CEO GENDER AND FIRM PERFORMANCE IN MALAYSIA

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ABSTRACT

This study aims to examine the link between CEO gender and company performance in Malaysia Using 30 companies for the period from 2018 to 2022 and a panel data analysis, the findings show that gender, firm age, and the number of directors have no effect on a company's performance. Contrarily, firm size significantly enhances the performance of the firm. The study has major implications to investors, businesses, and policy makers.

Keywords: Malaysia, CEO gender, firm size, firm age, number of directors, firm performance

INTRODUCTION

CEO leadership is viewed as a crucial element in the regeneration of entities (Tichy & Devanna, 1986). In the study of behavioral finance, a significant phenomenon is explained by the upper echelons theory (UET). According to the hypothesis, executive background characteristics or features influence organizational outcomes, potential courses of action, and performance levels (Hambrick & Mason, 1984). It implies that senior managers' personal traits, such as gender, age, and degree of education, are more crucial the more difficult a choice is to make, such a strategic move (Kaur & Singh, 2018). According to the theory's premise, CEOs' various personality qualities have an effect on organizational structure and strategy, which in turn has an effect on the firm's strategic plans and organizational performance (Nielsen, 2010).

Does having a diverse mix of genders on the board of directors or in senior management result in value creation? There have been various investigations into this issue in the past, with slightly conflicting outcomes (Solakoglu & Demir, 2016). Even though there is a global drive for gender equality, businesses throughout the world are still unwilling to contemplate hiring women as CEOs unless there is strong proof that doing so will be advantageous to the company (Baloyi & Ngwakwe, 2017). Although women have been steadily advancing to corporate leadership roles such as boards of directors and senior executives, their progression to the CEO level has been more modest (Daily, Certo, & Dalton, 1999; Dezsö & Ross, 2012; Helfat, Harris, & Wolfson, 2006).

Sunil (2023) reported that women hold around 40% of senior management positions in Malaysia now, which is the same percentage as in 2022. Working methods have had a "significant impact" on the proportion of women in senior management, according to Grant Thornton's 2023 International Business Report (IBR). It specifically mentioned that 45% of enterprises in Malaysia are currently solely office-based, 52% have a hybrid and flexible strategy, and 3% are home-based. From a regional perspective, "some strong performances at a regional level" serve as the foundation for the overall growth of women in these jobs. It was noted that all areas had for the first time reached the 30% mark for female senior management. The largest increase among the regions was seen in ASEAN, rising from 37% to 40% (Sunil, 2023).

The issue of CEO gender and firm performance has attracted academics, investors, policymakers because CEO plays a vital role for firm performance. CEOs are obvious research targets since they are frequently the most powerful and prominent executives in a company. There are many studies looking at the connection between executives and business performance that focus solely on one executive feature, particularly gender. Gender is one of the executive traits that is most studied. The previous corporate finance research generally suggests that variances depending on a person's gender may have an impact on their effectiveness at work.

Most studies generally show that having more women in management enhances corporate governance and business performance. A published empirical finding stated that businesses run by women may perform better than those managed by men (Peni, 2012). A study carried out by Khan & Vieto (2013) found that gender has a positive and significant influence on firm performance. The study used ROA as a proxy to measure the company's performance. If a female CEO leads the company instead of a male CEO, ROA rises significantly more. This is supported by an empirical study conducted by Peni (2012) that claimed executive's gender significantly positively influences the firm performance. The findings revealed that companies with female CEOs typically outperform companies with male leadership.

This is contrary to findings by Ernestine & Setyaningrum (2019) that stated gender does not affect the firm performance. Both male and female CEOs can achieve higher business performance, but both genders are also capable of producing low performance firms. Another study also showed that gender has a positive association with firm performance but it is not statistically significant. There is no proof that having a female CEO and at least one female director significantly improves a company's success (Lam et.al., 2013). Amran (2011) demonstrated that male CEOs were shown to increase the business worth more than female CEOs. Another research has found no correlation between having a female CEO and the value of the company (Amran, Yusof, Ishak, & Aripin, 2014; Vintilă, Onofrei, & Gherghina, 2015).

Based on the previous discussion on previous studies on CEO gender and firm performance, the findings are varying and not consistent (Lam et.al., 2013). Thus, it is difficult for us to believe whether selection for CEO gender matters on firm performance. Besides, the studies on this topic is limited and still open for inquiry. Most of the studies focus on advanced countries such as the US, India and China. For instance, Peni (2012) and Khan & Vieto (2013) conducted studies in the US, Lam et.al., (2013) investigated the relationship of CEO and firm performance in China and Jadiyappa et.al., (2019) conducted these studies in India. There is no specific research that studies this topic in Malaysia. Based on the observation, we found that there are more male CEOs compared to female CEOs in which we assume that it signals lack of gender equality practices in the corporate board. We also found that female groups are competitive as they manage to position themself in a top management but rarely as CEO of the company. Therefore, the objective of the study is to investigate the relationship between CEO gender and firm performance in Malaysia. The study shall uncover the truth on the relationship between CEO gender and firm performance in developing countries of Malaysia. This study shall shed some light on this issue particularly in the context of Malaysia.

LITERATURE REVIEW

Khan & Vieito (2013) revealed that gender is a factor that affects firm performance on average. They also find the results in firms with female CEOs, the risk level is lower than in firms with male CEOs. Moreover, boards do not take into account the risk aversion differences between male

and female CEOs when designing compensation packages, especially equity-based compensation, which can be construed as an incentive for female CEOs to take risks. Firms managed by female CEOs are associated with better performance compared to the firms managed by male CEOs. It also finds that firm risk is smaller when the CEO is a woman.

Zhang et al. (2015) identify that companies with female CEOs report more conservative earnings. Due to their ethical and risk-averse natures, female CEOs are expected to identify bad news in reported earnings more quickly. The findings suggest that companies with female CEOs report earnings more conservatively regardless of the measure of conservatism used (Basu's (2007) return-based model, Ball and Shivakumar's (2006) cash-flow-based model, or Givoly and Hayn's (2000) accrual-based model). Martin et al. (2009) observes significantly bigger reductions in risk following female versus male CEO appointments, reflecting the market's perception of female CEOs as relatively risk averse. Female CEOs are found to avoid risky financing and investment opportunities.

Jadiyappa et al. (2019) examine the effect of female CEOs on the performance of Indian firms and they find after a woman becomes CEO, the sample companies' average ROA declines by around 10%. When performance is gauged by ROE, the reduction is also seen. This unfavorable outcome is linked to an increase in agency expenses that is seen after the hiring of a female CEO. Robband Watson (2010) argues that women working in corporations may not have the same level of education and work experience compared to men. Women are often subject to discrimination when accessing financial institutions: Colemanand Robb (2009) find that banks would lend at a much higher cost to firms led by females.

Indira and Setyaningrum (2019) found that Gender CEO and Firm Performance is CEO Gender does not affect firm performance. "The Relationship between Gender Diversity and Firm Performance: Evidence from Dutch and Danish Boardrooms" by J Marinova, J Plantenga, C Remery (2016): This study investigated the relationship between gender diversity in boardrooms and firm performance using data from Dutch and Danish companies. The results indicated that there was no significant association between gender diversity on boards and firm performance.

The board often appoints the CEO, who is the company's most senior management, for a specific period of years (Allgood & Farrell, 2000). They are able to develop experience and, consequently, more strength because of the amount of time they spend (Kirchmaier & Stathopoulos, 2008). According to the agency theory, gender-diverse boards may assist to lessen agency issues between managers and shareholders (Fama and Jensen, 1983; Jensen and Meckling, 1976). This theory also highlights the board of directors' responsibility in monitoring and managing managers. According to the principle, managers should always attempt to reconcile competing stakeholder interests. This is accomplished by making a choice that is in everyone's best interest (Davis & Schoorman, 1997). The idea also underscores the necessity for the board to support CEO decision-making by providing guidance and assistance (Hu & Alon, 2014). It is claimed that connections between the CEO and board will contribute to the development of a cordial relationship, enabling managers to make and carry out better judgements (Westphal, 1999).

The theory explains that the CEO together with the management team is the one in charge of the strategic plan of the organization. The top-level management (TMT), as the members of the organizations' upper echelons, view and interpret strategy using their personal experience, personality and values. Hambrick and Mason (1984) maintained that the competitive strategy offered by the managers through better decision-making processes enhanced firm performance. The theory provides a useful explanation of the managers' actions using their traits and practical experience in improving firm performance.

Existing research claims that in comparison to male CEOs, female CEOs have lower leverage, higher earnings volatility, and a higher chance of survival (Faccio et al. 2012). A risk-aversion hypothesis is also thought to explain why Mateos de Cabo et al. (2012) find a greater proportion of female directors in lower-risk banks. The risk perception of females is greater, the risky behavior they engage in is less, and the alternative they choose is less risky (Barsky et al. 1997; Eckel and Grossman 2008; Jianakoplos and Bernasek 2007; Schubert et al. 1999). Based on the above, our first null hypothesis is proposed:

H1: firms managed by female CEOs perform better.

On the contrary, some research also claims that male CEOs have performed better. The GST report finds that female CEOs engage in less earnings management than male CEOs due to their inherent risk aversion, as well as their intrinsic concern for their organizations and stakeholders. Since female CEOs are less likely to manipulate earnings than male CEOs, we expect women-led firms to engage in fewer earnings management practices than men-led firms. We therefore propose the following hypothesis:

H2: firms managed by male CEOs perform better.

Not only that, some studies also proved that the CEO gender does not affect firm performance. For example, according to Indira and Setyaningrum (2019), the gender of the CEO has no impact on the performance of the firm. Besides that, the other research written by Marinova et al. (2016) also has the same result. Ceo gender does not affect firm performance and that has the above evidence. According to those result, our group proposed a new hypothesis and that is:

H3: CEO gender does not affect firm performance

METHODOLOGY

Data Description
The data used for this study is 30 companies listed in Bursa Malaysia. It is critical to remember that the 30 companies chosen are not solely from the top 30. This is done to ensure that the ratio of firms led by female CEOs to companies led by male CEOs is equal, which is 15 companies led by both genders. This ensures that our findings are not gender biased. Aside from that, no specific industry will be selected for this research. Choosing companies generally contributes in having larger sample size, reduced bias and generalizability, as well as better comparative analysis.

Secondly, all the data for the variables tested in this study are from Orbis Database andthe companies' official website and annual reports. In this study, 5 years' time series data ranging from 2018 to 2022 are gathered from the sources mentioned above i.e., Orbis website as well as the companies' official website.

Model Estimation

To achieve this study objectives, a panel data analysis is used. Conducting a panel data analysis, the results will be more reliable and it removes the unobservable heterogeneity that might exist in the observations.

Regression Model Selection

In terms of the regression model, it is either the pooled ordinary least square (POLS), random effect model (REM), or fixed effect model (FEM) to be used. Hence, in order to determine the most appropriate regression model, there are two ways for the selection. They are the Breusch-Pagan Lagrange Multiplier (BP-LM) test, and Hausman Test.

Breusch-Pagan Lagrange Multiplier (BP-LM) Test

The Breusch-Pagan Lagrange Multiplier (BP-LM) Test is used in determining whether random effects are significant in panel data models. The null and alternative hypothesis are shown as below:

<div align="center">

HO: No random effect.
HA: Has a random effect.

</div>

In the decision rule, the significance level of 5% (0.05) is used. If the probability value of the test is less than 5% (0.05), the null hypothesis will be rejected. The rejection of the null hypothesis indicates that the random effect model (REM) is more appropriate to be used. In contrast, if the probability value of the test is greater than 5% (0.05), the null hypothesis will not be rejected. The non-rejection of the null hypothesis indicates that the pooled ordinary least square (POLS) model is more appropriate to be used.

Hausman Test

The Hausman test is used to choose between the random effect model (REM) and fixed effect model (FEM). The null and alternative hypothesis are shown as below:

<div align="center">

HO: Has a random effect.
HA: Has fixed effect.

</div>

In the decision rule, the significance level of 5% (0.05) is used, thus if the probability value of the Hausman test is less than 5% (0.05), the null hypothesis will be rejected. The rejection of the null hypothesis indicates that the fixed effect model (FEM) is more appropriate to be used. In contrast, if the probability value of the test is greater than 5% (0.05), the null hypothesis will not be rejected. The non-rejection of the null hypothesis indicates that the random effect model (REM) is more appropriate to be used.

Empirical Estimation

When examining the impact of CEO gender on firm performance, it is indeed crucial to consider various factors that can influence firm performance. By doing so, it is ensured that the relationship

between CEO gender and firm performance is adequately analyzed and that any potential confounding variables are considered. The variables include firm size, firm age, as well as the number of directors in the firm.

The function can be expressed in simple equation as follow:

$$FP_{jt} = \beta_0 + \beta_1 GENDER_{jt} + \beta_2 SIZE_{jt} + \beta_3 AGE_{jt} + \beta_4 NDIRECTOR_{jt} + \varepsilon_{jt}$$

where:

FP_jt (dependent variable) represents the firm performance.

GENDER (main independent variable) represents the CEO gender.

SIZE (control variable) represents the firm size.

AGE (control variable) represents the firm age.

NDIRECTOR (control variable) represents the number of directors.

β_0 is the constant term.

β_1 to *β_4* are the coefficients of the independent variables.

ε_jt is the error/stochastic term.

For the determinant of the firm performance, the return on asset (ROA) of the *j*th firm at time *t* will be used as the indicators. As for the main independent variable, which is the CEO gender, a dummy variable is created, indicating the gender of the CEO (eg: 0 for male, 1 for female). The firm size, firm age, as well as number of directors are the control variables used in this proposed research, particularly, determining the relationship between the CEO gender and firm performance. The firm size will be measured by employing the natural logarithm forms of the firm's total sales. This proxy had been used by Jadiyappa et.al., (2019). Furthermore, the firm age will be computed by subtracting the firm's establishment date from the current date. The resulting figure will show the number of years that have elapsed since the firm's establishment. Next, the last control variable will be measured by calculating the total number of directors serving on the firm's board. The Ordinary Least Square (OLS) method implies that multiple regression model is included in this research to study whether the independent variables have a significant effect on the dependent variable (i.e., firm performance). If the estimated *β_1, β_2, β_3,* and *β_4* is statistically significant, it shows that CEO gender, firm size, firm age, and number of directors have a significant effect on the firm performance. On the other hand, if the results are negligible, then there is no evidence that the explanatory variables will affect the firm performance.

RESULTS AND DISCUSSION

Descriptive Analysis

	FP	FS	FA	ND
Mean	0.0438	12.7740	42.8000	7.9467
Median	0.0362	12.9143	38.0000	8.0000
Maximum	0.4064	19.0668	140.0000	14.0000
Minimum	-0.5779	0.0000	2.0000	3.0000
Std. Dev.	0.1220	3.1408	27.4087	2.2844
Skewness	-1.7221	-0.2118	1.6281	0.3606
Kurtosis	11.0450	3.5267	6.4816	2.4295
Jarque-Bera	478.6522	2.8557	142.0236	5.2852
Probability	0.0000	0.2398	0.0000	0.0712
Observations	150	150	150	150

Table 1: Descriptive Statistics Analysis

Table 1 shows the result of the descriptive statistics analysis. The sample size in this study is 150. According to the table, it is observed that the mean for firm performance is 0.0438, indicating the average level of firm performance across the sample. Firm size, on average, is reported as 12.7740. The mean for firm age is 42.8000, reflecting the average age of the firms in the sample, while the mean for number of directors is 7.9467, indicating the average number of directors serving on the boards of these companies.

Next, examining the median values, which represent the midpoint of the distributions, we find that the median for firm performance is 0.0362, slightly lower than the mean. The median for firm size is 12.9143, indicating that half of the firms have sizes above this value and the other half below it. The median for firm age is 38.0000, suggesting that half of the firms have ages above this value and the other half below it. Similarly, the median for the number of directors is 8.0000, representing the middle value in the distribution of the number of directors.

Furthermore, the maximum values provide insights into the upper bounds of the variables. According to the table above, the maximum for firm performance is 0.4064, indicating the highest recorded level of firm performance in the sample. The maximum for firm size is 19.0668, representing the largest observed total sales among the firms. The maximum for firm age is 140.0000, indicating the longest-standing firm in the dataset. Lastly, the maximum for the number of directors is 14.0000, representing the highest number of directors serving on a board.

On the other hand, the minimum values indicate the lower bounds of the variables. The minimum for firm performance is -0.5779, representing the lowest recorded level of firm performance. The minimum for firm size is 0.0000, suggesting the presence of firms with no reported sales. The minimum for firm age is 2.0000, indicating the youngest firm in the dataset. Finally, the minimum for the number of directors is 3.0000, representing the lowest number of directors on a board.

Next, standard deviation measures the dispersion or variability in the data. According to the table above, the firm performance variable has a standard deviation of 0.1220, suggesting that performance levels vary around the mean. The firm size variable has a standard deviation of

3.1408, indicating the extent of variability in total sales among the firms. The firm age variable has a standard deviation of 27.4087, reflecting the dispersion in the ages of the firms. The number of director's variable has a standard deviation of 2.2844, indicating the variability in the number of directors on the boards.

Moreover, skewness measures the asymmetry of the data distribution. A negative skewness of -1.7221 for firm performance suggests that the distribution is skewed to the left, indicating a longer left tail and some firms with low performance levels. The skewness values for firm size (-0.2118) and firm age (1.6281) indicate slight deviations from a perfectly symmetrical distribution. The skewness of 0.3606 for the number of directors suggests a slight right skewness, indicating a longer right tail with some firms having a higher number of directors.

Lastly, kurtosis measures the peakedness or flatness of the data distribution. The kurtosis value of 11.0450 for firm performance indicates a high degree of peakedness and heavy tails.

Correlation of Variables

	FP	FS	FA	ND
FP	1.00			
FS	0.26	1.00		
FA	0.23	0.30	1.00	
ND	0.12	0.33	0.25	1.00

Table 2: Correlation of Variables

Table 2 above shows the result of the correlation of variables. From the table above, overall, it can be seen that all variables recorded positive correlation. A positive correlation between variables simply means, there is a tendency for the variables to move in the same direction. In other words, as one variable increases, the other variables also tend to increase. Similarly, as one variable decreases, the other variables also tend to decrease.

According to the table above, the firm size, firm age, and number of directors, all of these variables have positive correlation with the firm performance. The highest value of correlation for the firm performance is with firm size, which is 0.26. This really indicates that the firm's total sales positively correlated with firm performance. If the firm's total sales increase, it will increase the firm performance as well.

Furthermore, additional noteworthy correlations are observed between the variables. Firm size shows a positive correlation of 0.30 with firm age, indicating that larger firms tend to have been in operation for a longer period. Similarly, firm size demonstrates a positive correlation of 0.33 with the number of directors, suggesting that larger firms generally have a larger board of directors. Moreover, firm age and the number of directors exhibit a positive correlation of 0.25, indicating that older firms tend to have a higher number of directors on their boards.

Diagnostic Test Results

Diagnostic Test Result: Residual Diagnostics		
Type of Diagnostic Test	Coefficient	Probability
Jarque-Bera Normality Test	275.5407	0.000000

Table 3: Diagnostic Test Result

Based on our dataset for this study, the only diagnostic test that is available to be tested is the normality test. Hence, the table above shows the result of the diagnostic test for the residual diagnostics, particularly the Jarque-Bera Normality Test.

The null hypothesis for this test would be the residuals are normally distributed, whereas the alternative hypothesis is the residuals are not normally distributed. From the result of the Jarque-Bera test above, it is shown that the probability value is 0.000000. By using a significance level of 5% or 0.05, we can conclude that the probability value of 0.000000 is significant. This is because the probability value is less than 0.05. Hence, the null hypothesis will be rejected. The rejection of the null hypothesis indicates that the residuals are not normally distributed.

Panel Regression Results

Note: ** indicates significant at 5% level

Regression Result		
Variables	**Pooled OLS**	**Panel**
Gender	0.049688** (0.028687)	0.066955 (0.046461)
Fs	0.013069** (0.004484)	0.016795** (0.006202)
Fa	0.000896** (0.000381)	0.000818 (0.000685)
Nd	0.001374 (0.004518)	0.002678 (0.005094)
C	-0.197223** (0.074900)	-0.260488** (0.105807)
Hausman Test	-	1.482181
R^2	0.111112	0.069265
Adjusted R^2	0.086591	0.043590
F-Statistic	4.531292**	2.697724**

Table 4: OLS Regression Result

The results of the pooled OLS estimation are reported in Table 4. The results revealed that all the independent variables (CEO gender, firm size, firm age, and number of directors) have

positive relationship with firm performance. The results also revealed that firm size and firm age was significant in influencing the firm performance. Most importantly, it revealed that CEO gender was also significant in influencing the firm performance, and it can be seen that, on average, the firm performance led by female CEO is better than the firm led by male CEO by an additional 0.049688 million ringgits per year.

In order to further validate the findings, a panel data analysis had also been run as reported in the same table above. There are two classes of panel estimator techniques which are fixed effect model and random effect model. From the Hausman test result, it suggests that the random effect model is more appropriate. This is because the probability value of the Hausman test is 0.6864, which is greater than the 5% significance level. Thus, the null hypothesis is not rejected. The non-rejection of the null hypothesis indicates that the random effect model is more appropriate to be used and preferred.

Dependent Variable: Firm Performance

Random Effect Model Regression Result				
Variable	Coefficient	Standard Error	t-Statistic at 5%	Probability
Gender	0.066955	0.046461	1.441083	0.1517
FS	0.016795	0.006202	2.708272	0.0076
FA	0.000818	0.000685	1.194731	0.2341
ND	0.002678	0.005094	0.525799	0.5998
C	-0.260488	0.105807	-2.461921	0.0150
$R^2 = 0.069265$				
Adjusted $R^2 = 0.043590$				
F-statistic = 2.697724				
Prob (F-Statistics) = 0.033083				

Table 5: Random Effect Model Regression Result

Table above indicates more in-depth results of the panel random effect model regression analysis. It is important to note that the decision as to the significance or otherwise of any variables listed in the models depends on the use of 2-t rule of thumb as well as the corresponding probability value (P-value) of the variable.

According to the table, the coefficient of the constant or intercept term (-0.260488) is negative and statistically significant looking at its t-statistics and associated P-value, which are -

2.461921 and 0.0150 respectively. The intercept is expected to help predict the value of the dependent variable (firm performance) when all listed explanatory variables are assumed zero (0).

Next, the table above shows that the coefficient of the CEO gender is positive and statistically insignificant (looking at the t-statistics of 1.441083 and its corresponding P-value of 0.1517 which is greater than 0.05). The insignificant effect of CEO gender on the firm performance indicates that whether the firm is led by male or female CEOs, it does not have a major impact on the firm performance. This result agrees with prior expectation of our third hypothesis where the CEO gender does not affect the firm performance. In addition, this result also aligns with the study conducted by Ernestine & Setyaningrum (2019) who uncovered that the CEO gender does not affect the firm performance.

Furthermore, table above also shows the positive coefficient for the second independent variable (i.e., firm size, FS) which is 0.016795. The positive relationship between the firm size and firm performance implies that a unit rise in firm size is expected on the average to increase the firm performance by about 0.02%, holding other variables constant. In addition, the t-statistics and P-value of 2.708272 and 0.0076 respectively revealed that firm size is a statistically significant variable in this analysis, which means the firm size was significant in influencing the firm performance.

Next, the coefficient of the firm age (FA) as shown in the table above is 0.000818. The positive relationship between firm age and firm performance implies that a percentage rise in firm age will increase the firm performance by 0.0008%, while holding other variables constant. As for the t-statistics and P-value, it is 1.194731 and 0.2341 respectively. Since the P-value is greater than 0.05, it can conclude that firm age was insignificant in influencing the firm performance. Apart from that, the coefficient of the number of directors (ND) as shown in the table above is 0.002678. This positive coefficient indicates a positive relationship between number of directors and firm performance, whereby a unit rise in number of directors is expected on the average to increase the firm performance by 0.003%, holding other variables constant. In addition, the t-statistics and P-value of 0.525799 and 0.5998 respectively revealed that the number of directors was insignificant in influencing the firm performance.

Next, in terms of the coefficient of determination (or R-squared), it explains the proportions of the variability in the dependent variable (firm performance) that is explained by the explanatory variables. The table above revealed that the R^2 is 0.069265. This implies that the explanatory variables explained about 6.93% of the variations in the dependent variable in the model. The adjusted R^2 takes into consideration the sample size.

Lastly, the F-statistics (F-test) enables us to determine whether or not the entire regression model result is statistically significant. The decision rule is to reject the null hypothesis. Ho: "The regression model is not statistically significant" if the probability value is less than 5% or 0.05. From the table above, the value of the F-statistic is 2.697724 whereas the Prob (F-statistics) is 0.033083 (i.e., less than 0.05). Therefore, it is rational to reject the null hypothesis. The rejection of the null hypothesis indicates that the regression model is statistically significant.

Variable	Currency Exchange Rate
CEO Gender	(+) Insignificant
Firm Size	(+) Significant
Firm Age	(+) Insignificant
Number of Director	(+) Insignificant

Table 6: Summary of Results and Findings

Table above shows the summary of the results and findings of this study. According to the regression result, the CEO gender has a positive relationship with the firm performance. Since a binary variable is used for CEO gender, and 0 is assigned for male CEOs while 1 is assigned for female CEOs, the positive coefficient indicates a higher firm performance associated with having a female CEO. This means, the value of 0.066955 implies that, on average, firms with female CEOs have a firm performance that is 0.066955 million ringgits higher than firms with male CEOs, holding other variables constant. However, based on the result shown in the table above, the CEO gender was not significant in influencing the firm performance. This indicates that whether the firm is led by male CEO or female CEO, it does not play a substantial or significant role in determining firm performance outcomes. This insignificant result is in line with the study conducted by Ernestine & Setyaningrum (2019) who uncovered that CEO gender does not affect firm performance. As a matter of fact, numerous previous studies, as revealed through our comprehensive literature review, have consistently indicated that the CEO's education level, experience, and quality play a more substantial and significant role in influencing firm performance compared to their gender. For example, Urquhart & Zhang (2021) revealed that CEOs with PhDs increase firm performance by 3.03% while CEOs with a PhD from a highly ranked university increase firm performance by 4.65%. Other than that, Georgakakis & Ruigrok (2016) revealed that the firm performance has an advantage due to CEO's possessing a variety of experience. Lastly, Eisenbeiss, Knippenberg & Fahrbach (2014) revealed that CEO ethical leadership and firm performance go well together. These conclude that the CEOs qualities are key drivers of firm performance.

Next, according to the table above, the firm size has a positive relationship with the firm performance. This indicates, if the firm size increases by 1%, the firm performance will also increase by 0.016795%, holding other variables constant. Conversely, if the firm size decreases by 1%, the firm performance will also decrease by 0.016795%, holding other variables constant. Apart from that, the table above shows that firm size was significant in influencing the firm performance. The significant influence of firm size (total sales) on firm performance indicates that larger firms tend to exhibit better performance outcomes.

Next, the table above shows that firm age has a positive relationship with firm performance. This indicates that, if the firm age increases by 1%, the firm performance will also increase by 0.000818%, holding other variables constant. Conversely, if the firm age decreases by 1%, the firm performance will also decrease by 0.000818%, holding other variables constant. Apart from that, it is shown in the table above that the firm age has no significant effect on the firm performance.

Lastly, the table above shows that the number of directors has a positive relationship with the firm performance. The positive relationship between these two variables indicates that, if the number of directors increases by 1%, the firm performance will also increase by 0.002678%, holding other variables constant. Conversely, if the number of directors decrease by 1%, the firm performance will also decrease by 0.002678%, holding other variables constant. In addition, based on the result shown in the table above, the number of directors has no significant effect on the firm performance.

CONCLUSION

Our finding is associated with the 3rd hypothesis, which is that the ceo gender does not affect the firm performance. This is also in line with Ernestrine & Setyaningrum (2019) who uncovered that CEO gender does not have any effect on the firm performance. This conclusion supports the notion of equality and meritocracy in the business world, emphasizing that the qualifications, skills, and abilities of a CEO are more important determinants of firm performance than their gender. It suggests organizations should concentrate on evaluating applicants based on their competencies rather than their gender when selecting executive hires, challenging gender-based stereotypes and biases. The study's findings have a number of ramifications, including fostering equal opportunity, boosting the talent pool for leadership roles, allocating funds to larger initiatives that support an inclusive workplace, and guiding policy discussions about gender diversity and equality. It is crucial to note that this judgment is predicated on the particular research done and the methods used. Results from other research or from various circumstances might differ. It is advised that when making choices and developing policies on gender diversity in leadership roles, organizations and policymakers take a wider body of research into account.

The results of this study on "CEO gender and firm performance" provides valuable insights with implications for various stakeholders, including investors, policy makers, researchers, and the theory of knowledge. For investors, these findings imply that factors other than CEO gender, such as firm size, firm age, and the number of directors, are more influential in predicting firm performance. Investors can use this knowledge to make informed decisions when considering investment opportunities, focusing on aspects like the size of the firms and the experience and qualifications of the board of directors, including the CEOs themselves. This understanding helps investors to assess the potential for future growth and profitability within companies.

As for policy makers, they can benefit from these results by considering the implications for corporate governance and regulations. While CEO gender may not directly impact firm performance, policy makers can prioritize measures that promote diversity and equal opportunities within corporate leadership. By focusing on creating an environment that encourages gender equality, policy makers can foster a more inclusive and diverse business landscape, which in turn can lead to enhanced decision-making processes and overall organizational effectiveness.

For researchers, this study contributes to the existing literature by providing insights into the complex relationship between CEO gender and firm performance. The findings indicate that while CEO gender may not have a significant direct impact on firm performance, other variables such as firm size, firm age, and the number of directors play a crucial role. Researchers can further explore these variables and delve into the underlying mechanisms to better understand the dynamics of CEO gender, corporate governance, and firm performance. Additionally, future

studies can consider alternative measures or contextual factors to gain a comprehensive understanding of the relationship.

In terms of the theory of knowledge, this study aligns with several prominent theories, namely agency theory, stewardship theory, and upper echelon theory. The results suggest that agency theory, which focuses on the relationship between principals (shareholders) and agents (CEOs), may be less applicable in explaining the impact of CEO gender on firms' performance. Instead, the findings align with stewardship theory, emphasizing the importance of factors such as firm size and the number of directors in fostering effective leadership and governance. Additionally, the study contributes to the upper echelon theory by highlighting the significance of CEO characteristics beyond gender, such as experience and qualifications, in driving firm performance. These insights contribute to the border understanding of organizational theories and their application in real-world contexts.

To enhance firm performance, it is recommended that organizations prioritize merit and qualifications when selecting CEOs. Instead of focusing solely on gender, organizations should evaluate candidates based on their skills, experience, track record, leadership qualities and alignment with the organization's strategic goals. This approach ensures that the most qualified individuals are appointed as CEOs, regardless of their gender. Furthermore, organizations can benefit from gathering and evaluating gender-related information. Regularly collecting data on performance indicators and gender representation at various organizational levels allows organizations to assess their progress, identify areas for improvement, and make informed decisions. By using data-driven insights, organizations can actively promote gender diversity and contribute to their overall success. Regular reporting on gender-related indicators also demonstrated an organization's commitment to transparency and accountability.

For future researchers, it is recommended to build upon this study and explore additional factors that may influence the relationship between CEO gender and firm performance. Consider expanding the scope to different industries, countries, or cultural contexts to capture a broader understanding of the dynamics at play. Additionally, future research can delve into qualitative methodologies, such as interviews or case studies, to gain deeper insights into the experiences and perspectives of CEOs and how gender dynamics impact firm performance. Exploring potential interaction effects and moderating factors can also contribute to a more comprehensive understanding of the complex relationship between CEO gender and firm performance.

In conclusion, organizations can enhance their firm performance by emphasizing merit and qualifications in CEO selection processes and by actively monitoring and promoting gender diversity. Future research should continue to explore and expand upon the findings of this study, considering additional variables and employing diverse methodologies to deepen our understanding of the intricate interplay between CEO gender and firm performance.

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