda/>
- [6] Badan Pusat Statistik Provinsi Jawa Barat, 2017. *Profil Badan Usaha Milik Daerah (BUMD) Jawa Barat 2015 (Profile of Regional Owned Enterprises in West Java 2015)*.
- [7] Baltzan, P. 2014. "Business Driven Information System". Fourth edition, New York; the McGraw-Hill.
- [8] Bocij, P.; A. Greasley; S. Hickie. 2015. "Business Information System Technology, Development and Management for the E-Business". Fifth edition, London: Pearson Education Limited.
- [9] Boonstra, A. 2013. "How Do Top Managers Support Strategic Information System Projects and Why Do They Sometimes with Hold This Support?". *International Journal of Project Management*, 31 pp. 498 - 512.
- [10] Chen, Injazz J. and A. Paulraj. 2004. "Towards a Theory of Supply Chain Management: The Constructs and Measurements". *Journal of Operations Management*, 22 (2004) 119-150.
- [11] Chen, Xiao Chun; Zhao, Zhao; Wang, Yun Feng. 2012. "The Effects of Top Management Support on Information System Success: Manufacturing Industry Cases". *Applied Mechanics and Materials*, Vol. 157-158 (2012) pp 344-348.
- [12] Chiravuri, A. 2007. "Exploring The Role of Self-Efficacy, Playfulness, And Creative Self-Efficacy". *Issues in Information Systems*, Volume VIII, No. 2, (2007): 200-206.
- [13] Darmansyah, A., & Hamidah. 2017. "The Effect of Accounting Knowledge, Entrepreneurship Spirit and Capital Accessibility to Financial Performance of Footwear Creative Industries with Government Policy as Moderating Variable". *Advanced Science Letters*, Vol.23 No. 9 September 2017 p.8119-8126.
- [14] Doll, William J. & Gholamreza Torzkadeh. 1988. "The Measurement of End-User Computing Satisfaction". *MIS Quarterly*, June: 259 -274. E-Journal on-line, at [http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer\[06/10/16\]](http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?06/10/16)
- [15] Dong, L., Neufeld, D., & Higgins, C. 2009. "Top Management Support of Enterprise Systems Implementations". *Journal of*

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- Information Technology, 24(1), 55-80.
- [16] Fitriati, A. & A. Susanto. 2017. "The Accounting Information System Quality Improvement Through Internal Control and Top Management Support Effectiveness". *Journal of Theoretical and Applied Information Technology*, Vol. 95, No. 19 (2017): 5003-5011.
- [17] Guimaraes, T.; D.S. Staples; James D. McKeen. 2003. "Empirically Testing Some Main User-Related Factor for Systems Development Quality". *Quality Management Journal*, 10(4) : 39-54.e-Journal on-line at [http://e-resources.pnri.go.id:2056/docview/213593842?pqrigrsite=summon\[11/2/16\]](http://e-resources.pnri.go.id:2056/docview/213593842?pqrigrsite=summon[11/2/16])
- [18] Gujarati, D.N. 2003. "Basic Econometrics 4<sup>th</sup> ed". International Edition. New York: The McGraw-Hill Companies, Inc.
- [19] Gujarati, D. N. 2012. "Econometrics by Example". 1<sup>st</sup> edition, Palgrave Macmillan, England.
- [20] Hauser, Richard; Ravi Paul; and John Bradley. 2012. "Computer Self-Efficacy, Anxiety, and Learning in Online Versus Face to Face Medium". *Journal of Information Technology Education: Research*, Volume 11, 2012: 141-154.
- [21] Jones, G.R. 2013. "Organizational Theory, Design, and Change". Seventh edition, Pearson Edition Limited, Edinburgh Gate Harlow Essex CM20 2JE, England.
- [22] Kieso, Donald E.; Jerry J. Weygandt; Terry D. Warfield. 2014. "Intermediate Accounting". IFRS Edition, Second Edition, John Wiley & Sons, Inc.
- [23] Langford, Margaret & Thomas E. Reeves. 2016. "The Relationships between Computer Self-Efficacy and Personal Characteristics of the Beginning Information Systems Student". *Journal of Computer Information System*, Pages 41-45, Publish online 1 February 2016.
- [24] Laudon, K.C. and J.P. Laudon. 2012. "Management Information Systems. Managing The Digital Firm". 12th Edition, Pearson Education Inc. Upper Saddle River, New Jersey, 07458
- [25] Lee, Sanghoon; B. Shin.; and Ho Geun Lee. 2009. "Understanding Post-adoption Usage of Mobile Data Services: The Role of supplier-side Variables". *Journal of The Association for Information Systems*, Vol. 10 (12), 860-888.
- [26] Lenz, E. R. & Baggett, L. M.S. 2002. "Self-Efficacy in Nursing: Research and Measurement Perspectives". NY: Springer Publishing Company. at <http://books.google.co.id/books>
- [27] Loudon, Kenneth C. & Jane P. Loudon. 2016. "Management Information System, Managing the Digital Firm". 14<sup>th</sup> edition, London Pearson Education Limited.
- [28] Marsudi, W.K. 2015. "Ini Fokus BPR Tahun Ini", at <https://ekbis.sindonews.com/read/951561/34/ini-fokus-bpr-tahun-ini-1421392300>
- [29] Meiryani. 2014. "Influence of Top Management Support on the Quality of Accounting Information Systems and Its Impact on the Quality of Accounting Information". *Research Journal of Finance and Accounting*, Vol. 5, No. 11, 2014.
- [30] Melone, N.P. 1990. "A Theoretical Assesment of the User-satisfaction Construct in Information Systems Research". *Management Science*, 36:76-91, at <http://e-resources.pnri.go.id:2061/media/pq/classic/doc>
- [31] Mkonya, V. L.; Yu Jintian; S. B. Nanthuru; S.A. Jinyevu. 2018. "Analysis of Top Management Support and Individual Factors Influence on Accounting Information System and its Impact on the Accounting Information Quality for Projects". *International Journal of Management Science and Business Administration*, Volume 4, Issue 3, March 2018, Pages 19-29
- [32] Nachrowi, D.N., & H. Usman. (2006). *Pendekatan Populer dan Praktis Ekonometrika untuk Analisis Ekonomi dan Keuangan*, Jakarta: Lembaga Penerbit Fakultas Ekonomi UI.
- [33] Nur Afiah, N & R. Indahwati. 2015. "Top Management Support and User's Competency on the Accounting Information Systems Quality", *IJABER* Vol. 13, No. 6 (2015): 4049-4055
- [34] Olson, D. 2015. "Information System Project Management". New York: Business Expert, LLC.
- [35] Ong, Chorng-Shyong; Min-Yuh Day; and Wen-Lian Hsu. 2009. "The Measurement of User Satisfaction with Question Answering Systems". *Information & Management*, 46 pp. 397-403.
- [36] OJK (Otoritas Jasa Keuangan). 2017. Penguatan Kelembagaan Lembaga Keuangan Mikro dalam <http://psp.pertanian.go.id/assets/file/2017/Penguatan%20Kelembagaan%20Lembaga%20Keuangan%20Mikro%20.pdf>.
- [37] Pajares, F. 2002. "Overview of Social Cognitive Theory and of Self-efficacy, at <http://www.emory.edu/EDUCATION/mfp/eff.html>
- [38] Pajares, F. & Urdan. 2006. "Self-Efficacy Beliefs of Adolescent. USA: Information Age Publishing". at <http://books.google.co.id/books>
- [39] Pham Thi, Thanh Thoa and Markus Helfert. 2009. "An Information System Quality Framework based on Information System Architectures". Chris Barry; Kieran Conboy; Michael Lang; Gregory Wojtkowski and Wita Wojtkowski (Editors). *Information Systems Development. Challenges in Practice, Theory and Education*, Volume 2, New York: Springer Science+Business Media, LLC.
- [40] Ragu-Nathan, Bhanu S.; Charles H. Apigian; T.S. Ragu-Nathan, Qiang Tu. 2004. "A Path Analytic Study of The Effect of Top Management Support for Information System Performance". *International Journal of Management Science*, 32 pp. 459-471.
- [41] Rajeev & Yetton. 2011. "Top Management Support and IS Implementation: Further Support for the Moderating Role of Task Interdependence". *European Journal of Information Systems*, November 2011, Volume 20, Issue 6, pp 703-712.
- [42] Romney, Marshall B. & Paul J. Steinbart. 2015. "Accounting Information Systems". Global Edition, 13th Edition, England: Pearson Education Limited.
- [43] Sacer, I. Mamic and A. Oluic. 2013. "Information Technology and Accounting Information Systems' Quality in Croatia Middle and Large Companies, *Journal of Information and Organizational Sciences*, Vol. 37, No. 2 (2013), pp. 117 – 126.
- [44] Sajady, H.; M. Dastgir; Hasem Nejad. 2008. "Evaluation of the Effectiveness of Accounting Information Systems". *International Journal of Information Science & Technology*, Volume 6 Number 2, July/December, E-Journal on-line. at <http://ijism.ricest.ac.ir/ojs/index.php/ijism/article/view/101>.
- [45] Shaji A. Khan; Albert L. Lederer; Dinesh A. Mirchandani. 2013. "Top Management Support, Collective Mindfulness, and Information Systems Performance, International Information Management Association, Inc. ISSN1543-5962-Printed Copy, ISSN 1941-6679-On-line Copy.
- [46] Soudani, S. Nejadhosseini. 2012. "The Usefulness of an Accounting Information System for Effective Organizational Performance". *International Journal of economics and Finance*, 4.5 (May 2012): 136-145.
- [47] *Stair, Ralph M. & G.W. Reynolds. 2016. "Fundamentals of Information Systems". 8<sup>th</sup> Edition, USA: Cengage Learning.*
- [48] Suharno; E. Siti Astuti; K. Raharjo; Kertahadi. 2014. "The Effect Of Computer Self-Efficacy Toward System Quality, Information Quality, Service Quality, Usage, User Satisfaction, And Individual Impact (A Study on University Students Using the E-Learning System at Kopertis III Jakarta)". *Journal of Information Engineering and Applications*, Vol.4, No.4, 2014: 31-40.
- [49] Susanto, A. 2013. "Sistem Informasi Akuntansi, Struktur-Pengendalian-Risiko-Pengembangan". Lingga Jaya, Bandung.
- [50] Thatcher, Jason Bennett; J. Christopher Zimmer; Michael J. Gundlach, and D. Harrison McKnight. 2008. "Internal and External Dimensions of Computer Self-Efficacy: An Empirical Examination". *Transactions on Engineering Management*, Vol 55, No. 4, November 2008.
- [51] Thong, J.Y.L. & C.S. Yap. 1996. "Information Systems Effectiveness: A User Satisfaction Approach". *Information Processing & Management*, 32 : 601 – 610, at <http://www.sciencedirect.com/science/article/pii/0306457396000040>
- [52] Valacich, J. S.& C. Schneider. 2016. "Information Systems Today: Managing in the Digital World". 7th Edition, England: Pearson Education Limited.
- [53] Venkatesh, V.; Michael G. Morris; Gordon B. Davis and Fred D. Davis. 2003. "User Acceptance of Information Technology: Toward a Unified View". *MIS Quarterly*, Vol. 27, No. 3 (Sep., 2003), pp. 425-478, Published by: Management Information Systems Research Center, University of Minnesota.
- [54] Zhao, L. 2010. "Study on Online Banking Adoption and Its Predictors". *Second International Conference on Multimedia and IT*, pp.155-158

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