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## Article

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# CEO Power and Characteristics on Firm Performance in Indonesian State-Owned Enterprises

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## ABSTRACT

Financial performance is an important indicator in a company in measuring the level of viability of the company. This study aims to analyze the effect of CEO power (proxied by CEO ownership), and characteristics (CEO educational background and work experience) on firm performance as proxied by ROA with the moderating variable of the percentage of the number of independent commissioners. The population in this study were all companies officially listed on the Indonesia Stock Exchange in 2015-2019. Then the sampling system used purposive sampling and obtained 16 state-owned companies listed on the Indonesia Stock Exchange. The results show that in model 1, CEO ownership variable has no effect on company performance, while the educational background variable has a significant negative effect and work experience variable has a significant positive effect on firm performance. In model 2, only the educational background variable has a significant effect, and the moderating variable does not strengthen the relationship between all independent variables on the company's financial performance.

**KEY WORDS:** firm performance, state-owned enterprises, CEO power, CEO characteristics

**JEL Classification:** G23, G3, G30, M1, M12.

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## 1. Introduction and Overview

The long-term sustainability of every company is one of their key objectives. Consequently, businesses must pay more attention to the process and its performance (Adams et al., 2005; Pfeifer & Wagner, 2014). In the meantime, investors analyze and forecast a company's future survival using information about the performance of the firm. Companies that operate well will reward shareholders favorably through the money that the company owns and are anticipated to be able to prosper them (Parmar et al., 2010).

Using financial analysis tools, a company's financial position is described in terms of its "firm performance," which reveals the company's favorable and unfavorable financial circumstances as they relate to its performance over a specific time period (Taouab & Issor, 2019). Probability can be used to gage a company's performance (Nenu et al., 2018). The more the profit made by the company, the better the company's performance will be. Firm performance is a very important thing because performance is a description of the company's ability to manage existing resources (Azouzi & Jarbou, 2014; Fanasch, 2019).

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On the other hand, recently there are several businesses in Indonesia, particularly state-owned enterprises (BUMN), whose firm performance tends to downturn, including PT Garuda Indonesia (Persero) Tbk. In addition, in 2018, the Chief Executive Officer (CEO) of PT Garuda Indonesia (Persero) Tbk was officially found guilty and sanctioned by several institutions such as the Ministry of Finance, the Financial Services Authority (OJK), and the Indonesia Stock Exchange (IDX) for fraudulent revenue recognition in financial statements in 2018 (Prastowo, 2019). This was supported by Tindige et al. (2020) who discovered that the financial performance of PT Garuda Indonesia (Persero) Tbk in 2015–2018 was not in sound condition since it was below industry norms. Consequently, the accounting fraud committed by the CEO of PT Garuda Indonesia (Persero) Tbk in 2018 made its stock prices declined and can be categorized as cheap stock compared to companies in the same industry during the 2011–2018 period (Arvita & Muniarty, 2020). This is shown through the one sample t-test price earnings ratio (PER) of PT Garuda Indonesia (Persero) Tbk which revealed its PER value was less than 10 suggesting the low stock prices. Therefore, it is necessary to examine the characteristics of CEOs including CEOs on the Indonesian state-owned enterprises on their respective firm performances.

Additionally, CEO power can be seen in the share ownership structure which is thought to influence the running of the company and affect the firm performance in accomplishing the company's objectives, which is to maximizing shareholder value (Villalonga & Amit, 2020). Several previous studies have indicated that the possession is one source of powers for CEO in a company that has the full responsibility for the passage of the company both in theory and practice (Livnat et al., 2021). CEO who has a fairly high percentage of ownership in the business will become a powerful decision-maker to shape every direction of the company (Mio et al., 2016). When the CEO has significant shares, the CEO can influence the selection of other boards of directors, so that he can make his position higher than other boards of directors (Saidu, 2019).

Additionally, the qualities of a CEO, including educational history and professional experience, might also impact company performance (Saidu, 2019; Wang et al., 2017). CEOs who have a high educational background and work experience are most likely to be able to acquire managers' skills who are more powerful and even possibly will be able to control the company even in the worst conditions. A study conducted by (Guenzel and Malmendier, 2020) showed that CEO education is vital for corporate decisions, and the outcomes of these decisions reflect the competence of the CEO. Similar to educational background, work experience of a CEO is inevitable because they can change their instincts. Therefore, Robinson and Sexton (1994) contended that education and experience are two inseparable qualities for a successful manager with a high entrepreneurial drive. This is because a higher level of education will increase the probability of becoming a successful entrepreneur in generating income in the sector.

However, it is different to the findings of study conducted by Hamori and Koyuncu (2014) who discovered that the experience of CEO has a detrimental impact on business performance. This is evidenced by the CEO who has experience tend to have lower performance compared to inexperienced CEO when placed in the highest executive positions in new companies in the same industry as previous companies. Hamori and Koyuncu (2014) addressed the reason why this occurred because seasoned CEOs tend to have responsibility for the downturn in corporate performance before they are appointed as CEO.

On the other hand, the board of commissioners is an important element in good corporate governance (Hussain et al., 2019; Livnat et al., 2021). The board of commissioners is an impartial body that works tasks only for the advantage of the company (Mahrani & Soewarno, 2018). Only minority shareholders can entrust the role of the board of commissioners to oversee the management of the company. The role of monitoring by the board of commissioners of directors and managers is significant in preventing directors and management from engaging in fraud so that corporate performance can be achieved optimally (Pamungkas et

al., 2018). Unlike the empirical study conducted by Noval (2015), members of the independent board of commissioners have no significant effect in moderating the ownership structure of the board of directors on company performance. This demonstrates that the percentage of independent commissioners in the firm has no bearing on the CEO's capacity to improve company performance because there is no discernable correlation between the makeup of the external board and the company's performance.

This study aims to examine the effect of the CEO power with proxy of CEO ownership variable and CEO characteristics with proxy of CEO educational background and work experience on the firm performance with the role of the independent commissioner as a moderating variable. Therefore, conceptually, this study will provide confirmation and contribution of the functions of CEO qualities on how they affect state-owned firms in Indonesia. Contextually, the managerial contribution will be seen from the use of study results by shareholders and other parties who have an interest in Indonesian state-owned enterprises to have more clear understanding.

## 2. Theoretical Background and Hypothesis Development

### 2.1. Agency Theory

Jensen and Meckling (1976) said that agency theory tackles the principal-agent dilemma in separating ownership and management of a corporation, while Fama and Jensen (1983) claimed that it is the separation of risk-taking, decision-making, and control functions of the firm. The separation between owners as principals and managers as agents who run the company will cause agency problems because each party will always try to maximize its utility function (Hill & Jones, 1992). The agent is contracted through certain tasks for the principal and has responsibility for the tasks assigned by the principal, while the principal has an obligation to pay the agent for the services rendered by the agent (Jensen & Smith, 2000). Separate ownership and control within a company is one of the factors that triggers a conflict

of interest which can be called an agency conflict (Morellec & Smith, 2007). Agency disputes that develop between parties who have conflicting interests and objectives can complicate and hinder companies from achieving positive performance in order to produce value for the firm itself and also for shareholders (Wright & Ferris, 1997). Thus, in maximizing firm value, conflicts between those two parties are inevitable

### 2.2. Leadership Theory

Leadership has been characterized by innate traits that people possess (Bernard, 1926). Furthermore, (Terry, 1960) defined leadership as an activity to influence people so that they are directed toward achieving organizational goals, while (Rosen et al., 2017) defined leadership as a group of processes carried out by someone in managing and inspiring a number of jobs to achieve organizational goals through the application of management techniques. Leadership involves the process of influencing in setting organizational goals, inspiring the behavior of followers to achieve goals, and influencing to improve the group and its culture (R. L. Hughes et al., 2012). In addition, (A. Hughes & Ginnett, 1999) argued that leadership is a process of social influence in which managers seek voluntary participation from subordinates in an effort to achieve organizational goals. With leadership carried out by a leader also describes the direction and objectives to be achieved from an organization. Therefore, it can be concluded that leadership is a way for a leader to influence subordinates with certain characteristics and backgrounds so that they can achieve the desired goals that will apparently affect the firm performance.

### 2.3. Upper Echelon Theory

The upper echelon theory is a theory related to leadership in an organization or business. This theory states that the behavior, decisions, and actions of a leader are influenced by their background, experience, and personal characteristics (Hambrick, 2018). According to the upper echelon theory, leaders tend to choose plans and strategies based on their experiences and backgrounds, so they can make better decisions than people with different backgrounds (Hambrick & Mason, 1984). This theory also states that the individual characteristics of leaders, such as values,

attitudes, and beliefs, can influence their decisions and actions. Therefore, choosing the proper leader with the background and traits relevant to the organization or corporation is very crucial to accomplish the desired organizational goals.

## 2.4. Hypothesis Development

### 2.4.1. CEO Ownership on Firm Performance

Agency problem will arise as a result of the split between owners acting as principals and managers acting as agents in the management since each party will constantly seek to maximize their utility function (Hill & Jones, 1992), so equality of interest agency has a hypothesis that when a manager is also the owner of the firm, it will tend to work according to the firm's target. Therefore, Daily and Johnson (1997) stated that ownership is a significant source of power, but it affects CEO and shareholder wealth which ultimately supports effective performance incentives (Fama & Jensen, 1983). Companies that have CEO with high share ownership tend to have higher stock market values, which proves that agency conflict can be overcome by including the CEO in the share ownership structure (Eisenmann, 2002). This is further supported by the empirical research of Adams et al. (2005) which discovered there is a favorable correlation between CEO ownership and firm performance. This is indicated by the firm's optimal performance when the ownership in the firm's decision-making is centered on CEO's decision. Hence, our first hypothesis is as follows.

H1: The CEO ownership has a positive effect on firm performance.

### 2.4.2. CEO Educational Background on Firm Performance

In accordance with the upper echelons theory, managerial background characters can influence organizational outcomes, such as strategic decisions and performance levels, to some extent. One background character is CEO education. The CEO in each firm has a different educational background because there are no definite rules regarding the educational requirements to become a CEO. However, CEO with a graduate degree in management, economics, or business is required to enhance managerial skills and

can easily make wise judgments to boost corporate performance. Various empirical studies related to CEO educational background increasing positive performance have been widely carried out and found a significant positive relationship between CEO educational background and firm performance. Ghardallou et al. (2020) discovered that education is an important element that must be considered by the CEO when making and implementing decisions for the company, while Kokeno and Muturi (2016) explained that the educational background of the CEO plays a critical role in enhancing firm performance, because it can demonstrate its connections and skills which will ultimately have an impact on firm performance. The following hypothesis is then obtained:

H2: The educational background of the CEO has a positive effect on firm performance.

### 2.4.3. CEO Work Experience on Firm Performance

According to the leadership theory by Terry (1960), leadership is about how a leader can direct and influence his/her subordinate to follow directions in accomplishing organizational goals. Thus, an employee who has special talent and good performance in the achievement of firm objectives has more advantages compared to his colleagues in a firm to be promoted as CEO (Adams et al., 2005; Geletkanycz et al., 2001). CEO coming from the firm's own employees when compared to hiring a CEO from non-companies has a tendency to further boost the firm performance well, because it is assumed that the CEO already has greater expertise and understanding about the company itself. Hamori and Koyuncu (2014) proved that one of the indicators of experienced CEO is employees who are loyal and have good performance for a long time for the firm, so that if the firm employs the employee as the CEO, it will tend to increase firm performance better than companies that have CEO from external. Additionally, Zhang and Rajagopalan (2010) stated that the advancement of employees to become CEO demonstrated that the CEO has greater authority than other executives. Thus, the following hypothesis is obtained:

H3: CEO work experience has a positive effect on firm performance.

#### 2.4.4. Moderating Role of Independent Commissioners on the Relationship Between CEO Power and Characteristics with Firm Performance

In agency theory, the more independent commissioners in a company, the better in resolving agency issues between principals and agents (Jensen & Meckling, 1976). Haniffa and Cooke (2002) proved that the more dominant the number of independent commissioners, the more power the board of commissioners will put pressure on the CEO to improve the quality of corporate disclosure. In other words, the larger number of independent commissioners can motivate the board of commissioners to act impartially and be able to defend all shareholders.

Members of the board of commissioners who do not have a relationship with the firm are expected to improve the quality of supervision carried out by the board of commissioners so that they can have a positive influence on firm performance. Additionally, they play a significant part in evaluating organization effectiveness and contributing ideas for development. However, the independent board of commissioners is not directly involved in the decision-making and daily operations of the company, as they function as

an external supervisor. Therefore, it is crucial to avoid any connections or business with the management of the company in order to retain the objectivity of the supervision carried out. Based on this description, the following hypotheses are taken:

H4: Independent commissioners strengthen the relationship between CEO share ownership and firm performance.

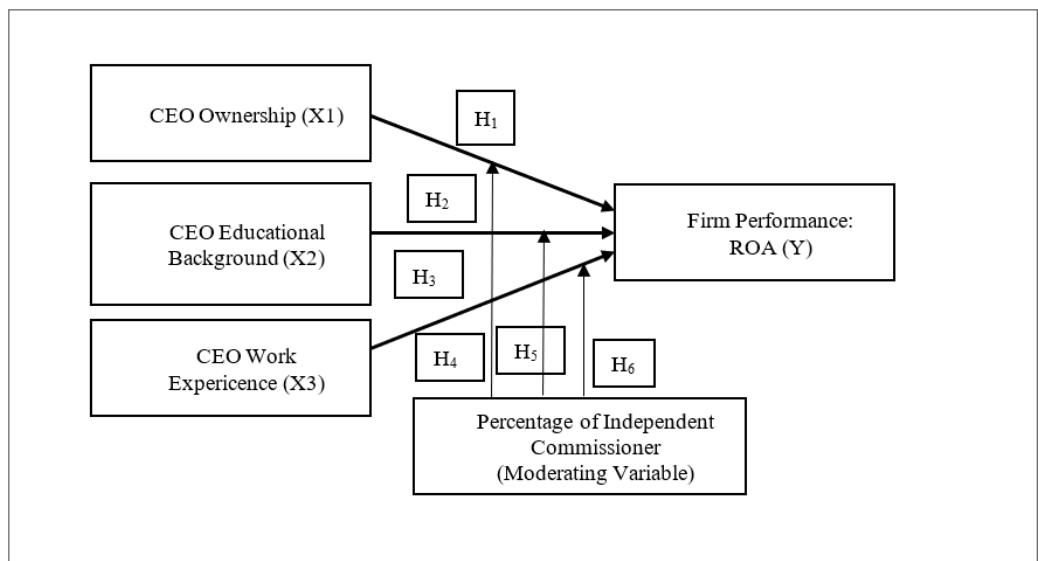
H5: Independent commissioners strengthen the relationship between CEO educational background and firm performance.

H6: Independent commissioners strengthen the relationship between CEO work experience and firm performance.

#### 2.5. Conceptual Framework

In this study, the influence of the power (proxied by CEO ownership) and characteristics of the CEO (proxied by CEO educational background and work experience) on firm performance with the role of the independent commissioner as a moderating variable is presented in the research framework based on Adams et al. (2005), Noval (2015), and Saidu (2019) study as in Figure 1.

**Figure 1**  
*Conceptual Framework*



### 3. Methodology

The data population used in this study are all companies that are officially listed in the Indonesia Stock Exchange (IDX) in 2015–2019, while the sample of this study are state-owned companies that were consistently listed on the Indonesia Stock Exchange in 2015–2019. It is first excluding state-owned businesses in the financial industry since often they have a separate regulatory regime from other companies (Organisation for Economic Co-operation and Development, 2018). The dependent variable in this study is firm performance with proxy of return on assets (ROA), while the independent variables are CEO ownership (X1), CEO educational background (X2), and CEO work experience (X3). CEO ownership is measured by percentage of the share possession in the firm where CEO leads compared to the total number of shares; CEO educational background is proxied by the level of CEO last education, with a dummy of 1 for Master and Doctoral degree and 0 for Undergraduate degree or lower; and CEO work experience is measured based on the last position before pointed as CEO whether from internal (insider experience) or external (outsider experience) company, with a dummy of 1 for insider experience and 0 for outsider experience; as well as the moderating variable of the percentage of independent commissioners to the number of commissioners.

Data analysis employed in this study is panel data regression analysis techniques. In panel data, observations are made on several subjects and periodically examined. Gujarati (1999) stated that in the panel data regression, there are three techniques of models including common effect model (CEM), fixed effect model (FEM), and random effect model (REM). To determine the fitted model of panel data regression, there are certain stages to take (Gujarati, 1999):

#### 3.1. Chow Test

Chow test is a test to determine the most appropriate fixed effect or REM to be used in estimating panel data. The hypothesis used in this test is as follows:

(a) If the Probability value >  $\alpha$  (significance level of 0.05), then H0 is accepted, so the most appropriate model to use is the CEM.

(b) If the Probability value <  $\alpha$  (significance level of 0.05), then H0 is rejected, so the most appropriate model to use is the FEM.

#### 3.2. Hausman Test

The Hausman test is a statistical test to choose whether the fixed effect or REM is the most appropriate to use. The hypothesis used in this test is as follows:

(a) If the Probability value >  $\alpha$  (significance level of 0.05), then H0 is accepted, so the most appropriate model to use is the REM.

(b) If the Probability value <  $\alpha$  (significance level of 0.05), then H0 is rejected so that the most suitable model to adopt is the FEM.

#### 3.3. Lagrange Multiplier Test

The Lagrange multiplier (LM) test is carried out when the model selected in the Hausman test is the REM. The CEM is better than the REM. The hypothesis used in this test is as follows: H0: CEM; H1: REM.

(a) If the value of the LM statistic is greater than the statistical value of the chi-square as a critical value and the probability value is significantly < 0.05, then H0 is rejected. That is, the right estimate for the panel data regression model is the REM.

(b) If the value of the LM statistic is less than the statistical value of the chi-square as a critical value and the probability value is > 0.05, then H0 is accepted. That is, the most appropriate estimate for the panel data regression model is the CEM.

#### 3.4. Fitted Panel Model

Therefore, to test hypothesis (1), hypothesis (2), and hypothesis (3), it is carried out by using Equation (1):

$$KP_{it} = c + \beta_1 KS_{it} + \beta_2 TP_{it} + \beta_3 PGL_{it} + e_{it} \quad (1)$$

where

$KP_{it}$  = ratio of firm performance through ROA in firm i and year t

c = constant

$\beta$  = coefficient of variables

$KS_{it}$  = ratio of CEO ownership in firm i and year t

$TP_{it}$  = ratio of CEO educational background at firm i and year t

$PGL_{it}$  = ratio of CEO work experience at firm i



and year  $t$

$e_{it}$  = residual value

Equation (1) can be developed by involving the moderating variable into each of its independent variables to test hypothesis (4), hypothesis (5), and hypothesis (6) which can be formulated into Equation (2).

$$KP_{it} = c + \beta_1 KS_{it} + \beta_2 TP_{it} + \beta_3 PGL_{it} + \beta_4 KS_{it} * KI_{it} + \beta_5 TP_{it} * KI_{it} + \beta_6 PGL_{it} * KI_{it} + e_{it} \quad (2)$$

where

$KS_{it} * KI_{it}$  = interaction between CEO ownership and independent commissioner in firm  $i$  and year  $t$

$TP_{it} * KI_{it}$  = interaction between CEO characteristics (CEO educational background) and independent commissioners in firm  $i$  and year  $t$

$PGL_{it} * KI_{it}$  = interaction between CEO characteristics (CEO work experience) and independent commissioners at firm  $i$  and year  $t$

## 4. Results and Discussion

### 4.1. Descriptive Statistical Tests

The dependent variable in this study is the firm performance (KP) which is represented by the ratio of ROA, while the independent variables in this study are CEO ownership (KS) in the firm he leads, CEO educational background (TP), and CEO work experience (PGL) as measured by promotion in the firm they lead, as well as the moderating variable of the percentage of independent commissioners to the number of commissioners. The results of descriptive statistical tests for all variables using the EVIEWS 10 software are as presented in Table 1 and Table 2.

Table 1 shows that the dependent variable (KP) represented by ROA has an average value of 0.037346 or 3.74% with a standard deviation of 0.070849. The maximum ROA ratio is 0.2437 or 24.37% which occurred at PT Bukit Asam (Persero)

**Table 1**  
*Descriptive Statistics of Model 1*

	KP	KS	TP	PGL
Mean	0.037346	9.94E-05	0.812500	0.437500
Median	0.030350	0	1	0
Maximum	0.243700	0.002430	1	1
Minimum	-0.27710	0	0	0
Std. dev.	0.070849	0.000381	0.392775	0.499208

Source: Processed data, 2020

**Table 2**  
*Descriptive Statistics of Model 2*

	KP	KS	TP	PGL	KS*KI	TP*KI	PGL*KI
Mean	0.037346	9.94E-05	0.812500	0.437500	8.79E-06	0.290833	0.168036
Median	0.030350	0	1	0	0	0.33	0
Maximum	0.243700	0.002430	1	1	0.000474	0.571429	0.6
Minimum	-0.27710	0	0	0	0	0	0
Std. dev.	0.070849	0.000381	0.392775	0.499208	5.36E-05	0.149933	0.198941

Source: Processed data, 2020



Tbk in 2018. This demonstrates that PT Bukit Asam (Persero) Tbk has been effective in managing its assets to generate net profit, which means that every asset invested will have a rate of return of 24.37%. Meanwhile the smallest ROA suffered by PT Krakatau Steel (Persero) Tbk in 2015 was -0.2771 or -27.71%. This demonstrates that in 2015, PT Krakatau Steel (Persero) Tbk experienced a loss on each invested asset of 27.71%.

The CEO ownership variable (KS) has an average value of 0.00000994 or 0.000994% with a standard deviation of 0.000381. However, the maximum value for CEO's share ownership variable is 0.00243 or 0.243% owned by the CEO of PT Waskita Karya (Persero) Tbk on behalf of M. Choliq in 2017, while the minimum value is 0, which is practically owned by all companies in this study. This is in accordance with the average number of CEO shareholdings in the companies they lead, which is only 0.00000994 or almost close to 0. These findings suggest that the percentage of CEO share ownership in companies in Indonesia, particularly BUMN corporations, is almost close to 0, or in other words, CEOs of BUMN companies only serve as firm managers who are required to maximize the welfare of the shareholders.

In the variable TP (CEO educational background), the average is 0.8125 or close to 1. This indicates that on average, CEOs of state-owned businesses listed on the IDX throughout the study period hold master's degree or higher. The standard deviation of the variable X2 is 0.392775. These findings suggest that state-owned businesses in Indonesia indirectly demand CEOs who have a minimum educational background of master's degree.

The PGL variable (CEO work experience) has an average value of 0.4375 with a standard deviation of 0.499208. This indicates that on average, approximately 50% of CEOs in state-owned businesses listed on the IDX come from promotions carried out by these companies.

Table 2 is a descriptive statistic for Model 2, which is the presence of a moderating variable as a strengthening of the relationship between variables. The average value for the share ownership of CEOs and independent commissioners (KS\*KI) is 0.00000879 or 0.0000879% with a maximum value of 0.000474, and a minimum value of 0. Meanwhile, the standard deviation value is 0.00000536. Additionally, the variable of educational background moderated by the proportion of

Table 3  
Correlation Variables

		Correlations			
		KS	TP	PGL	KP
KS	Pearson correlation	1	-.120	.362**	.214
	Sig. (two-tailed)		.290	.001	.057
	N	80	80	80	80
TP	Pearson correlation	-.120	1	-.157	-.377**
	Sig. (two-tailed)	.290		.163	.001
	N	80	80	80	80
PGL	Pearson correlation	.362**	-.157	1	.268*
	Sig. (two-tailed)	.001	.163		.016
	N	80	80	80	80
KP	Pearson correlation	.214	-.377**	.268*	1
	Sig. (two-tailed)	.057	.001	.016	
	N	80	80	80	80

Note: \*\*.Correlation is significant at the 0.01 level (two-tailed); \*.Correlation is significant at the 0.05 level (two-tailed).

independent commissioners (TP\*KI) has an average of 0.290833 or 29.08% and a standard deviation of 0.149933. The maximum value is 0.571429 and the minimum value is 0, and the middle value is 0.33. As for the work experience variable linked to the moderating variable, the proportion of independent commissioners (PGL\*KI) has an average value of 0.168036 or 16.8%, a standard deviation of 0.198941, a maximum value of 0.6, and minimum value of 0.

Furthermore, Table 3 explained the correlation among variables. Variable KS (X1) has a significance (two-tailed) of 0.057 or greater than significance level of 0.05. This indicates that KS does not have any correlation to variable KP (dependent variable). However, significance levels for both variable TP (X2) and PGL (X3) are 0.001 and 0.016, respectively, indicating that they have correlation to KP as dependent variable.

## 4.2. Determination of Panel Data Model Analysis Techniques

### 4.2.1. Chow Test

The first step in establishing the analysis method of the panel data model is through the fixed specification effect. The test conducted is the Chow test which aims to determine whether the model should use fixed effects or common effects.

Based on the findings in Table 4, it is known that the chi-square probability for Model 1 is 0.0000 so that  $H_0$  is rejected. Then the FEM should be used in Model 1. Meanwhile, the probability of chi-square for Model 2 is 0.0001 so that  $H_0$  is rejected, so the FEM should be applied in Model 2.

### 4.2.2. Hausman Test

This test aims to determine whether the random effect is better to use than the FEM. If the result of the chi-square probability is greater than 5%, it is preferable to use REM. The results of the estimation using random specification effects for the two models are as follows.

The result of the chi-square probability as presented in Table 5 for both models is larger than 5%, so it can be said that Model 1 and 2 should employ random effects.

### 4.2.3. Lagrange Multiplier (LM) Test

This test aims to determine whether the CEM is better to use than random effects. With degrees of freedom, a number of independent variables, and a significant threshold of 5%, if the estimated LM is bigger than the LM table, it is preferable to utilize the REM. The results of the estimation using random specification effects for the two models are as Table 6.

Next, the LM value generated at each model can be compared with its chi-square value table which is displayed in Table 7.

## 4.3. Data Panel Analysis

From the specification tests that have been carried out, Model 1 and Model 2 should employ estimates with random effects. In the previous test, Model 1 has passed the classical assumption test, so that the estimation results can be consistent and unbiased. The estimation outcomes of panel data regression Model 1 are as Table 8.

Thus, Model 1 is constructed as follows:

$$KP_{it} = 0.062684 + 12.7419X1_{it} - 0.047669X2_{it} + 0.027718X3_{it} + e_{it}$$

From the findings of Table 8, the probability value (F-statistic) for Model 1 is 0.003142 which is less than the alpha significance value (0.05). This indicates that panel data Model 1 is feasible to use. Based on the results of panel data Model 1, the percentage of CEO ownership has no impact on company performance because the probability value is greater than alpha, which is 0.169114. Therefore, hypothesis 1 which states that there is a positive and significant influence on the percentage of share ownership on company performance is rejected. The rejection on  $H_1$  can be understood as most CEOs of Indonesian state-owned enterprises do not own shares of the company they run, so CEO ownership variable cannot affect firm performance.

Furthermore, the educational background has a significant negative effect on company performance. The probability value is smaller than alpha with a coefficient of  $-0.047669$  which suggests that if the CEO educational background is increased by one unit, the firm performance will decline by

**Table 4**  
*Results of Redundant Fixed Effect-Likelihood Ratio Model 1 and Model 2*

Effect test	Probability	
	Model 1	Model 2
Cross-sectional F	0.0000	0.0001
Cross-sectional chi-square	0.0000	0.0000

Source: Output of EViews 10

**Table 5**  
*Hausman Test Results for Model 1 and Model 2*

Effect test	Chi-sq. statistic	Probability	
		Model 1	Model 2
Cross-sectional random	2.268334	0.5186	0.8018

Source: Output of EViews 10

**Table 6**  
*LM Test Calculation Results for Model 1 and Model 2*

Model	n	T	The average number of squared residuals	Total of squared residuals	LM
1	80	5	0.321617	0.031392	20.74187
2	80	5	0.310806	0.029268	18.33934

Source: Output of EViews 10

**Table 7**  
*Lagrange Multiplier Test Results for Model 1 and Model 2*

Model	LM	Chi-sq. statistic (df = 3; 5%)
1	20,74	7,81
2	18.33	12,59

Source: Output of EViews 10

**Table 8**  
*Estimation Result for Model 1*

Variable	Coefficient	t-statistics
C	0.062684***	3.037394
KS	12.74190	0.169114
TP	-0.047669***	-2.805888
PGL	0.027718***	1.954472
Adjusted R-squared	0.132488	
F-statistics	5.021690	
Prob(F-statistics)	0.003142	

Source: Output of EViews 10

Note: \*Significant on 10% (Prob one tail); \*\*Significant on 5% (Prob one tail); \*\*\*Significant on 1% (Prob one tail)

0.047669. However, these results indicate that hypothesis 2 which stated that the level of education has a significant positive effect on company performance is rejected.

The CEO job experience variable has a significant positive effect on company performance, with a probability level of alpha which is smaller than the 5% confidence level. The direction of the coefficient of 0.027718 indicates that if the CEO work experience is increased by one unit, the firm performance will increase by 0.027718, and vice versa, if the CEO work experience is decreased by one unit, it will decrease the firm performance by 0.027718. These findings indicate that hypothesis 3, which claimed that there is a favorable and significant impact between work experiences on business performance, is accepted.

Consequently, the construction for Model 2 is as follows:

$$KP_{it} = 0.06612 + 18.78175X1_{it} - 0.120444X2_{it} + 0.078675X3_{it} - 45.71941X1_{it} * X0_{it} + 0.193773X2_{it} * X0_{it} - 0.137789X3_{it} * X0_{it} + e_{it}$$

Table 9 shows the estimation results in Model 2, where the addition of the moderating variable of the percentage of the number of independent com-

missioners has no effect on increasing the relationship of each independent variable to the dependent variable (firm performance). These findings show that the percentage of independent commissioners in the company does not impact the company's decision-making, so that the effect on firm performance is not significant. Therefore, hypotheses 4 to 6 which stated that the moderating variable can strengthen the relationship of each independent variable to the dependent variable are rejected.

## 5. Discussion

### 5.1. Effect of CEO Ownership on Firm Performance (H1)

The first hypothesis in this study states that the degree of CEO ownership affects the success of BUMN companies. The results of this study support the results of research conducted by Noval (2015) on manufacturing companies listed in the Indonesia Stock Exchange in 2009 to 2011 which measured the level of CEO share ownership on company performance with independent commissioners as a moderating variable. In this study, the findings indicated that CEO ownership has no discernable impact on company operation, meaning that management is still acting to maximize its

**Table 9**

*Estimation Result for Model 1*

Variable	Coefficient	Probability
C	0.066120***	2.979732
KS	18.78175	0.848647
TP	-0.120444***	2.044395
PGL	0.078675	1.309958
KS*KI	-45.71941	-0.359903
TP*KI	0.193773	1.280518
PGL*KI	-0.137789	-0.877342
Adjusted R-squared	0.119942	
F-statistic	2.794474	
Prob (F-statistics)	0.016731	

Source: Output of EViews 10

Note: \*Significant on 10% (Prob one tail); \*\*Significant on 5% (Prob one tail); \*\*\*Significant on 1% (Prob one tail)

own interests which can harm other shareholders. In addition, from correlation analysis (Table 3), it is confirmed that insignificance as both CEO ownership and firm performance do not have correlation.

Bao and Lewellyn (2017) in their research also discovered that the factors of managerial stock ownership do not affect the cost of the agency, so it does not affect the success of the business. This may be because the management who owns a small number of shares (minority) will make other shareholders try to monitor and influence management decision-making. This showed that the company's success is not significantly impacted by the proportion of CEO ownership

### **5.2. Effect of CEO Educational Background on Firm Performance (H2)**

The results of the second hypothesis in this study state that CEO educational background has a positive effect on firm performance with a coefficient value of  $-0.047669$ . This means that on average assuming all other factors remain unchanged, every one unit increase in CEO educational background will have an impact on decreasing the performance of BUMN companies by  $0.047699$ .

The results of the study support the research conducted by Saidu (2019) on companies listed on the Nigerian Stock Exchange which stated that the level of education of a CEO in a company affects the firm performance as measured by the ROA ratio. However, in this study, the level of education has a positive effect on company performance, or in other words, the higher the educational background of a CEO, the higher the CEO's connection, so that it will directly have an impact on improving the company's performance.

The findings of this study have a significant and negative effect on educational background, which is different from previous studies which have a positive effect (Kokeno & Muturi, 2016; Saidu, 2019). This means that this study discovered a surprising result where the influence of the level of education on firm performance has the opposite direction. The cause of this may be in the ranks of the leadership of state-owned companies, even though the CEO has a high level of education but cannot make the right company decisions so that it actually re-

duces the firm performance because there are other factors that are not in this study.

### **5.3. Effect of CEO Work Experience on Firm Performance (H3)**

The third hypothesis in this study states that CEO work experience has a beneficial impact on the performance of BUMN companies with a variable coefficient of  $0.078675$ . This means that, on average, if the CEO work experience variable increases by one unit, the firm performance increases by  $0.078675$ , and other variables are considered constant.

The findings of this study are consistent with those of research conducted by Adams et al. (2005) which found that the appointment of a CEO who comes from the promotion of the company's position can provide greater authority in decision-making so as to boost business performance. Zhang and Rajagopalan (2010) also stated that CEOs who come from promoted company employees can further improve company performance. In other words, when a CEO is hired based on promotion compared to appointing a CEO from another company, it may be claimed that the employee has a higher caliber of work compared to other employees.

Rahayu (2017) also argued that a promotion will significantly affect the performance of employees and increase work motivation, which was conducted on 40 employees of PT Garuda Metalindo. Job experience and company performance have a very strong relationship, and the provision of a good promotion will be able to improve the performance of employees at work (Haryono et al., 2020).

### **5.4. Independent Commissioners Strengthen the Relationship Between ceo Ownership and Company Performance (H4)**

The fourth hypothesis in this study stated that the percentage of independent commissioners can strengthen the relationship between CEO ownership (KS) variables on company performance. From Table 8, the significance value of the  $KS*KI$  variable is  $0.72$ . The significance value is greater than  $0.05$ , so the fourth hypothesis in this study is rejected. Thus, it may be argued that the proportion of independent commissioners cannot strengthen or

moderate the CEO ownership variable on the performance of state-owned enterprises.

The results of this study support the results of research conducted by Noval (2015) which found that independent commissioners do not have a moderating effect on the relationship between CEO ownership and company performance. This demonstrates that the percentage of independent commissioners in the organization has no effect on the CEO's ability to increase company performance.

### ***5.5. Independent Commissioners Strengthen the Relationship Between the CEO Educational Background and Firm Performance (H5)***

The fifth hypothesis in this study stated that the percentage of independent commissioners can strengthen the relationship between the CEO educational background (TP) variable on firm performance. From Table 8, the significance value of the TP\*KI variable is 0.2044. The significance value is greater than 0.05, so the fifth hypothesis in this study is rejected. Thus, it can be concluded that the proportion of independent commissioners cannot strengthen or moderate the CEO educational background variable (X2) on the performance of state-owned enterprises.

These results mean that the percentage of independent commissioners cannot strengthen the relationship between CEO educational background and company performance. This demonstrates that the influence of independent commissioners in influencing educational background is not crucial for enhancing corporate performance.

### ***5.6. Independent commissioners strengthen the relationship between the CEO work experience and company performance (H6)***

The sixth hypothesis in this study stated that the percentage of independent commissioners can strengthen the relationship between CEO work experiences (PGL) variable on firm performance. From Table 8, the significance value of the PGL\*KI variable is 0.3832. The significance value is greater than 0.05, so the sixth hypothesis in this study is rejected. Thus, it can be concluded that the proportion of independent commissioners cannot strengthen or moderate the CEO work experience

variable (X3) on the performance of state-owned enterprises.

Therefore, independent commissioners do not play a role in the relationship between CEO work experience and company performance. This is further supported by the findings of study done by Bukhori and Raharja (2012) which did not find a significant connection between the percentage of independent commissioners, employee work experience, and corporate success.

## **5. Conclusion**

This study aims to examine the effect of CEO power (proxied by CEO ownership) and characteristics (CEO educational background and work experience) on company performance with the role of independent commissioners as moderating variables. The findings of the investigation indicate that the CEO stake in the company has no significant impact on the performance of state-owned enterprises listed on the IDX. These results indicate that the percentage of the number of shares owned by the CEO is relatively very small, so it tends to have no impact on the firm performance and they both do not have any correlation. Then, the educational background has a significant negative effect on the performance of state-owned enterprises listed on the IDX. This result is a new finding, where the effect of educational background on company performance is significantly negative. If the company has a CEO with a higher educational background, such as master's or doctorate degree, it will cause the firm performance to suffer. Meanwhile, the CEO work experience as measured by the CEO work before becoming CEO or through promotions in the company's internal position (insider experience) has a significant positive effect on the performance of state-owned companies listed on the IDX. These findings suggest that if the organization promotes people who have quality and potential above the average of other employees, the firm performance will increase compared to if the company points out a CEO from other similar companies.

This study also tested the percentage of independent commissioners to the total commissioners as a moderating variable. The findings of statistical analysis showed that it had no impact on strength-

ening the link between the independent and dependent variables. This shows that the proportion of independent commissioners in the company has no effect on the CEO's ability to improve firm performance.

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