Analysis of Factors that Influence SOE'S Superior Performance with *Cost Leadership* as a Mediation Variable

Syarifa Yunindiah Lestari [a*], Etty Murwaningsari [a], Sekar Mayangsari [a] and Vinola Herawaty [a]

[a] Faculty of Economics and Business, Trisakti University, Indonesia.

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Original Research Article

ABSTRACT

This study aims to analyze the factors that affect the performance of State-Owned Enterprises or BUMN. The method of determining the sample using purposive sampling, and analyze the factors that affect the performance of State-Owned Enterprises. Research is finding that the variables that affect significantly the performance of state-owned enterprises are cost leadership, leverage, capital expenditure, growth, real earnings management activities, indicators of performance management, cash flow from operating, liquidity, taxes, size, contribution margin, and revenue. The originality of the research is, is the measurement of the variable cost leadership that is based on elasticity theory, and novelty in the measurement variable indicator of the performance of the management which is based on the criteria of the activity in judging the performance of SOEs. The implication of this research is to make it easier for SOE management to achieve performance targets by taking into account the magnitude of the coefficient of influence of key variables on the performance of SOEs.

_____

*Corresponding author: E-mail: assagaf29@yahoo.com, feb@trisakti.ac.id, yunindiah86@yahoo.com;

1. INTRODUCTION

1.1 Background Rear Research

This study aims to examine the phenomenon of the performance of State-Owned Enterprises or BUMN which has attracted a lot of attention among the public, academics, social media, and politicians in this country, especially because 114 BUMNs suffered losses and depended on their financial needs from government subsidies, as stated in the BUMN financial statements which published by the Ministry of SOEs via https://bumn.go.id. [1], The phenomenon is a research question that is interesting to study because SOEs should not suffer a loss that is sustained from year to year, because it has a chance to develop its business as a standalone through the mastery of a large share large that extensive, availability of materials raw which can be controlled with a relatively inexpensive price, support the government for the smooth process of the business, the availability of sources of power humans who are experienced and have the expertise, and the possibility of establishing a partnership with state-owned companies more to improve the efficiency of operations, ensure the certainty of the market and the availability of material raw.

Holders of shares realized the phenomenon of the performance of SOEs, thus considered important to treat the policy of the new, ie the criteria of assessment criteria of superior or KPKU which is based on the concept of the Malcolm Baldrige and has been adapted to the needs and conditions of SOEs. Implementation of policies KPKU that started since the year 2013 [2], but the results have not been effective to save SOEs from losses. It is happening mainly because the performance KPKU are influenced by various factors, so that the necessary identification to find the factors key or variable primary that determines the success of the performance of SOEs.

Research is identifying and clicking the analysis of many factors key that is significantly influential to the performance of SOEs, using several variables controls and examine the role of the variables intervening cost leadership in achieving the performance of SOEs.

Based on the phenomena performance of SOEs, the researchers are motivated to study the factors key that affect the performance of SOEs in more detail and analyze the factors associated with the strategy and policy of management of state-owned enterprises that have an impact on the performance of SOEs [3].

Several previous studies that reported on the key variables or factors that affect performance, were put forward by Sofiamira and Haryono [4], Ainur [5], Hanny, Herawaty, & Hasnawati [6], and A. Putra, Agustiningsih, & Purwanto [7], which states that the capital structure has a significant effect on the company's performance. Other studies have found that capital expenditure or investment policies for operational expansion have a significant effect on company performance, as previous studies by Sofiamira & Haryono [4], Amir, Guan, & Livne [8], Rahmiati & Sari [9], and Roychowdhury [10].

Research related to profitability found that earnings before interest and taxes or EBIT had a significant effect on company performance, as reported by A. Putra et al. [4], Sunardi & Hendarsah [11], Megayanti & Budiartha [12], Prasetyorini [13], G. Berger [14] and Chasanah & Adhi [15]. While research more relevant to the management of income find that earnings management by the approach of total accruals earnings management and approaches estate activities earnings management influence significantly on the performance of the company, as stated by Heni, Mulyadi, & Erick [16], Muid [17], Prasetyo, Subehan, & Harjanto [18] and Heni et al. [16].

Research more find that the cost leadership impact significantly on the performance of the company, but some studies also find that cost leadership is influenced by several factors so that the research is putting cost leadership as variable intervening variable. Cost leadership affects company performance, as previous research by Zeplin Jiwa Husada Tarigan [19], Birjandi et al. [20], and Ilyas et al. [21] suggests that cost leadership affects company profitability. This is relevant to this study which examines the effect of cost leadership on the superior performance of SOEs.

Cost leadership is the best comparison between cost and revenue that results in profitability, which is influenced by various factors as research by Chasanah & Adhi [15] which suggests that capital structure or leverage affects profitability which is the result of the best comparison in cost leadership between cost and intervening. Research other, which reported the effect of variable independent of the cost

38

leadership is, that is expressed by Ciptaningsih [22] by using a variable capital expenditure, Utomo (2010) uses variable earnings before interest and taxes, or EBIT, Salim [23] uses a variable total accruals earnings management, and Heni et al. (2015) using real activities earning management variables.

Research performance of financial SOEs much do the research beforehand, but research against criteria for assessment of performance superior or KPKU relatively limited, mainly because of the constraints of data secondary online, so difficult for researchers in the collection of data or need to do it directly to SOE observed. Research criteria for assessment of performance superior to SOEs are relatively more easily in terms of the collection of data, as information reports finances and report annual SOE can be obtained via the website SOE and the SOE Ministry.

Previous research related to the financial performance of SOEs, among others, was put forward by: (a) Handayani (2013), reported that the variables that had a significant effect on the financial performance of SOEs were the size of the board of directors and the size of the board of commissioners ; (b) Ciptaningsih [22], found that four variables had a significant effect on the financial performance of SOEs, namely human capital efficiency, structural capital efficiency, capital employed efficiency, and leverage; (c) Agustina, et al. (2015) reported that the variables that had a significant effect on the financial performance of SOEs were good corporate governance; (d) Fitriany (2013) reported that the two variables that affect significantly on the performance of the financial state-owned enterprises, namely the performance of the environment and the size of the company; and (d) Al Kautsar and Achmad (2012) report that the variables of good corporate governance and capital structure have a positive and significant effect on the financial performance of SOEs.

Previous research related to the assessment of the superior performance of BUMN was put forward by Estuningsari and Setyanto [24] with a case study of BUMN Jasa Tirta Malang. The result was reported that the studies are limited to the performance of the process on a category 1 up to category 6 with the value of the performance of a total of 70.18% were obtained from the results of assessment categories of leadership, planning strategically, focusing on the customer, measurement analysis and management of knowledge, focusing on the power of work, and focus on operation. Whereas category 7 results have not been studied, so it has not been able to assess the results of the performance of state enterprises in the subcategory of the results of the product and the process, the result of the focus on the customer, the result of a focus on the power of work, the result of a focus on leadership and Governance, as well as the results of financial and market.

With regard reference the results of the study referred to above, and based on the condition of empirical are associated with the performance of SOEs, then the research is to identify some of the factors key as a variable independent, variable control, and variable intervening that affect the criteria of assessment of performance superior to SOEs. The reason for placing cost leadership as an intervening variable is mainly because the empirical condition of BUMN shows that this intervening variable is influenced by the independent variable in this study, as well as having an important role in influencing the achievement of KPKU or the criteria for evaluating the superior performance of BUMN.
This study also analyzes the phenomenon of BUMN performance and research questions related to factors that affect the criteria for evaluating superior performance or KPKU. Research is identifying a variable key that affects the criteria for assessment of performance superior or KPKU by analyzing the basis of empirical conditions of the performance of SOEs and reviewing reference the results of research beforehand. Variables or factors key that, among other sources of policy management that are associated with the strategy in the determination of the structure of capital (leverage), the development of investment or policy of capital expenditure, the ability of management to manage the operations to be the result of the final, namely the achievement by the optimal structure of revenue and structure costs which resulted in earnings before interest and taxes, and the practice of earnings management either by using the approach of total accrual earnings management and approach to real earnings management activities. Of many variables that were selected as factors determinant of the performance of SOEs, then that becomes originality and excellence of research it is located on the novelty or newness of measurement variables intervening cost leadership based on elasticity theory and novelty measurement of indicators of performance management based on the category of process KPKU.

1.2 Research Problem

Based on the background behind the above, then the problem of basic research of this is as follows.

a) what is the direct effect of key variables on the performance of state-owned enterprises?
b) what is the effect of the key variables on cost leadership that have an impact on the performance of state-owned enterprises?

2. LITERATURE REVIEW, HYPOTHESES DEVELOPMENT, AND FRAMEWORK

2.1 Agency Theory

Agency theory, which was first proposed by Jensen and Meckling (1976), suggests that between the manager of the company as an *agent* and the owner as of the *principal* there is a contractual relationship, where the owner of the company gives responsibility to the manager in making decisions. In this contractual relationship, there is a conflict of interest, namely maximizing the profits of the owner of the company and the interests of maximizing the profit of the manager. The agency theory is expected to provide confidence to investors that it will accept a return of funds that have been invested. Owners of companies and managers require different information, namely the owners want to measure the performance of managers, while managers want to know information related to the prospect of future front companies.

In connection with the agency theory, the party most concerned about the performance of the management of SOEs is the owner in terms of this government which is represented by the Ministry of SOE. The study is to analyze the variables that influence the criteria for assessment of performance superior, which can be used to analyze and evaluate and take tin d will repair performance company with regard variable keys that affect the performance of SOEs.

2.2 Performance Theory

Understanding performance as Payaman Simanjuntak (2005) suggests performance is the level of achievement of results on the implementation of certain tasks. Company performance is the level of achievement of results to realize the company's goals.

Management performance is the overall activity that is done to improve the performance of the company or organization, including the performance of each individual and group work in companies.

In general to achieve the performance of these, then the necessary condition of the main to do the appraisal of performance that is effective, namely: *First*, the criteria of performance that can be measured by objective. *Second*, the evaluation process is objective. It is related to the assessment of the performance of SOEs were based on the criteria of assessment of performance superior or KPKU, where criteria are used is covering the overall performance of the company. While objectivity in the process of evaluation that is in the process of activities of operational and results end which acquired the company at the end of the period of assessment.

The performance of the company is affected by a variety of variables key as stated in the study of this, namely (a) the effect of directly variable independent of the performance of superior enterprises, (b) the effect is not directly variable independent of the performance of superior enterprises or the influence of variables independent of the variable intervening cost leadership which impacted to the superior performance of SOEs. Variable independent that effect on the performance of SOEs that proposed in the study it is (a) leverage, (b) capital expenditure, (c) growth that proxy with earnings before interest and taxes, (d) total accruals earnings management, (e) real earnings management activities, and (f) management performance indicators. This study also uses a control variable, to avoid its impact if it is not taken into account in the analysis of the influence of the independent variable on the dependent variable of BUMN performance.

2.3 Hypotheses Development

Based on the reference stated above, and explain the problems dati phenomenon of the performance of the State-Owned Enterprises, the research is put forward the hypothesis H1 and H2 below it.

H1: The key variables as in the conceptual framework have a significant effect on the performance of state-owned enterprises.
H2: The key variables as in the conceptual framework on cost leadership that have an impact on the performance of state-owned enterprises.

2.4 Framework

To illustrate the ties between the variables, the study uses a framework of analysis variables independent and variable control of the variable dependent performance superior to the State-Owned Enterprises. In the analysis of these, used two models of relationships quantitatively, namely: *First*, the effect of directly variable independent, variable control, and variable intervening against variable dependent performance superior to the State-Owned Enterprises. *Second*, the effect is not directly variable independent and variable control of the variable dependent with variable intervening cost leadership.

Framework analysis of the research is intended to describe in the more practical influence of variables independent, variable control, and variable intervening against variable dependent performance superior to the State-Owned Enterprises. Through analysis, such facilitates the analysis of the problems and explains proving hypotheses as illustrated below this.

3. METHODS

3.1 Sample Selection

The population of the study is composed of 114 state-owned companies until the end of the period in 2020, while the time series data of 2015 -2019. And after doing the identification by *purposive sampling* with criteria, then the selected sample was as many as 40 state-owned enterprises, so that total observation as much as 200 company-years (40 SOEs x 5 years = 200 the state-owned years).

Research is using the method of *purposive sampling* or choosing a sample base on consideration subjectively researcher who is considered to represent the population and can explain the problem was investigated. The method *purposive sampling* on the determination of sample research is the criteria, namely (a) state that healthy, (b) state enterprises suffered losses, (c) state-owned companies receive subsidies, (d) SOEs receive PMN or additional investments in the capital the government during the period of the study, (e) the size of the company with the scale of business or total assets of up to Rp 5 trillion, scale medium with total assets of Rp 5 trillion to Rp 10 trillion, and scale largely with total assets above Rp 10 trillion, with study five years latter are reported SOEs because of the business cycle according to the RJPP or the company's five- year long - term plan. Based on the results of selection such, has been elected as many as 40 state-owned companies with a period of observation of 5 years, so the observation research is as n = 200 (40 SOEs x 5 years = 200 SOEs year).
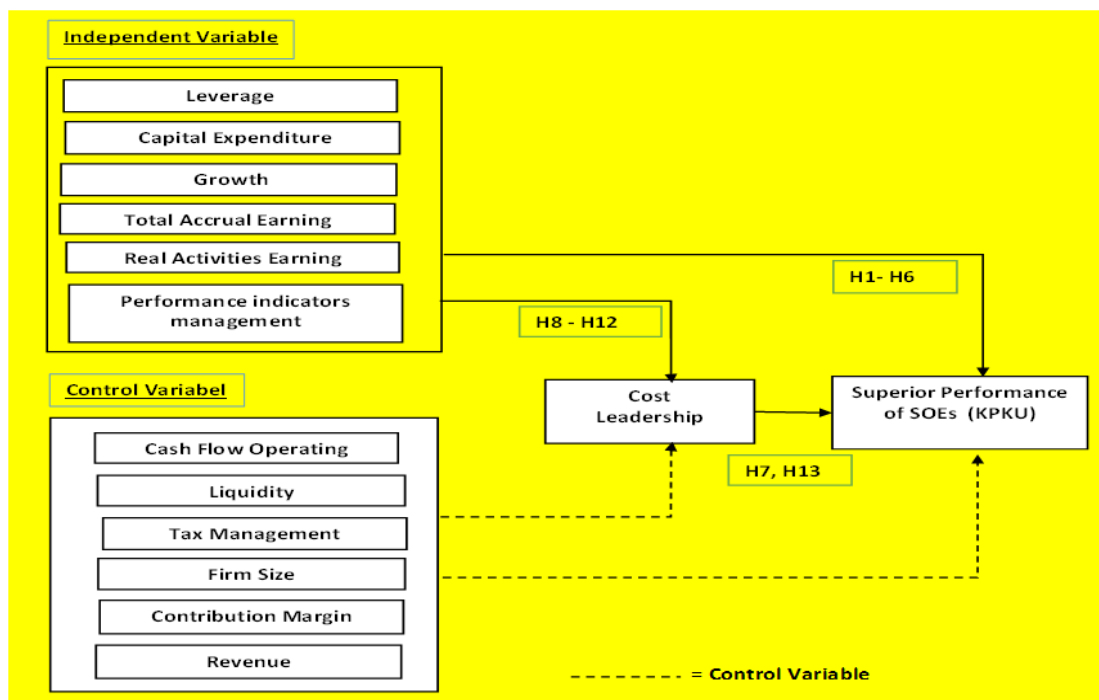

Fig. 1. Factors affecting the profitability management of SO

Data on the measurement variable using the change between the time, so that the result of processing is only 4 years old, for example, observation years 1 and 2 only there is one data ready to be processed, which changes year 1 to year 2, thus so when there is a data year 1 to year to 5, then data ready on the calculation model of regression was 4 years since year 1 is not counted, but began the year to 2 for use changes year to 2. With the measurement of data changes between time, then the amount of observation as n = 160 (40 SOEs x 5 years = 160 firm-years). Subsequently after performed calculations by checking the distribution of normal whole of data, find data that extreme outside pattern linearity or bias as much as 9 observations, so the data has been cleared from the data bias as much as 151 firm-years (n = 160-9 = 151 firm-years).

3.2 Variables and Measurement

Variable was used in the study of this can be explained more specifically based on a formula of measurement. Variable uses measurements based referees research beforehand, except for the variable cost leadership and variable indicator of management, ie using a newness or novelty as stated below this.

a) Performance flagship enterprises or KPKU, measured with the use of growth between the time of the achievement of the value of the performance, as the formula of measurement follows this.

$$KPKU_t = \frac{KPKU\,(t) - KPKU(t-1)}{KPKU(t-1)}$$

Where: KPKU is the criteria for evaluating the superior performance of the period that has been calculated based on an assessment by an independent team, and reported to BUMN.

b) Cost leadership, using a formula to approach elasticity theory and fixed using a component of sales and total assets as used in the research beforehand so that the formula can be referred to as a modified ratio of asset turnover, with the formula below this.

$$Elastisitas\ cost\ leadership = \frac{\%\,\Delta\ Penjualan}{\%\,\Delta\ Total\ Aset}$$

c) Leverage, as a comparison between the amount of debt to total equity as Oetomo HW [25] follows this.

$$Leverage = \frac{Total\ Debt\ t}{Total\ Equity\ t}$$

d) Growth, obtained from the growth earning before interest and taxes, or EBIT between time as a formula in Firnanti (2011) follows this.

$$Growth = \frac{EBIT\,(t) - EBIT\,(t-1)}{EBIT\,(t-1)}$$

e) Total accruals earnings management, the practice of management earnings were done to improve the performance of financial companies. Measurement of variables is using the approach of research Stubben [26], follows this.

$\Delta AR_{it} = \alpha + \beta_1 \Delta R_{it} + \beta_2 \Delta R_{it} \times SIZE_{it}) + \beta_3(\Delta R_{it} \times AGE_{it}) + \beta_4(\Delta R_{it} \times AGE\_SQ_{it}) + \beta_5(\Delta R_{it} \times GRR\_P_{it}) + \beta_6(\Delta R_{it} \times GRR\_N_{it}) + \beta_7(\Delta R_{it} \times GRM_{it}) + \beta_8(\Delta R_{it} \times GRM_{it}) + \mathcal{E}_{it}$

Where: AR= account receivable, R= *revenue* , SIZE= Firm size, AGE= firm age, GRR= growth rate in *revenue* s (P if positive and N if negative), GRM= gross margin , GRM_SQ= gross margin square, AR = accounts receivable.

f) Real earnings management activities, namely the practice of management of profit-based activities such as increasing production to suppress average cost, pushing the increase in sales with credit to the condition that the soft, and pressed discretionary expense. Measurement of variables is to use the approach as research Roychowdhury (2006) as follows.

$AREAL_t = ACFO_t - APROD_t + ADEXP_t$

As a matter of residual CFO, PROD, DESEX use the equation below it.

$CFO_t/A_{t-1} = \alpha_0 + \alpha_1\,(1/A_{t-1}) + \beta_1\,(S_t/A_{t-1}) + \beta_2(\Delta S_t/A_{t-1}) + \mathcal{E}_t$
$PROD_t/A_{t-1} = \alpha_0 + \alpha_1\,(1/A_{t-1}) + \beta_1\,(S_t/A_{t-1}) + \beta_2(\Delta S_t/A_{t-1}) + \beta_3(\Delta S_{t-1}/A_{t-1}) + \mathcal{E}_t$
$DISEXP_t/A_{t-1} = \alpha_0 + \alpha_1\,(1/A_{t-1}) + \beta(S_t/A_{t-1}) + \mathcal{E}_t$

Where: AREAL $_t$ = abnormal real activities period t, ACFO $_t$ = abnormal cash flow operating period t, APROD $_t$ = abnormal production costs period t and ADEXP $_t$ = abnormal discretionary expense period t. CFO $_t$ = cash flow from operating period t, PROD $_t$ = cost of production of the period t,

DISEXP $_t$ = discretionary expense period t, A $_{t-1}$ = total assets in period t-1, S $_t$ = sales period t, ΔS $_t$ = change in sales period t, ε $_t$ = error period t.

g) Indicator performance management, which is the result of achievement of work management which is measured by activity process on assessment of performance superior to the State-Owned Enterprises. Measurement of variables this is a novelty, with the formula below this.

$$IKM_t = \frac{NKPMK\ 1\ sd\ 6\ (t) - NKPMK\ 1\ sd\ 6\ (t-1)}{NKPMK\ 1\ sd\ 6\ (t-1)}$$

Where: NKPMK = the value of the performance of process management category 1 to 6, namely (1) leadership, (2) planning strategic, (3) focus on the customer, (4) measurement, analysis, and management of knowledge, (5) focus on the power of work, and (6) focus on operations.

h) Cash flow from operating, which is following the information in the financial statements. Measurement of variables is to use the formula as research Nadiah (2015) follows this.

$$\Delta CFO_t = \frac{CFO\ (t) - CFO\ (t-1)}{CFO\ (t-1)}$$

Where: CFO (t) = *cash flow from operating* period t, CFO (t-1) = *cash flow from operating* period before (t-1)

i) Liquidity, namely the ability to pay debts that fall due. The measurement of this variable uses the ratio of current assets to current liabilities as in Brigham, et al. (2007), Gitman, et al. (2012), and research by Widyagoca, et al. (2016) as follows.

$$LIQ_t = \frac{Current\ Asset\ (t)}{Current\ Liabilities\ (t)}$$

j) Tax management, namely the efforts of management are conducted to carry out the control burden of tax to improve the performance of operational companies. Tax management is measured by comparing the amount of the burden of the tax that is paid by the company period t with profit before taxation period t. Tax management conducted as research Maldi, et al. (2014) follows this.

$$TAX_t = \frac{Income\ tax\ expenses\ (t)}{Pretax\ income\ (t)}$$

Where: Income tax expenses = realization of payment of taxes that are paid by companies period t, pretax income = profit before tax period t.

k) Size, which is the size of the company which is based on the value of assets total, who presented the Report Financial. Measurement of variables is to use the formula as research earlier in Prasetyorini [13] follows this.

$$SIZE_t = Log\ (TA_t)$$

Where: TA $_t$ = total operating assets (net) in period t, or total assets minus non-operating assets.

l) Contribution margin, which is the difference between price and variable cost. The measurement of this variable uses a formula as in the book Cafferky & Jon (2014), research by Mangoting (2000) and Silvana, et al. (2014) follows this.

$$CM = P_t - VCQ_t$$

Where: P $_t$ = price per unit period t and VCQ $_t$ = variable cost per unit period t.

m) Revenue, ie total revenues were recorded in the Report of profit and loss. Measurement of revenue using the formula as research Son, et al. (2015) and Pantow, et al. (2015) follow this.

$$\Delta REV_t = \frac{\Delta Revenue\ (t) - \Delta Revenue\ (t-1)}{\Delta Revenue\ (t-1)}$$

Where: Δ *Revenue* (t) = change in revenue (revenue operations and revenues outside the operation) period t, ΔRvenue (t-1) = change in revenue (revenue operations and revenues outside the operation) period earlier.

3.3 Research Models

Research is using the model analysis regression linear multiple, with the model equations below it.

Model (1): Testing hypotheses H1 through to H7, influence directly the variables independent of the variable dependent.

$KPKU_t = \beta_0 + \beta_1 ZCL_t + \beta_2 LEV_t + \beta_3 CAPEX_t + \beta_4 GROWTH_t + \beta_5 TAEM_t + \beta_6 RAEM_t + \beta_7 IKM_t + \beta_8 CFO_t + \beta_9 LIQ_t + \beta_{10} TAX_t + \beta_{11} SIZE_t + \beta_{12} CM_t + \beta_{13} REV_t + e_t$ .... (1)

Model (2): Testing hypotheses H8 up with H13, the effect is not directly variable independent of the variable dependent with variable *intervening.*

$$ZCL_t = \beta_0 + \beta_1 LEV_t + \beta_2 CAPEX_t + \beta_3 TAEM_t + \beta_4 RAEM_t + \beta_5 IKM_t + \beta_6 CFO_t + \beta_7 SIZE_t + \beta_8 CM_t + \beta_9 REV_t + e_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots(2)$$

Where: $KPKU_t$ = superior performance period t , ZCL_t = *cost leadership* period t , LEV_t = change in *leverage* period t , $CAPEX_t$ = *capital expenditure* period t , $GROWTH_t$ = change in *earnings before interest and taxes* period t , $TAEM_t$ = *earnings before interest and taxes* period t , $RAEM_t$ = *Real activities earning management* period t , IKM_t = management performance indicator period t , CFO_t = *cash flow from operating* period t , LIQ_t = *liquidity* period t , TAX_t = tax expense period t , $sIZE_{t-1}$ = the size of the firm period t-1 , CM_t = *contribution margin* period t , REV_t = change in *revenue* against the cost of basic supply (BPP) period t , β_0 = *constant* period t , $\beta_1 .. \beta_{13}$ = c *oefficient* regression period t, e_t = error period t

4. RESULTS AND DISCUSSION

4.1 Results

The result of the calculation is based on a model analysis of studies that have demonstrated that equation regression models (1) consist of two twelve variables that significantly influence the performance of unggulBadan State-Owned Enterprises. While model (2) consists of 7 variables that have a significant effect on cost leadership. Results of the calculations are obtained, as Table 1 below it, can be used to explain hypothesis H1 to the hypotheses H13 below it.

Table 1. Factors that affect the superior performance of SOEs

Model (1): $KPKU_t = {}_0 + {}_1 ZCL_t + {}_2 LEV_t + \beta_3 CAPEX_t + \beta_4 GROWTH_t + {}_5 TAEM_t + {}_6 RAEM_t + \beta_7 IKM_t + \beta_8 CFO_t + \beta_9 LIQ_t + \beta_{10} TAX_t + \beta_{11} SIZE_t + \beta_{12} CM_t + \beta_{13} REV_t + e_t$

Model (2): $ZCL_t = {}_0 + \beta_1 LEV_t + {}_2 CAPEX_t + {}_3 TAEM_t + {}_4 RAEM_t + {}_5 SMI_t + {}_6 CFO_t + {}_7 SIZE_t + \beta_8 CM_t + \beta_9 REV_t + e_t$

		Model - 1			Model - 2		
	Predict.	Coeff.	Sig.		Coeff.	Sig.	
(Constant)		-1.517	0.024	**	5.67	0.003	***
ZCL_EIST	+	0.193	0.026	**			
LEV	-	-0.598	0.045	**	-3.61	0.002	***
CAPEX	+	0.506	0.018	**	-1.03	0.003	***
GROWTH	+	0.061	0.019	**			
TAEM	+	0.001	0.151		0.01	0.067	*
RAEM	-	-0.001	0.027	**	0.00	0.897	
IKM	+	0.472	0.002	***	-0.05	0.317	
CFO	+	0.103	0.014	**	-0.08	0.034	**
LIQ	-	-0.094	0.020	**			
TAX	-	-0.393	0.022	**			
SIZE	+	0.201	0.023	**	-0.66	0.006	***
CM	-	-0.131	0.013	**	0.19	0.014	**
REV	-	-0.058	0.094	*	0.48	0.041	**
Adj-R2		0.621			0.885		
F-Statistic		43237.0			13.0		
Perob. F. Statistic		0.004			0.006		
Durbin-Watson		1.78			2.02		
Total Obs		151			151		

Where: KPKU = superior performance of SOEs, ZCL = cost leadershipt , LEV = changes in leverage, CAPEX = capital expenditures, GROWTH = changes in earnings before interest and taxes, TAEM = total accruals earning management, RAEM = Real activities earning management, SMI = performance indicators management, CFO = cash flow from operating, LIQ = liquidity, TAX = taxes expense, SIZE = company size, CM = contribution margin, REV = revenue change

4. 2 Test Hypothesis

4.2.1 Effects of I leverage against the performance of SOEs

The level of leverage has a negative and significant effect on the superior performance of SOEs with a regression coefficient of -0.598 and a significant level of 0.045 or 4.5%. The result of the calculation tests the hypothesis that indicates that the research is to support hypothesis H7 from aspects of influence significantly, but the direction of effect was negative. In empirical, can be explained that the level of leverage is measured by a comparison of debt to total assets. The use of debt from institutions financial international confronted by the risk of an increase in the rate of exchange of foreign which led to the addition of debt though not obtain a loan new. The ratio of leverage increased due to the exchange rate of USD is getting increased, and the cash flow operations affected because of the burden of losses is hard-pressed because prices are applicable tend to be controlled by holders of shares by reason interests of the socio-economic community. Because it is, an increase in the ratio of debt to assets, or leverage it, will have an impact on the decline in performance superior to SOEs.

4.2.2 Effect of capital expenditure against the performance of SOEs

Capital expenditure (CAPEX) impacts positively on the performance of the superior state-owned enterprises on the coefficient 0506 and a level significantly 0. 018 or 1.8%. The results of testing the hypothesis that indicates that the research is to support the hypothesis H8 was filed previously, namely capital expenditure affects positively and significantly to the performance of superior SOE. The positive effect of this variable is because capital expenditure has an impact on the development of business capacity which encourages an increase in production or sales and tends to be more efficient due to more recent technological factors. Meanwhile, the effect of significant variables have on the performance of superior SOEs mainly due to capital expenditure is based on a study of feasibility based on the time value of money at the level of the internal rate of return or IRR are more substantial than the cost of capital, net present value or NPV is more substantial than zero and profitability index or benefit-cost ratio which is greater than one. This is what causes the capital expenditure variable to have a positive and significant effect

on the superior performance of SOEs, which means that the larger the scale of investment or capital expenditure made by SOEs, the more it encourages the improvement of the superior performance of SOEs. It is can be input for the government to develop a capital expenditure of SOEs by using a variety of schemes investing without aggravating the budget revenue expenditure of the state or the state budget. This is where the role of the ministry of state enterprises which represent the government as a holder of shares of SOEs to comprehensively take decisions in setting up state-owned companies into developing and achieving the target as that mandated in legislation the establishment of SOE number 19 in 2003, which is the purpose of SOE-PERSERO among others pursue profit to increase company value (article 12 point b). While the purpose of the establishment of SOE-PERUM among other organizing efforts for the benefit of the general by the principles of management companies that healthy (article 36 item 1). The purpose of establishment of SOEs in question can be achieved through the strategy and policy of state-owned enterprises a comprehensive, and backed by a team of management of SOEs feasible to manage in the optimal potential for the company in achieving the purpose intended.

4.2.3 Effect of growth on SOE performance

Changes in EBIT or Growth have a positive and significant effect on the superior performance of BUMN with a coefficient of 0.061 and a significant level of 0.019 or 1.9%. The result of the calculation test the hypothesis that indicates that the research is to support hypothesis H9. In empirical, things have happened mainly due to the increase of the EBIT impact of the increase in profitability, and increase the value of the category of the results thus encouraging an increase in performance superior to SOEs. In addition, the profitability achieved can not be separated from the criteria for the company's management processes that are getting better, so that in total the process criteria and result criteria further increase the achievement of the superior performance value of BUMN.

4.2.4 Effect of total accruals earnings management on the performance of SOEs

Total accruals earning management (TAEM) has no significant effect on the criteria for evaluating the superior performance of SOEs, with a

significant level of 0.151 or 15.1%. The result of the calculation test the hypothesis that indicates that the research is not supporting hypothesis H10. In empirical can be explained that the system loading costs and revenues that are intended to improve the performance of financial, turned out to not effectively increase the value of the performed assessment by a team of independent assessment of performance superior to SOEs. Practice eaning management with methods of earnings before interest and taxes less significant impact on the performance of superior SOE, because the value of the performance to the criteria of the process and criteria for the results determined at the time assessed by a team of assessors. It is research into information important and recommendations for the management of SOEs to avoid the practice of management profit to approach total accruals earnings management because the results do not affect significantly the achievement of the value of performance superior to SOEs.

4.2.5 Effects of real activities earnings management on the performance of SOEs

Real activities earning management (RAM) has a negative and significant effect on the criteria for evaluating the superior performance of BUMN, with a coefficient of -0.001 and a significant level of 0.027 or 2.7%. The result of the calculation test the hypothesis that indicates that the research is to support hypothesis H11 in case significant. In empirical can be explained that the practice of management profit with the approach of earnings before interest and taxes do with efforts improved its production to suppress the cost of the average total for the cost of fixed per unit are getting down, depress the cost of sales or discretionary expenses, and increase sales through ease the terms of sales and period of repayment. Policy management income can be detected by the increase in the amount of inventory in the warehouse due to increasing production and an increase in the number of accounts, thus obtaining the value of the performance that tends to be lower in the group of criteria the process and criteria for the results. The results of this study provide important information for company stakeholders and become input for management that the practice of earnings management with the Real activities earning management approach has a negative and significant effect on the superior performance of SOEs.

4.2.6 Effect indicator performance management on the performance of SOEs

Management performance indicators (IKM) have a positive and significant effect on the superior performance of BUMN, with a coefficient of 0.472 and a significant level of 0.002 or 0.2%. The result of the calculation test the hypothesis that indicates that the research is to support hypothesis H12. In empirical can be explained that indicators of management are measured by an increase in performance on the criteria of the process that significantly supports the performance results and as a whole improve the achievement of performance superior to SOEs. Policy management that supports activity in the criteria of process operations in the environmental society together begin to level the unit to an office center and implemented in an integrated at various levels of management ranging levels of management basis to the management the result is ultimately going to impact positively and exhibited significantly to the achievement of performance superior to SOEs. The results of the research have demonstrated how important indicators of the performance of the management which is poured in the form of implementation of the contract performance began management of peak until the management base and staff operations, by choosing indicators are mutually linked and support the performance of corporations, especially in the acquisition of achievement in performance superior to SOEs.

4.2.7 Effect of I leverage on cost leadership

Cost leadership (ZCL) has a positive and significant effect on the superior performance of BUMN, with a coefficient of 0.193 and a significant level of 0.026. The result of the calculation test the hypothesis that indicates that the research is to support hypothesis H13. In empirical can be explained that the cost leadership is measured by a comparison between sales to total assets or asset turnover have a role important as a variable key influence is positive to increase the performance results and the performance of the process, thus impacting positively on the achievement of performance superior to SOEs. The results of the study showed that cost leadership has a role important in generating performance of the best for the state-owned enterprises, so that should get the attention of the management to establish a target asset turnover and to give support to the

activity that is related. Policies increase the turnover of sales, along with the management of assets is optimal so that the assets together generate sales were much higher. With the increase in the ratio of cost leadership, will achieve performance that is getting increased on the criteria of the process and criteria for the results, so it can generate an increase in performance superior to SOEs.

4.2.8 Effect of capital expenditure towards cost leadership

The level of leverage (LEV) has a negative and significant effect on the intervening variable or cost leadership, with a coefficient of -3,614 and a significant level of 0.0 02. This is especially true when an increase in the amount of debt has a significant effect on an increase in interest costs which has an impact on an increase in the cost of production or selling costs. which affects the increase in prices and decrease in sales, so that it has an impact on the decline in the ratio of cost leadership or the ratio of sales to total assets or asset turnover (ATO) of SOEs.

4.2.9 Effect of growth towards cost leadership

Capital expenditure (CAPEX) has a negative and significant effect on the intervening variable or cost leadership, with a coefficient of -1.034 and a significant level of n 0.003. It is happening mainly due to an increase in investment in the form of assets fixed or assets that are not fluent will have an impact on total assets, so the effect significantly to the decline in the ratio of cost leadership or asset turnover which is defined as the ratio of sales to total assets of SOEs.

4.2.10 Effect of total accruals earnings management towards cost leadership

Earnings before interest and taxes (TAEM) has a positive and significant effect on the intervening variable or cost leadership, with a coefficient of 0.011 and a significant level of 0.067. It is happening mainly because of the practice of management of profit through the approach of earnings before interest and taxes affect an increase in sales, so the impact on the ratio of sales to total assets or asset turnover SOEs. Empirically may occur in the treatment of the recording of accounting finance on transaction accruals of income and expense that are intended to improve the performance of financial SOEs.

4.2.11 Effects of real activities earnings management towards cost leadership

Real earnings management activities (Raem) effect is not significant to the variable intervening or cost leadership, with a coefficient of 0.002 and ting kat significantly 0897. It is happening mainly because of the practice of management profit to approach real earning activities of management among others to commit an increase in production to suppress the cost of the average and increase sales with various convenience requirements of the sales credit and period of repayment. Practice management profit to approach Real earnings management activities does attempt aggressively to increase production and sales so that the necessary additional assets to meet the production of these. It is an impact on the increase of the means of production and distribution, to meet an increase in sales or production, so it does not impact significantly on cost leadership or comparison between sales and total assets of SOEs.

4.2.12 Influence indicator performance management towards cost leadership

Indicators of performance management (IKM) effect is not significant to the variable intervening or cost leadership, with a coefficient of -0051 and level signific late 0317. It is happening mainly due to an increase in the performance of the activity criteria of process management is not as an automatic increase ratio of sales to total assets or cost leadership SOEs. In empirical can be explained on the effectiveness of the achievement of the target of the performance of the activity criteria of the process, not necessarily increasing asset turnover or cost leadership SOE, because the increase in sales is influenced by various factors.

4.2.13 The influence of independent variables on the performance of SOEs through the intervening cost leadership variable

The independent variables which consist of leverage, capital expenditure, earnings before interest and taxes, total accruals earning management, real activities earning management, and management performance indicators, are influencing the superior performance of BUMN through intervening variables or cost leadership.

The regression equation for the effect of the independent variable on the intervening variable

shows that seven independent variables have a significant effect and another two independent variables that have no significant effect on cost leadership. Furthermore, to prove the influence of each independent variable on the performance (KPKU) of SOEs through the cost leadership variable with the Sobel test, the results obtained are two independent variables that have a significant effect, namely: (a) Leverage or LEV with a Z count = -3.31 or 3.31 greater than Z table 1.96, and (b) Management performance indicators or IKM with LEV with Z count = -19.99 or 19.99 greater than Z table 1.96. This means that the two independent variables have a significant effect on the performance (KPKU) of SOEs through the intervening cost leadership variable. While the other independent variables have no significant effect, which means that the intervening variable or cost leadership does not mediate the relationship between the independent variable and the performance dependent variable (KPKU) of BUMN.

4.3 Discussion

Based on the results of the calculation of the hypothesis test as described above, it is evident that the independent variables, in general, have a significant effect on the performance of SOEs, namely ten variables that have a significant effect and 3 variables that have an insignificant effect. It is consistent with the theory that is used in the research is as described in the theory of agency, ie there is a relationship contract between the manager as agent and holders of shares as principal, where managers can meet the interests of holders of shares when the performance of SOEs can be improved, while to improve the performance of the management SOEs should pay attention to the variable keys that affect the performance of the. The results of the study have found that as many as ten key variables have a significant influence on the performance of SOEs.

The results of this study indicate the relationship with stakeholder theory which is the basis of the analysis. Company management in meeting the interests of stakeholders, it is important to prepare strategies and policies to improve company performance. These strategies and policies must be directed at the key variables that affect the performance of SOEs. Research is already finding ten variable keys that affect directly the performance of SOEs, so the study is to give a contribution to the management to pay attention to the variable key that in preparing the

strategy, policies, and programs of work yearly. It is meant also to increase the performance of these, the SOE will be able to meet the interests of stakeholders, and the company will gain the support of various parties are concerned about the company mainly party investors and parties non-investors such as customers, employees, suppliers, communities around, and the government.

Test the hypothesis of the research is already done by following the framework of conceptual and analyze problems related to the direct influence of variables independent of the variable dependent performance superior to state-owned enterprises, and the effect was direct via variable intervening or cost leadership. In research, it is included variable controls to anticipate the possibility of going on the bias if not include variables such in the calculation of the effect of variable independent of the variable dependent. And to ensure the significance in mediating the effect of the independent variable on the dependent variable, this study uses the intervening variable test with the Sobel test approach.

5. CONCLUSION

The results of the analysis of the hypothesis test of this study indicate that the management performance indicator variable has a significant effect on the superior performance of SOEs. While the model analysis to test the hypothesis H1 to the hypotheses H13, used two models of analysis, ie the model (1) the effect of directly variable independent, variable control, and variable *intervening* against performance superior to SOEs, and models (2) the effect of variable independent and variable control of the variable *intervention*. Based on the model of the analysis and the results of testing the hypothesis, may be concluded following this.

Hypothesis test of the influence of direct variable independent, variable control and variable intervening against variable dependent performance superior to state-owned enterprises, found that twelve variables significantly influence against variable dependent performance superior to SOEs, namely cost leadership, leverage, capital expenditure, growth, real activities earnings management, management performance indicators, cash flow from operating, liquidity, tax expense, company size, contribution margin, and revenue. Then the rest, namely the variable total accruals earning management has no significant effect.

Hypothesis test of the influence of variables independent and variable control of the variables intervening or cost leadership obtained the result that seven variables significantly influence on cost leadership, namely, leverage, capital expenditure, total accruals earnings management, cash flow from operating, size, contribution margin, and revenues. While the other two variables have no significant effect on cost leadership, namely the real activities earning management variable, and management performance indicators. In the analysis of the factors that affect the cost leadership, not using variables independent GROWTH who di proxy with EBIT, variable control of liquidity (LIQ) and the burden of the tax (TAX) mainly because it empirically three variables are not associated with cost leadership are formulated as the elasticity percentage change in sales to the percentage change in total assets.

Hypothesis test of the influence of variables independent of the variable dependent with variable intervening or cost leadership, the result is that through Sobel test in conclusion that there are four variables were significant, namely leverage, an indicator of the performance of management, size, and revenue, which means that the variable intervening cost leadership capable of mediating the relationship four variables are against the variable dependent performance of SOEs. While the five variables other than Capex, total accruals earnings management, real activities earnings management, cash flow from operating, and the contribution margin, not significant which means that the variable intervening or cost leadership is not able to mediate the relationship between the five variables with the variable dependent performance of SOEs.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Decree of the Minister of State-Owned Enterprisesara Number: Kep-100/Mbu/2002 concerning Assessment of Health Level of State-Owned Enterprises Minister of State-Owned Enterprises.
2. Letter of the Ministry of State-Owned Enterprises, Number S- 0 8 /S.MBU/2013 January 1 6 2013 concerning: Submission of Guidelines for Determining KPIs and Criteria for Assessment of Superior Performance in State-Owned Enterprises.
3. Law of the Republic of Indonesia Number 19 of 2003 concerning State-Owned Enterprises.
4. Sofiamira NA, Haryono NA. Capital Expenditure, Leverage, Good Corporate Governance, Corporate Social Responsibility: Its Effect on Company Value. Journal of Economics and Business. 2017;20(2):191. Available:https://doi.org/10.24914/jeb.v20i2.691
5. Ainur R. ACCOUNTING: Journal of Integrative Accounting. The Effect of Tax Avoidance on Ainur Rokhmah's Company Performance. 2017;1–13.
6. Hanny H, Herawaty V, Hasnawati H. Effect of Tax Avoidance, Corporate Governance and Dividend Payout Ratio on Company Performance With Business Strategy as Moderating Variable. Journal of Masters in Accounting Trisakti. 2019;5(2):203. Available:https://doi.org/10.25105/jmat.v5i2.5075
7. Putra AP, Agustiningsih SW, Purwanto P. Factors affecting the value of state owned enterprises on the Indonesia Stock Exchange in 2011-2015. Dewantara Management. 2017;1(2):25. Available:https://doi.org/10.26460/md.v1i2.1636
8. Amir E, Guan Y, Livne G. The association of R&D and capital expenditures with subsequent earnings variability. Journal of Business Finance and Accounting. 2007;34(1–2):222–246. Available:https://doi.org/10.1111/j.1468-5957.2006.00651.x
9. Rahmiati, Sari W. Effect of capital expenditure, capital structure and profitability on firm value (Study on Manufacturing Companies Listed on the Indonesia Stock Exchange). Journal of Business Management Studies. 2013;2(1):1–14.
10. Roychowdhury S. Earnings management through real activities manipulation. Journal of Accounting and Economics. 2006;42(3):335–370.
11. Sunardi N, Hendarsah D. Factors affecting profit and its impact on firm value (Case Study on State-Owned Enterprises in the Construction Sector Listed on the Indonesia Stock Exchange in 2008-2017). SEKURITAS Journal (Stocks, Economics, Finance and Investment). 2019;3(1):1.

12. Megayanti P, Budiartha I. Effect of auditor change, company size, profit and loss and type of company on audit report lag. E-Journal of Accounting. 2016;14(2):1481–1509.

13. Fitri Prasetyorini B. The Effect of Firm Size, Leverage, Price Earning Ratio and Profitability on Firm Value. Journal of Management Science (JIM). 2013;1(1).

14. Philip G, Berger EO. Diversification'S effect om firm value. Journal of Financial Economics. 1995;37:39–65.

15. Chasanah AN, Adhi DK. Profitability, Capital structure and liquidity influence on corporate value on listed real estate companies on the IDX, 2012-20 Economic Focus. 2017;12(2):131-146.

16. Heni Y, Mulyadi, Erick. Effect of Accrual Earnings Management and Real Earnings Management Activities on Company Performance. Journal of Auditing, Finance and Forensic Accounting. 2015;03(1):1–16.

17. Muid D. The Effect of Earnings Management on Operational Performance, Stock Returns in Public Companies on the Jakarta Stock Exchange (JSX). 2007; (1996):175–198.

18. Prasetyo WS, Subehan, Harjanto S. The Effect of Earnings Management on Company Performance With Good Corporate Governance as Moderating Variable. 2017;(43):33–48.

19. Zeplin Soul Husada Tarigan. The Effect of ERP Implementation on Product Diffrentiation and Cost Leadership in Improving Company Performance (East Java Manufacturing Case Study). Journal of Marketing Management. 2009;4(1):11–15.

20. Birjandi H, Jahromi NM, Darabi SA, Birjandi M. The Effect of cost leadership strategy on ROA and future performance of accepted companies in tehran stock exchange. Research Journal of Finance and Accounting. 2014;5(7):152–159.

21. Ilyas M, Khan I, Khan N. Cost leadership strategy and financial performance: empirical evidence from textile sector listed companies of Pakistan. Journal of Business and Tourism. 2018;4(1):191–197.

22. Ciptaningsih T. Testing the effect of intellectual capital on the financial performance of Go Public SOEs in Indonesia. Journal of Technology Management. 2013;12(3):330–348. Available:https://doi.org/10.12695/jmt.2013.12.3.7

23. Salim H. Analysis of the Effect of earnings management on company profitability with good corporate governance as moderating variable: A Study on Manufacturing Companies Listed on the Indonesia Stock Exchange 2010-2012. Journal of Management. 2015;12(1):68–92.

24. Eka Rahayu Estuningsari, Nasir Widha Setyanto, RYE. Company Performance Measurement Based on Superior Performance Criteria (Kpku) BUMN (Case Study: Perum Jasa Tirta 1 Malang) Performance Measurement Based Company Superior Performance Criteria (Kpku) BUMN (Case study: Perum Jasa Tirta 1 Malang, Brawijaya University. 2013;476–487.

25. Oetomo HW. Effect of Operating Leverage and Financial Leverage on. 2010;5.

26. Stubben SR. Discretionary revenues as a measure of earnings management. Accounting Review. 2010;85(2):695–717. Available:https://doi.org/10.2308/accr.2010.85.2.695

Peer-review history:
The peer review history for this paper can be accessed here:
https://www.sdiarticle5.com/review-history/74200