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Impact of Managerial Efficiency as Moderating Variable in Corporate Governance towards Corporate Performance: Evidence from Stock Exchange of Thailand

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Abstract

The objectives of this study were to examine the impact of corporate governance on the performance of companies listed on the Stock Exchange of Thailand and to examine the impact of managerial efficiency as a moderating variable on the relationship between such variables. The data were collected from 2,104 samples from 2016 to 2021, and analyzed by using multiple regression and PROCESS. It was found that corporate governance was positively correlated with return on assets (ROA), but was not correlated with Tobin's Q. Managerial efficiency was also found to have a significant influence on the relationship between corporate governance and corporate performance. Thus, high managerial efficiency affects high corporate performance as a result of good corporate governance.

Keywords: *Managerial efficiency, corporate governance, corporate performance*

1. Introduction

Nowadays, domestic and foreign investors pay attention to listed companies with corporate governance (CG), together with business model, competitiveness, and growth ability. The reason is that a company with good corporate governance can provide a long-term benefit for stakeholders. Furthermore, good corporate governance also reflects transparency and sincerity with investors. Thus, stakeholders from all sectors consider good corporate governance as an important factor to success since it builds confidence and trust among customers, which makes the company worth investing (Farooq et al., 2022). Several studies have shown that good corporate governance comes from the role of the board after examining board characteristics, such as board size, frequency of board meetings, board independence, CEO duality and gender diversity of the board. In addition to the role of the board, an effective relationship between the board and the management is essential for good corporate governance and firm performance. The board must act in supervising the management to achieve the objectives and goals. As a result, the performance of the board of directors is inevitably linked to the management. Furthermore, the CEO is responsible for implementing good corporate governance principles in the management and corporate structure, as well as applying the policies to the operational level for long-term corporate benefits and growth sustainably.

According to García-Sánchez et al., (2019) competitive advantages in corporate social responsibility can be developed in firms with distinct human resources, which allows them to achieve superior social performance. The reason behind this is that the management's efficiency, skills, and personal beliefs have a strong influence on a corporate policy direction and social practices. A lack of managerial efficiency may lead to managerial discretionary behavior, which harms stakeholders' interests. Based on previous studies suggesting that firms with good corporate governance achieve superior firm performance, this current study aims to investigate the moderating effects of chief executive officer's managerial efficiency and corporate governance on corporate performance in order to find whether corporate governance affects corporate performance, and what role managerial efficiency moderates the relationship between corporate governance and corporate performance by using Hayes' process analysis (2013).

2. Literature Review and Hypothesis Development

According to Farooq et al. (2022), corporate governance, which focuses on the structure and processes of corporate direction and management, fosters interaction among shareholders, stakeholders, controlling system, and the board of directors. Agency theory was employed in this study to investigate the effects of corporate governance on corporate performance.

2.1 Agency Theory

In companies, the management acting on behalf of the owner is in charge of the resources. Their position and actions can lead to agency problems in firms according to Jensen & Meckling (1976)'s agency theory. In fact, the position of the management is based on a contract in which shareholders hire and empower the management to make decisions on their behalf. However, agency problems occur due to conflicts of interests if the management distort such power by acting for their self-interests instead of maximizing benefits for the shareholders (Eisenhardt, 1989). However, according to Fama & Jensen (1983), the most effective means of controlling a company is corporate governance, which leads to an alignment of both parties' interests. In other words, if a company is able to handle the agency problem, its value increases.

2.2 Corporate Governance and Firm performance

Corporate governance refers to a relationship structure and practice that reflects transparency and accountability of the board of directors to build investor confidence, which is essential to raising capital and being a public listed company. Besides confidence, good performance, returns, agility, resilience, together with a balanced relationship with stakeholders would help companies compete in the business world and be sustainable in the long run. Thus, corporate governance is introduced as a mechanism to prevent opportunistic managerial conduct and reduce agency problems and information asymmetry (Jensen & Meckling, 1976; Fama & Jensen, 1983).

Corporate governance is one of the most important methods to boost investor confidence by improving corporate growth and efficiency. In Thailand, listed firms adopt corporate governance to keep an eye on the performance of their management, board, and firm. If their corporate governance scores (CGSs) are higher, their investments will pay off (Tantivanichanon et al., 2015).

Still, the relationship between corporate governance (CG) and financial success is contradictory. Several studies have demonstrated a positive and significant correlation between good corporate governance and corporate performance (Samontaray, 2010;Yarram, 2015; ElKelish & Hassan, 2015;Menicucci & Paolucci, 2022;Maji & Lohia, 2023). According to Benjamin & Zain (2015), a negative and significant relationship between corporate governance and firm performance was found. In contrast, Price et al. (2011) and Oxelheim & Randoy, (2003) found statistically insignificant relationship between corporate governance and firm performance.

Previous studies on the relationship between effective corporate governance and corporate performance, such as the study of MacAulay et al. (2009), demonstrated a correlation between the degree of corporate governance implementation capacity and the resources. Compared to small companies, large companies have more resources to improve their governance. Additionally, they tend to be more motivated to implement corporate governance due to the active monitoring of debt instruments, more stringent regulator checks, and increased stock performance awareness. Furthermore, larger firms have higher agency costs, necessitating a stronger governance mechanism to address this issue. As a result, differences in corporate governance among companies have an impact on corporate performance. Thus, the first hypothesis is as follows:

H1. *Corporate governance is positively associated with the performance of firm.*

2.3 Corporate Governance and Corporate Value: Moderating Effect of Managerial Efficiency

As previously mentioned, managerial efficiency is expected to have an impact on the relationship between corporate governance and corporate value. However, it is interesting to find how they interact with each other and whether complement or replace each other in influencing good corporate governance through a firm's value performance.

According to previous studies, internal and external corporate governance mechanisms function in a complementary or substitutive manner and influence firm performance in the forms of profitability, financial performance, and firm value while reducing corporate risks. However, Farooq et al., (2022) provided evidence that corporate governance processes worked with other elements, such as background, abilities, and skills. Furthermore, effective corporate governance was found to have a significant and positive impact on organizational outcomes. As a result, firm outcomes reflect the managerial efficiency. In other words, managerial efficiency is associated with corporate governance and corporate value.

The ability and effort of the CEO to create effective business decisions is managerial efficiency. This study defines managerial efficiency as the capacity of the chief executive officer to convert company resources into income. According to Demerjian et al., (2012), managerial effectiveness correlates with improved business performance. Similarly, Putra et al., (2022) found that the CEO with the higher ability to make investments in corporate social responsibility can lead to greater firm performance. In contrast, the CEO with less ability tends to overinvest or underinvest for his personal interests at the shareholders' expenses. Thus, good corporate governance with higher managerial efficiency leads to successful firm decisions. Thus, the hypothesis is as follows:

H2. *The positive effect of corporate governance on corporate performance is greater in the presence of higher managerial efficiency.*

Corporate governance within the managerial efficiency can improve firm performance. It is believed that effective corporate governance leads to an increase in corporate performance, as shown in Figure 1. It was stated in the literature that there was a moderate effect of managerial efficiency on the relationship between corporate governance in the managerial efficiency and company performance; however, this effect has not been tested. Thus, in this study, the managerial efficiency is used to find how corporate governance performance influences corporate performance.

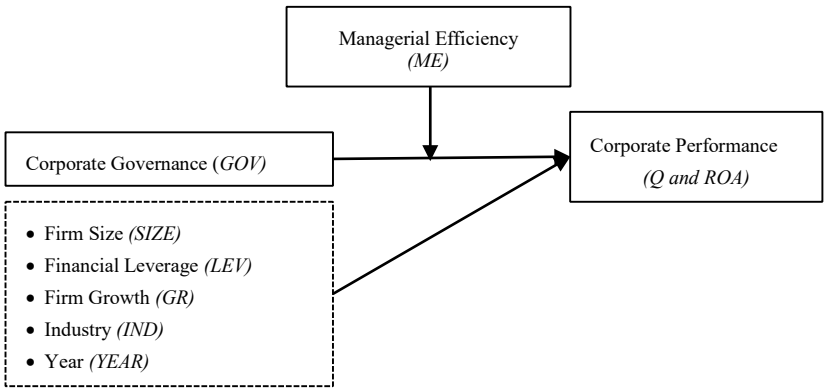

Figure 1 Moderating role between corporate governance and corporate performance

3. Methodology

3.1 Sample

The population in this study consists of listed firms on the Stock Exchange of Thailand. Their disclosed financial statements, such as financial reports were collected as the data sources. The sample was selected based on non-probability sampling method, and purposive sampling method. The limitation of this study is that there is no access to the data before 2016 since the Stock Exchange of Thailand deletes older data and updates financial report ones. As a result, the most recent data available for this study is from 2016 to 2021. There are some sampling criteria. First, the sample is not included (1) the listed company which are subject to possible delisting (2) property fund and real estate investment trusts (3) financial sector (4) firms with insufficient data to construct variables. Second, there is no negative equity value in the sample. This study also employs firms with a positive book value of equity to avoid the inherent bias of Tobin's Q as a

measure of performance. (Simamora, 2023) Then, 373 firms were chosen as a sample, and 2,104 firm-year observations were investigated in total.

3.2 Variable Measurement

3.2.1 Corporate performance measurement

Corporate performance is the dependent variable, which can be measured by Tobin's Q and ROA.

In fact, Tobin's Q is used to assess long-term performance and growth. Even though investment values are difficult to measure (Simamora, 2023), it is the best measure of variation in investment performance (Bharadwaji et al., 1999).

$$Q = \frac{(\text{Fiscal Annual Closed Price} \times \text{Common Shares Outstanding}) + \text{Total Assets} - \text{Total Equity}}{Total\ Assets}$$

ROA is the main model's dependent variable for financial performance, and it is the most prominent accounting-based financial performance indicator. Since ROA is well-established in firm performance–financial performance studies (Alajmi & Worthington, 2023; Berthelot et al., 2010), it is used to measure firm profitability.

$$ROA = \frac{\text{Net income}}{Average\ of\ last\ year\ and\ current\ year's\ total\ assets}$$

3.2.2 Corporate governance measurement

Companies with excellent corporate governance performance were rated with the full score of 1, Very Good was 0.8, and Good was 0.6 (5,4,3 Score respectively) However, companies that were assessed as satisfied, passed and below the assessment criteria would not be disclosed from the Thai Institute of Directors (IOD), and would be excluded from the study

Corporate Governance Report of Thai Listed Companies (CGR) presents corporate governance scores of each company listed on the Stock Exchange of Thailand. The criteria and methods are based on the corporate governance principles of the Organization for Economic Cooperation and Development (OECD), the assessment criteria of the ASEAN CG Scorecard and the Corporate Governance Code (CG Code). Clearly, the use of CGR criteria in Thailand differs from the criteria used to assess corporate governance in other countries due to the national context. However, the results of the CGR assessment only represent a third-party governance assessment perspective, but do not represent firm performance finances, or the abilities of the management (SEC, 2023). Thus, it is essential to find whether corporate governance score that reflects firm performance according to the principles of corporate governance disclosed to the public is it related to firm performance or not, and how. Furthermore CGR- based assessments are still objective to be used as information to make an investment decision (Tantivanichanon et al., 2015)

3.2.3 Managerial efficiency measurement

The moderating variable is the managerial effectiveness. In accordance with Demerjian et al., (2012) this study used a single output and seven inputs.

$$\text{Managerial efficiency} = \frac{\text{Sales}}{\text{COSGS} + \text{SGA} + \text{PPE} + \text{OpsLease} + \text{R\&D} + \text{Goodwill} + \text{OtherIntan}}$$

(1) COGS refers to the cost of goods sold (2) SGA refers to sales, general and administrative expenses. (3) PPE refers to net fixed assets. (4) OpsLease is capitalized of lease expenses period. (5) R&D is capitalized research and development expenses period. (6) Goodwill refers to the net value of goodwill. (7) OtherIntan refers to the net value of other intangible assets, excluding goodwill. According to Demerjian et al. ((2012, the DEA scores from the above equation are influenced by both firm-level and manager-level characteristics. Consequently, the DEA scores on business-specific variables, such as firm size, firm market share, cash availability, firm age, operational complexity, and overseas activities, and utilize the residual as

a proxy for managerial skill are regressed. Thus, it is necessary to employ the residual from the preceding approach as a measure of management skill in this study.

3.2.4 Control variables measurement

To exclude the effect of additional variables influencing the link between the independent and dependent variables, the following variables: firm size (SIZE); logarithm of total assets, leverage (LEV); debt to equity ratio, firm growth (GR); the annual rate of change in the sales volume each year, industry (INDUS) and year (YEAR) are controlled.

3.3 Proposed model and hypothesis testing

To evaluate the effect of corporate governance on firm performance and managerial efficiency, this study provides a model, analyzed by the multiple regression and Hayes PROCESS. In fact, Hayes (2013) introduced the process macro, a computational tool with models preprogrammed into process that estimates all-path analysis for each equation individually, and Hayes conditional process analysis uses ordinary least squares regression-based path analysis to estimate models (Hayes et al., 2017). The Hayes approach has widely been utilized since it presents necessary statistics, such as conditional indirect effects and the index of moderated.

The equation below is used to study the effect of corporate governance on Tobin's q (Q), ROA and the interactive variable of corporate governance with managerial efficiency (MA) (GOV x MA) on corporate performance (Q, ROA) in order to test hypotheses (H1 and H2).

$$Q/ROA = \beta_0 + \beta_1 \mathrm{GOV} + \beta_2 \mathrm{ME} + \beta_3 \mathrm{GOV} \times \mathrm{ME} + \beta_n \mathrm{Control} + \mathrm{Industry/\ Year\ fixed\ effects} + \varepsilon$$

For simplicity, the firm i and time (t) subscripts are omitted from the equations.

4. Empirical results

4.1 Descriptive statistics and normality tests of the variables

This section presents the means, median, standard deviation, maximum, and minimum of the variables. Furthermore, skewness is used to assess the lack of symmetry while kurtosis is used to assess whether the data are normally distributed.

Table 1 Descriptive statistics and normality tests

Variables	Descriptive statistics					Normality tests	
	Mean	Media	SD	Min	Max	Skewnes	Kurtosis
Dependent variables							
Q *(Ratio)*	1.423	1.165	0.700	0.524	3.055	0.988	-.185
ROA *(%)*	4.937	4.330	7.245	-19.27	29.85	0.373	2.071
Independent variable							
GOV *(Score)*	0.813	0.400	0.157	0.600	1.000	-0.119	-1.375
Moderating variable							
ME *(Score)*	0.743	0.714	0.355	0.002	1.799	0.867	1.167
Control variables							
SIZE *(Billion)*	39.9	6.4	158.4	0.45	3,078	11.891	178.59
LEV *(times)*	0.876	0.736	0.599	0.102	2.356	0.442	-1.037
GR *(%)*	3.720	2.152	21.72	-38.9	59.8	0.519	0.028

As shown in Table 1, the skewness and kurtosis tests were used to test the data's normality. Not all values of ± 3 for skewness and ± 10 for kurtosis, respectively, which is considered unacceptable evidence of a normal univariate distribution (Kline,2016). Even though the data were not normally distributed, abnormally distributed data may not have an impact on the study's credibility. Since the sample was large, it was assumed that the data were not normally distributed. Thus, the natural logarithms (SIZE) of these variables were used to solve this issue.

Table 1 presents the descriptive statistics of research variables. The average value of Tobin's Q is 1.423, the highest value is 3.055, and the lowest one is 0.524. The average value of return on assets (ROA) is 4.937, the highest value is 29.85, and the lowest one is -19.27. The average score of corporate governance is 0.813, the highest score is 1, and the lowest one is 0.600. The average score of managerial efficiency (ME) is 0.743, the highest score is 1.799, and the lowest one is 0.002. The average value of firm size (SIZE) has is 39.9 billion baht, the highest value is 3,078 billion baht, and the lowest one is 0.45 billion baht. The average value of leverage (LEV) is 0.876, the highest value is 2.356, and the lowest one is 0.102. The average value of firm growth (GR) is 3.72%, the highest value is 59.8, and the lowest one is -38.9.

4.2 Correlation matrix and multicollinearity

Table 2 Correlations of all the variables and multicollinearity

Variables	*VIF*	*GO*	*ME*	*GOV*	*SIZE*	*LEV*	*GR*	*Q*	*ROA*
GOV	1.252	1.00	.078	-	.369	.133	-	.136 **	.082 **
ME	1.162		1.000	.107	-.096	-.114	.138	.461 **	.484 **
GOV ×ME	1.036			1.000	-.073	-.057	.048 *	.074 **	.093 **
SIZE	1.544				1.000	.428	.066	-0.011	-0.001
LEV	1.314					1.000	.064	-.083 **	-.298 **
GR	1.113						1.000	.138 **	.284 **
Q								1.000	.478 **
ROA									1.000

PROCESS for SPSS developed by Hayes (2013) was utilized in this study. Hayes recommended using mean centering before regression analysis since the antecedent variable (X) and the interaction term (XM) are highly correlated. This can lead to multicollinearity and results in poor estimation of regression coefficients, large standard errors, and decreased power of the statistical test of interaction.

Table 2 presents the pair-wise correlation of the variables. The correlation coefficient among GOV, Q and ROA was positive and significant (0.136 and 0.082). Additionally, the correlation coefficient among ME, Q and ROA was positive and significant (0.461 and 0.484). It indicates that the variables in focus were related. In other words, an increase in GOV and ME can also raise Q and ROA.

In fact, multicollinearity occurs when numerous variables in multiple linear regression analysis are significantly correlated with dependent variables (Shrestha, 2020) . The existence of multicollinearity increases the standard error, which makes the coefficients unreliable and imprecise. According to the results of the correlation in Table 2, the highest coefficient is 0.478 which is relatively low and shows no multicollinearity (Hair et al., 2018), and the variance inflation factor (VIF) revealed low values between 1.036 and 1.544. Since the correlation coefficients between explanatory variables are not high, multicollinearity problems can be ignored (Shrestha, 2020).

4.3 Process analysis

Table 3 Effect of managerial efficiency on the relation between corporate governance and corporate governance

	Expected sign	***Model 1 (Q)***	***Model 2 (ROA)***
Independent variable			
GOV	H1 a/ b : +	0.206 (1.649)	0.001 (0.006**)
Moderating variables			
ME		2.347 (25.308***)	0.056 (13.654***)
GOV ×ME	H2 a/ b : +	0.715 (2.105**)	0.036 (2.364**)
Control variables			
SIZE	+	0.015 (0.677)	0.008 (8.185***)
LEV	-	-0.0546 (1.529)	-0.027 (16.729***)
GR	+	0.3139 (2.456**)	0.067 (11.722***)
Industry fixed effect		yes	yes
Year fixed effect		yes	yes
Constant		1.808 (4.909***)	-0.0451(2.761***)
Observation		2,140	2,140
R-squared (%)		39.76%	27.57%
F-Statistic		4.431***	5.589***

Conditional effect of focal predictor at values of the moderator

Model 1 Q				***Model 2 ROA***			
ME (Mod)	***effect***	***t***	***p***	***ME (Mod)***	***effect***	***t***	***p***
0.002	-0.308	-1.151	0.250	0.002	-0.025	-2.136	0.033**
0.101	-0.237	-0.996	0.320	0.106	-0.022	-2.061	0.040**
0.200	-0.166	-0.791	0.429	0.200	-0.018	-1.961	0.050**
0.299	-0.096	-0.518	0.604	0.211	-0.018	-1.948	0.052
0.398	-0.025	-0.153	0.878	0.315	-0.014	-1.776	0.076
0.497	0.046	0.325	0.745	0.419	-0.011	-1.510	0.131
0.596	0.117	0.906	0.365	0.523	-0.007	-1.107	0.268
0.695	0.188	1.510	0.131	0.628	-0.003	-0.545	0.586
0.783	0.250	1.961	0.050**	0.732	0.001	0.118	0.906
0.795	0.259	2.012	0.044**	0.836	0.004	0.741	0.459
0.894	0.330	2.339	0.019**	0.941	0.008	1.223	0.222
0.993	0.401	2.511	0.012**	1.045	0.012	1.554	0.120
1.092	0.471	2.583	0.010***	1.149	0.016	1.774	0.076
1.191	0.542	2.602	0.009***	1.253	0.019	1.921	0.055
1.290	0.613	2.596	0.010***	1.291	0.021	1.961	0.050**
1.389	0.684	2.577	0.010***	1.358	0.023	2.020	0.044**
1.488	0.755	2.554	0.011***	1.462	0.027	2.090	0.037**
1.587	0.826	2.530	0.012***	1.566	0.030	2.141	0.032**
1.686	0.897	2.506	0.012***	1.670	0.034	2.179	0.030**
1.785	0.968	2.484	0.013***	1.775	0.038	2.207	0.027**
1.884	1.038	2.463	0.014***	1.879	0.042	2.230	0.026**
1.983	1.109	2.444	0.015***	1.983	0.045	2.248	0.025**

In Table 3, PROCESS analysis was used to test the hypotheses of this current study. Model 1 and Model 2 were suitable since the value of F-Statistic is statistically significant ($p<0.01$). In Model 1, it is shown that corporate governance (GOV) had no relationship with Q with a regression coefficient (B) at 0.206. However, the coefficient was not statistically significant. In other words, corporate governance had no relation to market performance (Q). Thus, the hypothesis H1a was rejected since firm growth (GR) had a

positive correlation with Q, while firm size (SIZE) and leverage (LEV) had no correlation with Q at a statistical significance level of 0.05.

In Model 2, it is shown that corporate governance (GOV) had a significant positive correlation with accounting performance or return on assets (ROA) with regression coefficient (B) at 0.006 ($p<0.05$). Thus, the hypothesis H1b was accepted. In terms of control variables, it was found that firm growth (GR) and firm size (SIZE) had a positive correlation with ROA, while leverage (LEV) had a negative correlation with ROA at a statistical significance level of 0.01. It indicates that there is an increase in the return on assets in companies with higher levels of corporate governance. In other words, good corporate governance practices have an effect on the higher return on assets of public companies on the Thai stock market.

Table 3 presents the analysis results of the influence of managerial efficiency (conditional effect of focal predictor at values of the moderator). As shown in Model 1, managerial efficiency had a significant positive influence on the relationship between corporate governance (GOV) and Q with a regression coefficient (B) at 0.715 ($p<0.05$). Thus, the hypothesis H2a was accepted. In addition, as shown in Model 2, managerial efficiency had a significant positive influence on the relationship between corporate governance (GOV) and ROA with the regression coefficient (B) at 0.036 ($p<0.05$). Thus, the hypothesis H2b was accepted. It indicates that companies with high managerial efficiency have an influence on corporate governance, and lead to better firm performance. The PROCESS presents that managerial efficiency as a controlled variable had a positive influence on the relationship between corporate governance (GOV) and firm performance. It was found that managerial efficiency can have a significant influence on the relationship between corporate governance (GOV) and Q. However, the score of managerial efficiency should be more than 0.783 points to affect the relationship between corporate governance (GOV) and Q at a confidence level of 95%. ($p<0.05$). If the score of managerial efficiency is more than 1.092, it affects the relationship between corporate governance (GOV) and Q at 99% of the confidence level ($p<0.01$). It indicates that high managerial efficiency will be able to reflect stakeholders' confidence in corporate governance mechanism and increase marketing performance.

The results of the test regarding the influence of managerial efficiency on the relationship between corporate governance (GOV) and ROA show that managerial efficiency had a positive influence on the relationship between corporate governance (GOV) and return on assets (ROA). However, it managerial efficiency is less than 0.2 points, its effect on the relationship between corporate governance (GOV) and ROA decreases. On the contrary, if managerial efficiency is more than 1.291 points, its effect on the relationship between corporate governance (GOV) and ROA increases at the 95% confidence level ($p<0.05$). Thus, a high score of managerial efficiency reflects that good corporate governance can lead to higher return on assets. It is recommended that companies implement good corporate governance in the use of cash-generating assets to reflect the more efficient use of resources to generate income.

5. Discussion and conclusion

This study examined the impact of good corporate governance on the performance of the companies listed on the Stock Exchange of Thailand, and also examined the influence of managerial efficiency on performance through corporate governance.

The results of this study revealed that corporate governance was not correlated with market performance (Q), which is consistent with Price et al., (2011), who explained that the operations related to corporate governance tend to have high costs, especially in large companies. Furthermore, companies tend to send a signal to investors to reduce agent problems by paying higher dividends. However, corporate governance alone is not enough to change the behavior of investors, especially in developing countries with low levels of investor protection (Oxelheim & Randoy, 2003). The results revealed that managerial efficiency had a positive influence on the relationship between good corporate governance (GOV) and market performance (Q). In other words, managerial efficiency increases Q. Despite good corporate governance, the investors' view that low operational efficiency cannot lead to efficiency, and it does not reflect marketing performance. On the other hand, good corporate governance and high efficiency in management can lead to maximum benefits for shareholders and added value for the company in the long run. This can also reduce agency problems according to agency theory (Jensen and Meckling, 1976).

In addition, the study of corporate governance on the rate of return on assets (ROA) revealed that corporate governance had a positive correlation with the rate of return on assets (ROA). This is consistent

with the results of the study of ElKelish & Hassan (2015), Menicucci & Paolucci (2022) and Maji & Lohia (2023), which found that good corporate governance increased firm performance. Furthermore, managerial efficiency had a positive influence on ROA, which is considered as an impact of good corporate governance. This also leads to an increase in return on assets since corporate governance stimulates the management to perform better. The support of mechanisms in accordance with the principles of good corporate governance can reduce other agent costs, resulting in better company performance (Jensen & Meckling, 1976; Fama & Jensen, 1983).

This study reveals new evidence that managerial efficiency acts an important factor in corporate governance mechanisms since companies try to show a good image to all stakeholders by building confidence of investors regarding strategies, policies, and operational performance of the company. Effective management ensures stakeholders that good corporate governance can enhance sustainability while managerial efficiency has an influence on firm performance as well as corporate governance mechanisms. Corporate governance and effective management that lead to good firm performance (Farooq et al., 2022) can be considered as valuable information to make an investment decision.

By focusing more managerial emphasis on good corporate governance, firms have an opportunity to good firm performance. Furthermore, shareholders, especially large investors, have so far demonstrated significant interest in the performance gains that might be obtained from high managerial efficiency. In the context of strategy selection, there are recommendations for firms with managers who are less effective in terms of improving performance. First, since there are no higher-efficiency managers to manage corporate governance, businesses are able to implement strategies with outstanding corporate governance. Second, businesses can increase the managerial efficiency of their managers by implementing efficiency improvement programs, particularly in corporate governance management. Thirdly, businesses can hire other parties with greater management effectiveness, such as a consultant or other managers with greater abilities. Firms with more efficient managers can improve performance by implementing a corporate governance strategy to innovate new technology, production, and markets in order to maximize cost efficiency and revenue.

There are two limitations in this study. Firstly, the sample of which the CG scores are satisfactory, pass, and fail were excluded since their information regarding managerial efficiency were not disclosed. Secondly, this study did not divide the companies based on industry that might have different business models. Thus, the results of a study that focuses on each industry might be consistent or inconsistent with the results of this current study.

This study found no correlation between corporate governance and market performance. Thus, the impact of other factors needs to be considered in order to support good corporate governance practices. In addition, the influence of managerial efficiency on the relationship of good corporate governance and firm performance was found. The results of this study can be used by investors, the management. However, a comparative study based on each industry is conducted, it will be beneficial in making and investment decision, imposing management policies, or evaluating the performance of the management more effectively. Future research can expand the scope of this study by examining the environmental and social performance to reflect more comprehensive sustainability.

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