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Do CEO characteristics moderate the link between CEO power and firm performance?

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Abstract

This study investigated the impact of CEO power on firm performance. Additionally, the moderating role of CEO age, gender and education on the relationship between CEO power and firm performance was investigated. This study uses panel data from the Indonesia Stock Exchange in the 2018-2022 period. This study utilized a purposive sampling technique to obtain 320 observations. The findings showed that the level of CEO power did not have a significant influence on firm performance. CEO gender was proven to have a positive influence in moderating the relationship between CEO power and firm performance (Tobin's Q).

JEL classifications: G30, G32, G34

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1. Introduction

In the current era of globalization, business competition is facing increasingly fierce competition, presenting new challenges for business people who must have the ability to manage their businesses to remain competitive. Many companies have difficulty in competing with their competitors. To face the dynamics of business competition, companies are expected to be able to improve their performance and management. Therefore, the existence of a leader who can direct the company toward achieving its goals is very important.

As leader of company, the Chief Executive Officer (CEO) has a key role in shaping policy and strategy. CEOs have great responsibility in making operational decisions and they have a significant impact on the formulation of strategic decisions to improve firm performance (Wu et al., 2011). Finkelstein (1992) stated that there are four factors that influence the calculation of CEO power, namely ownership power which was related to the CEO power based on share ownership and role as founder, structural power which is related to the CEO power based on his position in the company hierarchy, expert power which comes from experience and prestige power which involves the CEO power that arises from positive perceptions of his reputation.

A CEO, whether male or female, has responsibility to make decisions and take actions that will ultimately affect the firm performance. Some experts argued that CEO gender can influence the style or characteristics of decisions made. Research by Tullah (2017) and Khan & Vieito (2013) showed a positive correlation between CEO gender and firm performance. However, different findings were revealed by Gavious et al. (2012), Peni (2014), and Jadiyappa et al. (2019), who found a significant negative impact on firm performance with female CEOs. Study by Ibrahim and Ahmad (2017) concluded that CEO gender has no correlation with organizational performance.

Based on research by Emestine and Setyaningrum (2019), it was found that CEO age has a positive and significant impact on company success. Older CEOs tend to have broader work experience, both inside and outside the company (Saidu, 2019; Peni & Vähämaa, 2010). However, these findings are different from the results of research by Setiawan and Gestanti (2019), Amran et al. (2014) as well as Diks et al. (2016), which showed that CEO age had a significant influence on business performance. Research by Liu (2020) even found that CEO age had no effect on company success. According to Gottesman and Morey (2006), one of the key qualities of a successful CEO was ability to combine and use various types of knowledge. This research suggested that the types of information processing capabilities associated with higher intelligence could improve firm performance.

Another crucial factor in determining company success is the CEO educational background. Research by Erlim and Juliana (2017), Saidu (2019) as well as Setiawan and Gestanti (2019) found that the CEO education level was positively and significantly related to firm performance. This means that the higher the CEO education level, the higher the firm performance that could be achieved (Erlim & Juliana 2017). However, research by Ying and Mei (2014) showed a negative and significant relation between CEO education level and firm performance. Meanwhile, research by Ofe (2012) as well as Gottesman and Morey (2006) found that there was no significant relation between CEO's education level and firm performance.

Based on the above explanation, several CEO characteristics on firm performance show different results. Several studies found different findings, resulting in a research gap, and thus motivated researchers to conduct more research on this topic. To the best of the researcher's knowledge, there has been no research that combined CEO age, CEO gender and CEO education as moderating variables in a study; hence, this research is new, whereby CEO age, CEO gender, and CEO education were used as moderating variables on CEO power toward firm performance.

2. Literature review and hypotheses developlement

2.1. Upper echelons theory

According to Saputri (2021), upper echelons theory emphasizes that top managers have a role as the organizational strategic decision makers and their decisions have a direct impact on the organization. Leaders are influenced by their individual abilities, beliefs and characteristics so that the decision-making and responses given by each organizational leader can vary.

This theory highlights several specific characteristics, such as age, functional track record, career experience, educational background, socioeconomic roots, group characteristics and financial conditions. The executives in charge of an organization have characteristics that characterize what they do and how they do it overall. In context of leader's responsibility for company strategic functions, the main role is played by the CEO, whereby managers report directly to the CEO.

A CEO, influenced by his skills, beliefs and personal characteristics, will make unique decisions and responds. Several personal characteristics, including the CEO gender, CEO education and CEO age have an influence on the dynamics of decision-making and firm performance (Suherman et al., 2023).

2.2. Hypotheses development

The CEO power is important for his ability in maintaining control over the company. Executives can only influence company outcomes if they have influence over important company decisions. According to Combs et al. (2007) CEO power refers to the CEO's potential to leverage ownership or position to pursue his own goals.

The greater the share ownership, the greater the CEO power in leading the company. If a CEO owns shares in the company, then his position is the same as other capital owners. With his abilities and strengths the CEO can try to increase company value which will improve firm performance (Hamidlal & Harymawan, 2021).

Research by Alifah and Harto (2021) showed that CEO ownership improved firm performance as measured by ROA. In addition, Vo and Nguyen (2014) found that CEO ownership had a different influence at each range of ownership. CEO ownership has a positive effect on firm performance when the percentage of his shares is in the range of 0% and 30%. Finally, Hamidlal and Harymawan (2021) as well as Sudana and Dwiputri (2018) found that CEO Power and CEO ownership indicators had a positive and significant effect on company value as proxied by Tobin's Q. With the results of this research, the following hypothesis was formulated:

H1: CEO power has a positive effect on firm performance.

Ali et al. (2022) showed that CEO attributes (age, gender and education) significantly moderated the relation between CEO duality and firm performance. Curea et al. (2022) showed that CEO gender had a moderating effect on the relation between intangible assets and firm performance. The interaction term between CEO gender and intangible assets was positive, meaning that when the investment in intangible assets grows in companies managed by women, the financial performance had an increasing trend. This showed that gender had a moderating effect on the relation, considering gender as a moderating factor. Consequently, with the results of this research the following hypothesis was formulated:

H2: CEO gender moderates the influence of CEO power on firm performance

Research by Ali et al. (2022) showed that CEO attributes (age, gender and education) significantly moderated the relation between CEO duality and firm performance. Research by Hsu et al. (2013) showed that CEO age had a negative moderating effect on the relation between internationalization and influence of firm performance. Chu et al. (2023) showed that the

negative impact of CEO power was exacerbated by CEOs who were younger, more competent, and overconfident. Therefore, with the results of this research the following hypothesis was formulated,

H3: CEO age moderates the influence of CEO power on firm performance

Age, gender and education significantly moderate the relation between CEO duality and firm performance (Ali et al., 2022). Hsu et al. (2013) estimated that the CEO education level had a positive moderating impact on the relation between internationalization and firm performance. With the results of this research, the following hypothesis was formulated,

H4: CEO education moderates the influence of CEO power on firm performance

3. Research methods

3.1. Sample

Researchers used secondary data in this research. The secondary data used were from annual reports of companies listed on the Indonesia Stock Exchange. The research sample consisted of companies listed in the Kompas100 Index during the second semester of 2022. The purposive sampling method was used to determine the research sample (see Table 1). In the purposive sampling method, samples were taken according to set by the researcher (Cooper & Schindler, 2014).

Table 1. Sample selection

	Sample criteria	Total
1	Companies included in the Kompas100 Index on the Indonesia Stock Exchange 2022 Semester II	100
2	Companies registered on the IDX after 2017.	(14)
3	Companies that were delisted during the observation year.	(0)
4	Company financial reports that are not presented in Rupiah or in Dollars/USD	(15)
5	The company has complete data regarding research variables for a period of 5 (five) years from 2018 to 2022.	(7)
6	Sampel	64
7	Number of observations	320

3.2. Operationalization of research variables

This study included three types of variable: dependent variable, independent variable, and control variable. Table 2 below shows the variable operationalization.

3.3 Analysis method

Panel data regression analysis is a statistical method that combines information from time series data with cross-sectional data. Time series data included observations at different points in time, such as daily, monthly or yearly. The panel data regression equation models in this research were as follows:

$$FPit = \beta_0 + \beta_1 CPOW + \beta_2 CAGE + \beta_3 CGEN + \beta_4 CEDU + \beta_5 FS_{it} + \beta_6 FA_{it} + \beta_7 DER_{it} + e_{it} \quad (1)$$

$$FPit = \beta_0 + \beta_1 CPOW + \beta_2 CAGE + \beta_3 CGEN + \beta_4 CEDU + \beta_5 CPOW*CAGE + \beta_6 CPOW*CGEN + \beta_7 CPOW*CEDU + \beta_8 FS_{it} + \beta_9 FA_{it} + \beta_{10} DER_{it} + e_{it} \quad (2)$$

where:

β_0 = Intercept
β_1 - β_{10} = Slope
FP = Firm performance (ROA, ROE, Tobin's Q)
CPOW = CEO power (CPOW1, CPOW2)
CAGE = CEO age
CGEN = CEO gender
CEDU = CEO education
FS = Firm size
FA = Firm age
DER = Debt to equity ratio
e = Regression error
it = i-th object and t-th time

Table 2. Variable definition

Variable	Definition	Formula	Data form
Dependent variables			
ROA	Return on asset	$\frac{\text{Net income}}{\text{Total asset}}$	Continuous
ROE	Return on equity	$\frac{\text{Net income}}{\text{Total equity}}$	Continuous
Tobin's Q	Tobin's Q performance measure	$\frac{\text{Market value of stock} + \text{debt}}{\text{Total asset}}$	Continuous
Independent variables			
CPOW1	CEO power	Dummy 1 if the CEO owns company shares, 0 otherwise	Binary
CPOW2	CEO power	Number of years the CEO has served at the company	Continuous
Moderating variables			
CAGE	CEO age	CEO age in the financial reporting years	Continuous
CGEN	CEO gender	1 if the CEO is female, 0 if the CEO is male	Binary
CEDU	CEO education	1 if the CEO has completed postgraduate studies (S2/S3), 0 if others	Binary
Interaction variables			
CPOW1*CAGE		Interaction between CEO power1 & CEO age	
CPOW1*CEDU		Interaction between CEO power1 & CEO education	
CPOW1*CGEN		Interaction between CEO power1 & CEO gender	
CPOW2*CAGE		Interaction between CEO power2 & CEO age	
CPOW2*CEDU		Interaction between CEO power2 & CEO education	
CPOW2*CGEN		Interaction between CEO power2 & CEO gender	
Control variables			
FA	Firm age	Ln (Firm age measured in years from the date of establishment)	Continuous
FS	Firm size	Ln (Total asset)	Continuous
DER	Debt to equity ratio	$\frac{\text{Total debt}}{\text{Total equity}} \times 100\%$	Continuous

4. Results

4.1. Descriptive statistics

This research involved descriptive statistical analysis of research variables. The function of descriptive statistical analysis was to present a comprehensive picture of the data that were collected. The parameters used included average (mean), median, standard deviation, maximum value and minimum value. Information on the results of descriptive statistical tests

for 320 observations during the 2018-2022 period in the research sample are found in Table 3.

Table 3. Descriptive statistics

	Obs	Mean	Sdv	Median	Min	Max
ROA	320	0.06	0.09	0	-0.3	0.45
ROE	320	0.13	0.34	0	-1.5	3.62
Tobin's Q	320	1.94	2.28	1	0.16	18.33
CPOW1	320	0.48	0.50	0	0	1
CPOW2	320	6.11	7.47	4	0	39
CGEN	320	0.06	0.23	0	0	1
CEDU	320	0.46	0.50	0	0	1
CAGE	320	56.49	8.57	57	33	83
FS	320	30.98	1.55	31	26.48	35.23
FA	320	3.64	0.53	4	2.08	4.84
DER	320	1.88	3.28	1	-34.93	16.08

4.2. Multicolinearity test

Multicollinearity test analysis is a statistical method used to determine whether there is a significant correlation between two or more independent variables in the context of panel data regression.

Table 4. Pearson correlation

	CPOW1	CPOW2	CAGE	CGEN	CEDU	FA	FS
CPOW2	0.06						
CAGE	-0.12**	0.32***					
CGEN	-0.20	-0.10	-0.00				
CEDU	0.00	-0.11**	-0.04	0.04			
FA	-0.17***	-0.08	0.07	-0.00	0.26***		
FS	0.19***	-0.13**	0.14**	-0.06	0.01	0.43***	
DER	0.07	-0.09	0.10*	-0.02	0.18***	0.21***	0.32***

***p<0.01, ** p<0.05, *p<0.1 show statistical significance at the 1%, 5% and 10% levels.

From Table 4, it can be seen that the value of each observed independent variable was <0.8. This showed that there was no significant correlation between the variables in this study. Therefore, it can be concluded that there is no indication of multicollinearity in the analyzed data.

4.3. Results

Hypothesis determination was carried out with a predetermined α significance level (0.01; 0.05; 0.1). The analysis results in Table 5 revealed that the regression coefficients for CEO power as measured by CPOW1 (share ownership) were 0.01 and -0.02, with the probability values for each model being 0.61 and 0.82, all of which exceeded α (0.1). Therefore, it was concluded that CPOW1 did not have a significant and positive relation with ROA.

The analysis results in Table 5 revealed that the regression coefficients for CEO power as measured by CPOW1 (share ownership) were 0.01 and -0.02, with the probability values for each model being 0.61 and 0.82, all of which exceeded α (0.1). Therefore, it was concluded that CPOW1 did not have a significant and positive relation with ROA.

The CEO power regression coefficients measured by the CEO's tenure since being appointed by the company (CPOW2) were 0.00 and 0.01, with probability values being 0.67 and 0.48, all of which exceeded the probability value of more than α (0.1). Therefore, it was

concluded that CPOW2 did not have a significant and positive relation with ROA. This showed that CPOW2 did not have a significant effect on company performance, as measured through ROA.

Table 5. ROA regressions

Variables	ROA			
	ROA1	ROA1Moderated	ROA2	ROA2Moderated
Constant	-0.76	-0.76	-0.77	-0.76
	(0.10)	(0.10)	(0.10)	(0.12)
CPOW1	0.01	-0.02		
	(0.61)	(0.82)		
CPOW2			0.00	0.01
			(0.82)	(0.48)
CGEN	-0.01	-0.01	-0.01	-0.05
	(0.72)	(0.88)	(0.72)	(0.25)
CEDU	0.02	0.02	0.02	0.01
	(0.38)	(0.33)	(0.34)	(0.66)
CAGE	0.00	0.00	0.00	0.00
	(0.13)	(0.18)	(0.15)	(0.12)
FA	-0.28***	-0.29***	-0.29***	-0.27***
	(0.00)	(0.00)	(0.00)	(0.01)
FS	0.05***	0.06***	0.06***	0.05***
	(0.00)	(0.00)	(0.00)	(0.00)
DER	0.00	0.00	0.00	0.00
	(0.91)	(0.91)	(0.91)	(0.88)
CPOW1*CAGE		-0.02		
		(0.67)		
CPOW1*CEDU		-0.01		
		(0.62)		
CPOW1*CGEN		-0.02		
		(0.78)		
CPOW2*CAGE				-0.00
				(0.40)
CPOW2*CEDU				0.00
				(0.77)
CPOW2*CGEN				0.02
				(0.16)
Observations	320	320	320	320
Firms	64	64	64	64
F-test	0.00	0.00	0.00	0.00
R Squared	0.65	0.66	0.65	0.66

***p<0.01 shows statistical significance at the 1% level.

The CEO age regression coefficients measured by the age of the CEO (CAGE) as moderation were 0.00 and -0.00, with probability values being 0.67 and 0.40, all of which were more than α (0.1). Therefore, it was concluded that CGEN could not moderate the relation between CEO power and ROA. The CEO education regression coefficients measured from the CEO education level (CEDU) as moderation were -0.01 and 0.00, with probability values of 0.62 and 0.77, all of which were more than α (0.1).

Therefore, it was concluded that CGEN could not moderate the relation between CEO power and ROA. The CEO gender regression coefficients measured from the CEO being a woman (CGEN) as moderation were -0.02 and 0.02, with probability values being 0.78 and 0.16, all of which were more than α (0.1). Therefore, it was concluded that CGEN cannot moderate the relation between CEO power and ROA.

The CEO power regression coefficients measured by the CEO's tenure since being appointed by the company (CPOW2) were 0.00 and 0.00, with probability values being 0.58 and 0.99, all of which exceeded the probability value of more than α (0.1). Therefore, it was concluded that CPOW2 did not have a significant and positive relation with ROE. This showed that CPOW2 did not have a significant effect on company performance, as measured through ROE.

Table 6. ROE regressions

Variables	ROE			
	ROE1	ROE1Moderated	ROE2	ROE2Moderated
Constant	-2.62	-2.36	-2.37	-2.74
	(0.17)	(0.15)	(0.15)	(0.12)
CPOW1	0.07	0.30		
	(0.24)	(0.36)		
CPOW2			0.00	0.00
			(0.58)	(0.99)
CGEN	0.08	0.10	0.08	0.06
	(0.48)	(0.48)	(0.49)	(0.71)
CEDU	-0.02	0.00	-0.01	-0.04
	(0.71)	(0.99)	(0.81)	(0.57)
CAGE	0.00	0.00	0.00	0.00
	(0.90)	(0.80)	(0.99)	(0.97)
FA	-0.39	-0.37	-0.41	-0.33
	(0.24)	(0.27)	(0.22)	(0.37)
FS	0.13**	0.13**	0.13**	0.14**
	(0.04)	(0.05)	(0.03)	(0.03)
DER	-0.09***	-0.09***	-0.09***	-0.09***
	(0.00)	(0.00)	(0.00)	(0.00)
CPOW1*CAGE		-0.00		
		(0.54)		
CPOW1*CEDU		-0.06		
		(0.54)		
CPOW1*CGEN		-0.06		
		(0.76)		
CPOW2*CAGE				0.00
				(0.91)
CPOW2*CEDU				0.01
				(0.45)
CPOW2*CGEN				0.01
				(0.84)
Observations	320	320	320	320
Firms	64	64	64	64
F-test	0.00	0.00	0.00	0.00
R-Squared	0.69	0.69	0.69	0.69

***p<0,01, ** p<0,05 show statistical significance at the 1% and 5% levels.

The CEO age regression coefficients measured by the age of the CEO (CAGE) as a moderator were 0.00 and 0.00, with probability values being 0.54 and 0.91, all of which were more than α (0.1). Therefore, it was concluded that CGEN cannot moderate the relation between CEO power and ROE. The CEO education regression coefficients measured from the CEO education level (CEDU) as moderation were -0.06 and 0.01, with probability values of 0.54 and 0.45, all of which were more than α (0.1). Therefore, it was concluded that CGEN cannot moderate the relation between CEO power and ROE. The CEO gender regression coefficients measured from the CEO being a woman (CGEN) as moderation were -0.06 and 0.01, with probability values being 0.76 and 0.84, all of which were more than α (0.1). Thus, it was concluded that CGEN cannot moderate the relation between CEO power and ROE.

The analysis results in Table 7 revealed that the regression coefficients for CEO power as measured by CPOW1 (share ownership) were -0.42 and -1.85, with the probability values for each model being 0.22 and 0.34, all of which exceeded α (0.1). Therefore, it can be concluded that CPOW1 did not have a significant and positive relation with Tobin's Q.

The CEO power regression coefficients measured by the CEO's tenure since being appointed by the company (CPOW2) were 0.02 and -0.16, with probability values being 0.73 and 0.53, all of which exceeded the probability value of more than α (0.1). Therefore, it can be concluded that CPOW2 did not have a significant and positive relation with ROA. This showed that CPOW2 did not have a significant effect on company performance, as measured by Tobin's Q.

Table 7. Tobin's Q regressions

Variables	Tobin's Q			
	TQ1	TQ1Moderated	TQ2	TQ2Moderated
Constant	-19.77**	-19.46**	-16.93*	-19.70*
	(0.04)	(0.05)	(0.09)	(0.06)
CPOW1	-0.42	-1.85		
	(0.22)	(0.34)		
CPOW2			0.02	-0.16
			(0.73)	(0.53)
CGEN	-1.76**	-1.91**	-1.84***	-3.00***
	(0.01)	(0.03)	(0.01)	(0.00)
CEDU	-0.01	-0.07	0.10	-0.49
	(0.97)	(0.87)	(0.79)	(0.25)
CAGE	-0.01	0.00	0.01	0.00
	(0.77)	(0.91)	(0.81)	(0.96)
FA	-6.27***	-6.45***	6.53***	-5.83***
	(0.00)	(0.00)	(0.00)	(0.01)
FS	1.43***	1.45***	1.36***	1.40***
	(0.00)	(0.00)	(0.00)	(0.00)
DER	-0.03	-0.03	-0.03	-0.03
	(0.42)	(0.42)	(0.43)	(0.37)
CPOW1*CAGE		0.02		
		(0.48)		
CPOW1*CEDU		0.16		
		(0.79)		
CPOW1*CGEN		0.35		
		(0.76)		
CPOW2*CAGE				0.00
				(0.75)
CPOW2*CEDU				0.12
				(0.22)
CPOW2*CGEN				0.40*
				(0.08)
Observations	320	320	320	320
Firms	64	64	64	64
F-test	0.00	0.00	0.00	0.00
R Squared	0.76	0.77	0.76	0.77

***p<0.01, ** p<0.05, *p<0.1 show statistical significance at the 1%, 5% and 10% levels.

The CEO age regression coefficients measured by the age of the CEO (CAGE) as moderation were 0.02 and 0.00, with probability values being 0.48 and 0.75, all of which were more than α (0.1). Therefore, it was concluded that CGEN cannot moderate the relation between CEO power and Tobin's Q. The CEO education regression coefficients measured from the CEO education level (CEDU) as moderation were 0.16 and 0.12, with probability values of 0.79 and 0.22, all of which were more than α (0.1). Therefore, it was concluded that CGEN could not moderate the relation between CEO power and Tobin's Q. The CEO gender regression coefficients measured by the CEO being a woman (CGEN) as moderation were -0.03 and 0.40, with the probability value by using the model measuring share ownership (CPOW1) at 0.76, which was greater than (0.1), and the model measuring CEO tenure (CPOW2) was 0.08, in which all probabilities were less than α (0.1). Therefore, it was concluded that CGEN could moderate the relation between CEO power, as measured by CEO tenure and Tobin's Q.

4.4. Discussion

Based on the data presented in Table 5, Table 6 and Table 7, regression analysis showed that CEO power has no effect on company performance, as measured by ROA, ROE, and Tobin's Q. These findings were in line with the results of previous research conducted by Marietza (2024). Whether the CEO power was high or low, it did not have a real impact on company performance.

Regression analysis showed that CEO age could not moderate CEO power on company

performance, as measured by ROA, ROE, and Tobin's Q. In terms of CEO age, old or young did not have a significant impact on company performance. In contrast, Ali et al. (2022) showed that CEO attributes (age, gender and education) significantly moderated the relation between CEO duality and company performance, as well as research conducted by Hsu et al. (2013).

It is important to understand that the influence of CEO age may be contextual, depending on industry sector and organizational characteristics. It is possible that CEO age only has a significant moderating impact in the context of certain industries or types of organization.

Regression analysis showed that CEO education could not moderate CEO power on company performance, as measured by ROA, ROE, and Tobin's Q. CEO power, whether high or low, did not have a real impact on the company financial performance. In contrast, research by Ali et al. (2022) showed that CEO attributes (age, gender, and education) significantly moderated the relation between CEO duality and company performance, as well as research conducted by Hsu et al. (2013) and Ghardallou (2022).

Although education level may reflect some academic knowledge and skills, it does not always have a direct impact on leadership qualities or managerial abilities. Managerial skills involve a number of other factors, such as industry experience, emotional intelligence, and leadership skills that may not be fully reflected in educational level.

In this study, female CEO gender was proven to be able to positively moderate the relation between CEO tenure and financial performance (Tobin's Q). These findings indicated that the presence of a female CEO had a positive impact in changing the relation between tenure and corporate financial performance, reflecting different leadership dynamics and potential advantages in decision-making. However, it should be acknowledged that these moderation results do not always occur consistently with other variables, indicating the complexity of contextual and methodological factors that can influence these dynamics.

This was in line with a research by Curea et al. (2022) which tested the moderating effect of CEO gender. Consistent with predictions, CEO gender had a positive effect on the relation between intangibles and market performance.

5. Conclusion

The power of a CEO has a major impact on direction and performance of a company. Therefore, this research examined the impact of CEO power on company performance, moderated by CEO age, CEO gender and CEO education. This research selected companies listed on the Kompas100 index on the Indonesia Stock Exchange as samples.

This research found that the level of CEO power did not have a significant influence on company performance. The level of CEO power , whether high or low, did not have a real impact on the company performance results. The research also investigated the role of moderating variables, such as CEO age, CEO education, and CEO gender on the relation between CEO power and company performance, as measured through ROA, ROE, and Tobin's Q. The results showed that CEO age was not able to moderate the impact of CEO power on company performance. Old and young CEOs did not have a significant impact. Moreover, CEO education could not moderate this relation, indicating that the level of education did not influence the influence of CEO power on company performance. However, it should be noted that CEO gender, especially female, was proven to have a positive influence in moderating the relation between CEO tenure and financial performance (Tobin's Q). These results suggested that the presence of female CEOs can have a positive impact in changing the dynamics between tenure and corporate financial performance, reflecting potential advantages in decision-making and different leadership styles.

There were several limitations that can be a focus for future research. This research only uses a sample consisting of Kompas100 Semester 2, 2022 period which was listed on the Indonesia Stock Exchange, so the results of this research had limitations in generalizing the

findings to every sector and other countries. There were several implications, including, to provide a deeper understanding of companies. Based on the research results, companies can select CEOs more carefully, taking into account their education and background. This is for improving the company image and building investor confidence, thereby encouraging them to invest in the company entity. Several suggestions for future studies include endogeneity tests such as propensity score matching, difference in difference, and instrumental variable.

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