



CEO Gender, Financial Performance and Firm Risk Level: Evidence from Indonesia

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ABSTRACT

This research evaluates whether firms managed by female CEOs exhibit an equal level of financial performance and are less risky than firms with male CEOs. The sample consists of manufacturing firms from 2010 to 2012. The results show that firms managed by female CEOs have better financial performance but higher risk levels, the latter probably resulting from their growth.

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INTRODUCTION

One of the issues of increasing interest in corporate governance is gender diversity in top management positions. Gender diversity is perceived as contributing to the improvement of corporate performance. Rosener (1990) argues that in a good collaboration, different leadership styles between male and female executives might be combined to result in improved corporate performance. This finding was confirmed by Aghazadeh (2004), revealing that diversified work environments may result in optimal performance and positive impacts on firms.

The role of women in corporate management has become a topic of increasing interest in recent years for researchers, in light of increasing numbers of women occupying managerial positions. A census using the S&P 500 index conducted by Catalyst in a number of countries in 2012 revealed that 16.6% of executive board of director positions in the US were occupied by women. Meanwhile, a census conducted by the Centre for Governance, Institutions, and Organizations of the firms listed on the Indonesia Stock Exchange in 2012 revealed that only 11.6% of top management positions were occupied by women. One of the causes of the low percentage of women in top management positions in Indonesia is the cultural stereotype prevailing in the country that men are more reliable in top management positions than women. Such cultural stereotypes may lead to firms' preferences in assigning their board of director posts.

A number of previous empirical studies have analyzed the relationship between diversity in the board of directors and improvements in corporate performance. Catalyst (2004) found that 500 large firms with a higher proportion of women in the board of directors had a higher return on equity than 500 large firms with lower proportions of women directors. A study by Erhardt et al. (2003) found positive and significant evidence about the relationship between the proportion of women and minority groups in the board of directors and return on assets (ROA) and return on investment in large firms in the US. The aforementioned study revealed that diversification between women and men at the level of top management positions might lead to improved corporate performance. Carter et al. (2003) found a positive and significant relationship between firms with female directors and Tobin's Q in a sample of 1,000 large firms. However, the results of the study are not in line with studies in Indonesia. Darmadi (2010) found evidence that the presence of women on the board of directors has a negative relationship with corporate performance or market performance. Indirectly, the higher number of women in the board of directors, the lower the performance of the firms.

In addition to financial performance, the present study also seeks to identify the relationship between gender of CEO and level of corporate risk by considering the different risk attitudes of women and men. Such difference is expected to affect decision making. Bruce and Johnson (1994) and Johnson and Powell (1994) found differences in the behaviours of women and men in the aspect of risk taking and showed that women have a lower likelihood of taking risk than men. Jianakoplos and Bernasek (2007) describe women as being more risk averse than men and state that this is apparent in the investment and financial decisions they make. Faccio et al. (2016) studied CEO gender and risk taking in firms and found that firms led by female CEOs have lower leverage, lower earnings with lower volatility, and greater survival opportunities than firms led by men.

The risk level of the firms in this study is developed from the model introduced by Faccio et al. (2016), while the financial performance is a developed version of the model introduced in the study by Khan and Vieito (2013). However, the perspective is different, in that this study uses the perspective of a developing country, Indonesia. In the context of Indonesia, the CEO is the person who holds the position of 'president director'. Khan and Vieito (2013) studied the relationship between gender of CEO and corporate performance and found a positive relationship between gender of CEO and corporate performance in developed countries.

THEORETICAL REVIEW AND HYPOTHESIS DEVELOPMENT

Resource Dependence Theory

Resource dependence theory is the fundamental theory commonly used in looking at membership composition of boards. This theory was popularized by Pfeffer and Salancik (1978), who argued that the corporate board of directors serves the function of relating firms to external parties to deal with resource dependence. Diversity in an organization may open new talents in firms, and diverse composition of the board of directors provides access to important constituents of the external environment. The four main benefits obtained in the establishment of

external environment connections are: provision of resources such as information and expertise; creation of communication channels with corporate constituents; provision of supporting commitments from important organizations and groups in the external environment; and creation of legitimacy for firms in the external environment.

Hillman et al. (2007) found empirical evidence concerning the resource dependence theory. Their study revealed that the number of women occupying positions on the corporate board of directors has increased over the years. However, women's representation is far lower than the expected rate. The study used resource dependence theory and a sample data panel for the years of 1990 and 2003. The researchers found that size of organization, type of industry, strategy, and network effects (the relationship between female members of the board of directors and other members of the board) significantly impacted on women's representation on the board. Therefore, it can be concluded that resource dependence theory is closely related to diverse members of the board of directors and is therefore in line with studies into the effect of CEO gender on financial performance.

Agency Theory

The concept of agency theory reflects the relationship and contract between the principal and the agent. The principal employs the agent to perform the tasks as expected by the principal, including the delegation of decision making to the agent.

In firms whose capital derives from shares, shareholders will serve as the principal and the CEO as the agent. Agency theory assumes that each individual is exclusively motivated to satisfy his or her own needs; consequently, conflict between principal and agent may occur. A CEO may have taken a particular decision to maximize their utility, and this may be in contradiction to the utility of shareholders. Carter et al. (2003) suggested that the diverse composition of the board of directors might lead to better supervision of managers because diversity may lead to the independence of members. This is also in line with the proposition of Gul et al. (2011) that the involvement of women in the board of directors would improve the then poor corporate governance because a diverse membership of the board of directors will improve corporate accountability. Therefore, agency theory can be applied to identifying the effect of CEO gender on financial performance.

Corporate Governance

One of the ways of dealing with possible agency conflict between principal and agent is the implementation of 'good corporate governance'. The issue of good corporate governance was introduced in 1934 in response to the growing separation of ownership from management in firms. In this separation, owners delegate the power to run firms and make decisions on behalf of the owners to manager and directors (Berle and Means, 1932).

The objective of corporate governance is to ensure the satisfaction of the interests and rights of stakeholders and to protect these interests and rights from authority abuse by management. According to the National Committee on Governance (Komite Nasional Kebijakan Governance), there are five main elements in corporate governance: transparency, accountability, responsibility, independence and fairness. The presence of these five elements is expected to minimize agency conflict.

The board of directors is the corporate body in charge of corporate management. It has the power to make, or at least to ratify, all daily and important decisions, such as policies for investment and compensation. However, in practice, these decisions are carried out under the umbrella of collective responsibility. The CEO serves to coordinate all the activities of the board of directors. This study focuses on the position of the CEO as the decision-maker in firms.

Appointment of Women as CEOs

There are a number of studies revealing negative responses of stock exchanges after the appointment of female CEOs. One of these studies, conducted into firms listed on the Singapore Stock Exchange, found that investors positively reacted to the appointment of women as members of the board of directors, but reacted less positively when women were appointed as CEOs. The data reveals that the mean abnormal return when firms appoint women as CEO decreased by 1.3% on the announcement day (Eugene et al., 2009). Using data from 3,000 firms in the US and applying the Fama-French model, the researchers found that abnormal return reacted positively but insignificantly to the announcement of the appointment of a female CEO but there was no reaction to the appointment of a male CEO (Gondhalekar and Dalmia, 2007).

Research conducted by Powell and Ansic (1997) did not find any significant difference between men and women in the aspect of financial decision making. Carter et al. (2003) found that firms with two or more women on the board of directors had better performance and unchanged ROA. In addition, the study revealed that women were as capable as men in investment decision making (Estes and Hosseini, 1988; Barber and Odean, 2001; Atkinson et al., 2003). With the increasing number of female leaders in the business world, there is growing confidence that women are equally competent to men. This confidence may lead to the eradication of gender discrimination.

Corporate Risk: Standard Deviation of Stock Return

The standard deviation of stock return is the indicator commonly used by investors and market actors to measure risk. Stock risk can be defined in accordance with Markowitz's theory of portfolio selection (1952), in which risk is either systematic or unsystematic. In general, studies use total risk as a corporate indicator. Standard deviation is considered appropriate as the proxy to reflect the risk of firms in the market because it has a direct effect on the market price and provides a large effect on investors. Market price is used as the risk parameter because the fundamental corporate condition will be reflected in the stock price. The increase and decrease of stock price will have an impact on the return earned by investors. Volatility is the nature of uncertainty risk. Therefore, a higher volatility rate of corporate stock return might result in higher risk of a firm failing to generate the expected return for investors.

Financial Performance

Corporate performance is measured by particular parameters used to identify the success of firms in terms of profit earning. Performance is very important because it reflects corporate ability to allocate resources. Beiner et al. (2003), Jensen (1993) and Lipton and Lorsch (1992) confirm that corporate performance is associated with the policy of directors.

Corporate performance can be measured by several indicators, one of which is profitability. Profitability is described by the use of total assets or net assets effectively recorded in the balance sheet. Effectiveness is reflected by the extent of asset use in net income. Venkatraman and Ramanujam (1986) state that corporate performance is centred on the use of financial indicators based on outcome and is assumed to reflect achievement of corporate economic objectives. Financial performance can be measured in various ways, such as absolute measurements (sales, profit), return-based measurements (profit/sales, profit/capital, profit/equity), internal measurements (profit/sales), external measurements (market value of the firm) and many others. In this paper, performance is measured by ROA.

Hypothesis Development

This study is designed to identify the relationship between gender of CEO and corporate performance. Resource dependence theory as an underlying aspect of a number of studies has disclosed that female leaders are more democratic, more detail-oriented and have higher moral integrity than men; consequently, they may apply better policies. Rosener (1990) revealed that in leadership women are more likely to be democratic while men tend to be authoritarian. Female leaders will motivate their staff to actively participate and motivate them to accomplish their responsibilities and their democratic leadership style provides extensive authority to subordinates. In addition, women are more likely to be resilient and to have higher levels of commitment, leading to better ability in corporate governance (Rosener, 1990). Ford and Richardson (1994) argue that women are more ethical in work environments than men. Based on the characteristics of women described by previous studies, the following hypothesis is developed:

H₁: Firms with female CEOs will have better performance than firms with male CEOs

Vandergrift and Brown (2005) argue that women are more risk averse than men and that different risk attitudes have an effect on financial decisions. Niessen and Ruenzi (2006) confirm this proposition and reveal that women who manage mutual funds are seen to take a lower level of unsystematic risk and to prefer more stable investment strategies than men. Based on this, the following hypothesis is developed:

H₂: Firms directed by female CEOs will have lower risk levels than firms directed by male CEOs.

RESEARCH METHODS

The model employed in this study is developed from Khan and Vieito (2013). This study measures financial performance by incorporating family ownership as the control variable, and this is important since most firms in Indonesia are owned by families. This study also develops a risk-level measurement introduced by Khan and Vieito (2013) and the model developed by Faccio et al. (2016). The testing model for the impact of CEO gender on financial performance is:

$$ROA_{it} = \beta_0 + \beta_1 CEO_{it} + \beta_2 SIZE_{it} + \beta_3 LEVERAGE_{it} + \beta_4 TENURE_{it} + \beta_5 MEETINGS_{it} + \beta_6 FAM_{it} + \varepsilon_{it}$$

while the testing model for the impact of CEO gender on corporate risk level is:

$$RISK_{it} = \beta_0 + \beta_1 CEO_{it} + \beta_2 SIZE_{it} + \beta_3 GROWTH_{it} + \beta_4 ROA_{it} + \beta_5 AGE_{it} + \varepsilon_{it}$$

- ROA_{it} = Return on asset of firm *i* at the end of the period
 CEO_{it} = Dummy variable with a score 1 for observations with women as CEO and 0 for observations with men as CEO
 SIZE_{it} = Size of firm measured by the natural logarithm of total assets in firm *i* at the end of the period
 LEVERAGE_{it} = Corporate leverage measured by dividing the total liabilities by total assets of firm *i* at the end of the period
 TENURE_{it} = Number of years of CEO in post
 MEETINGS_{it} = Number of meetings per year arranged by the board of directors in firm *i*
 FAM_{it} = Dummy variable with a score of 1 for family-owned firms and 0 for firms not family owned
 RISK_{it} = Risk level of firms measured by standard deviation of weekly stock return
 GROWTH_{it} = Corporate growth measured by percentage of change in current total sales value from previous total sales
 AGE_{it} = Age of firm *i* at the end of the period.

RESULTS

Description of Sample

The data used in this study are taken from the annual report of manufacturing firms listed on the Indonesia Stock Exchange (ISE) for the period 2010–2012. The number of manufacturing firms listed in the ISE is 144 for 2010, 145 for 2011 and 144 for 2012, giving a total population of 433. The process of sampling is presented in Table 1.

Table 1 Selection of sample

Description	Number of corporate annual reports
Number of manufacturing firms listed in the ISE in years 2010, 2011 and 2012	433
Number of manufacturing firms with incomplete data	(253)
Total sample	180

Descriptive Statistics

In the process of data processing, having first checked whether the data had any outliers, winsorization at 5% using STATA was performed to overcome the issue of outliers.

Table 2 shows that the corporate mean ROA in the sample is 0.094, implying that the mean capacity of firms observed in terms of asset use efficiency is 9.4%. Variable ROA has above-average standard deviation of 0.099. This is also reflected in the wide range between minimum and maximum scores, from -0.163 in UNTX in 2010 to 0.391 in MLBI in 2011. Therefore, corporate ROA in the sample of this study varies. The variable CEO has a mean value of 0.067, implying that 6.67% of the sample has a female CEO.

Table 2 Descriptive statistics

Variable	Minimum	Maximum	Mean	Std. Deviation
ROA	-0.163	0.391	0.094	0.099
CEO	0	1	0.067	0.250
SIZE(in millions)	147,882	182,274,000	7,000,069	20,767,157
LN_SIZE	25.720	32.704	28.179	1.505
LEV	0.094	1.290	0.472	0.204
TNR	1	40	10.939	10.399
NOM	1	54	17.311	13.654
FAM	0	1	0.317	0.466
GROWTH	-0.309	3.481	0.199	0.378
RISK	0.137	0.349	0.155	0.025
AGE	1	107	38.15	20.19

The variable SIZE refers to two measures: real total asset value and value after being converted to a natural logarithm. Natural logarithms have to be applied because of the asset unit, the value of which is very different from other variables. It is known that the mean value of the assets in the sample is Rp7 trillion. The standard deviation of the total assets is very different from the mean, at RP20 trillion. This finding reveals a significant gap between the maximum and minimum total assets of manufacturing firms. The highest asset value (of Rp 182 trillion) is for ASII in 2012, and the lowest asset value (of Rp147 trillion) is for ALKA in 2012.

The variable LEV has a mean value of 0.472, implying that 47.2% of corporate mean assets derive from loans. The maximum value of 129% is found in UNTX, and the minimum value of 0.94% is found in TCID in 2010. The variable TNR has a mean value of 10.939, implying that the mean tenure of CEOs is in the range of 10 to 11 years. The minimum value is 1 year (in 15 firms), and the maximum value is 40 years in JECC in 2012. Tenure of 1 year reflects the replacement of CEOs due either to the end of tenure or to resignation.

The variable NOM has a mean value of 17.311, implying that, on average, firms hold 17–18 board meetings during each year. The minimum value is found in ICBP in 2010 with a score of 1, and the maximum value is found in KRAS in 2012 with a score of 54. The variable FAM has a mean value of 0.317, meaning 31.7% of firms are family-owned.

The variable GROWTH has a mean of 0.199, implying that average sales increase from the previous year is 19%. The minimum value is -0.309 and maximum value is 3.481. This quite large gap has resulted in a large standard deviation, of 0.378. The variable RISK has a mean of 0.155 and relatively little standard deviation of 0.025. This reveals that risk in manufacturing firms is similar, with a minimum value of 0.137 and a maximum value of 0.349. The variable AGE is the age of firms, with a minimum value of 1 year for ICBP and a maximum of 107 years for TPIA and HMSP. Mean AGE is 38.15 years.

Correlation Analysis

Bivariate correlation analysis using the Pearson correlation coefficient was performed to reveal the relationship between variables in each model, as presented in Tables 3 and 4.

Table 3 Pearson correlation for Model 1

VARIABLE	ROA	CEO	SIZE	LEV	TNR	NOM	FAM
ROA	1						
CEO	0.0937	1					
SIZE	0.2897	0.0056	1				
LEV	-0.3702	-0.0754	0.0044	1			
TNR	-0.1551	0.0338	-0.2926	0.1083	1		
NOM	0.0920	0.1411	0.2003	0.0371	0.0263	1	
FAM	0.0253	0.2490	-0.0619	-0.0243	-0.2724	0.1643	1

Table 4 Pearson correlation for Model 2

Variable	RISK	CEO	GROWTH	AGE	SIZE	ROA
RISK	1					
CEO	0.1335	1				
GROWTH	0.2957	0.0568	1			
AGE	-0.1494	-0.0564	0.0037	1		
SIZE	-0.0287	0.0056	0.1379	0.2454	1	
ROA	-0.0510	0.0937	0.0264	0.3956	0.2897	1

As shown in Table 3, ROA has a positive correlation to CEO with a correlation rate of 9.37%, implying that a female CEO can improve the performance of her company. ROA has a positive relationship with SIZE, at a correlation rate of 28.97%, suggesting that the greater extent of total assets in larger companies will result in better corporate performance. ROA has a negative correlation with LEV, with a rate of 37.2%, meaning that the smaller the leverage value of a company the higher its ability to improve its performance. ROA has a negative correlation of 15.51% with TNR, implying that shorter periods of CEO tenure will increase company performance. ROA has a positive correlation of 9.2% with NOM, implying that the more frequent the meetings of the board of directors the better the corporate performance of a company. ROA has a positive correlation of 2.53% with FAM, suggesting that if a company is owned by a family then its performance will be better.

In Table 4, the RISK variable has a positive correlation to CEO, with correlation rate of 13%. From this, it can be said that a company led by a female CEO is subject to increased risk. Meanwhile, RISK has a positive relationship with GROWTH with a 29% correlation rate, meaning that risk increases as a firm grows. RISK is negatively correlated with AGE, at a 14% correlation, suggesting that the younger company has a greater level of risk. RISK to SIZE has a negative correlation, implying that companies with large assets are likely to have relatively lower risk levels. This is related to the ability of large companies to diversify risk through more diversified strategies.

In addition to studying the dependent variable relationships with the independent ones, correlation analysis has also been performed to identify the existence of a multicollinearity problem, with a tolerable correlation of 75%–80%. Multicollinearity problems are not found in the data used in this study because the value of the correlation between independent variables is below the stipulated limit.

Analysis of Hypothesis Testing

The selection of panel models was based on the Chow test, Breusch-Pagan Lagrange Multiplier (LM) test and Hausman test. For the first model, that is, CEO gender association with company financial performance, the first test performed was the Chow test, to enable a choice between using a common effect or fixed effect model. It was found that the F-statistic probability value was less than 0.05 and it was therefore concluded that the first model should use a fixed effect approach.

The model specification test was then followed by the LM test, to test whether both models should best use a common effect or a random effect approach. With 180 samples, it was found that the probability value of chi-square was less than 0.05, indicating the use of a random effects. Furthermore, a Hausman test was performed to identify whether the model should use fixed effects or random effects. The Hausman test for both models gave a P value of less than 0.05, and so the first-panel data model in this study most appropriately uses fixed effects.

In the second model, the association between CEO gender and company risk level, it was found that the F-statistic probability was greater than 0.05. From this it can be concluded that the second model would be better using a common effect approach. Finally, the LM test shows that the second model should also use the common effects model.

Effect of CEO Gender on Financial Performance

Hypothesis 1 is intended to identify the effect of female corporate leaders on financial performance. The results of regression presented in Table 5 reveal that the CEO variable has a positive and significant effect on the ROA variable. This implies that female CEOs have a significant effect on firm profitability. In other words, consistent with resource dependence theory, firms with female CEOs are more likely to have better performance than firms with male CEOs. Results of the first testing are in line with Khan and Vieito's study (2013).

Table 5 Regression results of the first model

<u>Model</u>					
$ROA_{it} = \beta_0 + \beta_1 CEO_{it} + \beta_2 SIZE_{it} + \beta_3 LEVERAGE_{it} + \beta_4 TENURE_{it} + \beta_5 MEETINGS_{it} + \beta_6 FAM_{it} + \varepsilon_{it}$					
Variable	Expected sign	Coefficient	Robust standard error	Probability	
CEO	+	0.0588	0.734	0.0515**	
SIZE	+	-0.0435	0.529	0.0000*	
LEV	-	-0.1591	0.142	0.0000*	
TNR	+	0.0033	0.026	0.0335**	
NOM	-	-0.0009	0.030	0.0160**	
FAM	-	-0.0353	0.068	0.1080	
N			180		
R-sq (within)			0.265		
F-Statistic			10.460		
Prob (F-statistic)			0.000		

Note: *Significant at the level of $\alpha = 1\%$. **Significant at the level of $\alpha = 5\%$. ***Significant at the level of $\alpha = 10\%$. $ROA_{i,t}$ = return on assets of firm i at end of period; CEO = dummy variable with the value of 1 for observations with women as CEO and 0 for observations with men as CEO; $SIZE_{i,t}$ = size of firm measured by natural logarithm from the total assets of firm i at end of period ; $TNR_{i,t}$ = tenure of CEO in firm i measured by number of years; $NOM_{i,t}$ = number of shareholder meetings per year of firm i ; $LEV_{i,t}$ = debt to total assets of firm i in year t .

It is likely that women are more resilient and have a higher commitment to ensuring better corporate governance. In addition, women are likely to be more democratic in leadership and are more likely to involve subordinates in decision making (Rosener, 1990). This leadership style can trigger the creation of a more comfortable and convenient work environments that may lead to improved departmental performance and corporate profitability.

The SIZE variable has a negative and significant effect on ROA. This may be because the firms are expanding and have not yet earned expected profit. Alternatively, the firms may not have been efficient in their profit earning. LEV has a negative and significant effect on ROA, and this implies that the higher the leverage, the lower the ROA. Tenure has a positive and significant effect on ROA, a finding which is in line with Simsek's study (2007) revealing that the longer the tenure of a CEO, the better its corporate governance and performance. NOM has a negative and significant relationship with ROA, in line Vafeas' study (1999), which found a negative relationship between the frequency of board meetings and corporate performance. The more frequently the board of directors meet, the worse the performance, probably because these board meetings are likely to be reactive rather than proactive.

Effect of CEO Gender on Corporate Risk Level

Hypothesis 2 is tested to identify the effect of female leaders on corporate risk level. The results of regression presented in Table 6 reveal that the variable CEO has a positive effect on corporate risk level. This implies that firms led by female CEOs are likely to have either equal or higher risk levels than firms led by male CEOs. Results of the testing reveal this results in contrast to the hypothesis. Khan and Vieito (2013) also found in their study that risk level might increase in line with the growth of firms even though the firms were led by female CEOs.

Table 6 Regression results of the second model

<u>Model 2</u>					
$RISK_{it} = \beta_0 + \beta_1 CEO_{it} + \beta_2 SIZE_{it} + \beta_3 GROWTH_{it} + \beta_4 ROA_{it} + \beta_5 AGE_{it} + \varepsilon_{it}$					
Variable	Expected sign	Coefficient	Robust standard error	Probability	
CEO	-	0.0108	0.737	0.675***	
GROWTH	+	0.0195	0.244	0.000*	
AGE	-	-0.0001	0.141	0.038**	
SIZE	-	-0.0006	0.027	0.3010	
ROA	+	0.0034	0.033	0.4325	
N			180		
Adj. R-sq			0.0980		
F-Statistic			4.89		
Prob (F-statistic)			0.0003		

Note: *Significant at the level of $\alpha = 1\%$. **Significant at the level of $\alpha = 5\%$. ***Significant at the level of $\alpha = 10\%$. $RISK_{i,t}$ = risk level of firm i at the end of period; CEO = dummy variable with score 1 for observations with women as CEO and 0 for observations with men as CEO; $SIZE_{i,t}$ = size of firm measured by natural logarithm from the total asset of firm i at end of period; $ROA_{i,t}$ = net income to total assets of firm i in year t ; $GROWTH_{i,t}$ = growth of sales of firm i from year $t-1$. $AGE_{i,t}$ = age of firm.

The variable GROWTH has a positive and significant effect on RISK. This finding is in line with the hypothesis that the higher the corporate growth, the greater the risk. AGE has a negative and significant effect on RISK, and this is in line with the hypothesis that young firms are likely to have higher risk levels. It should be noted that the adjusted R-sq in the second model is relatively low (9%) compared to Model 1. Although this level is accepted for social sciences, it can be interpreted as suggesting that there are many other factors not yet incorporated in the model that can explain the variations in the corporate risk level.

SENSITIVITY ANALYSIS

In testing the robustness of the results, we changed the proxy for the dependent variable in Model 1 from ROA to net profit margin (NPM). According to Alexandri (2008), NPM is the ratio used to reveal corporate capability in the earning of after-tax net income. This ratio is used to identify the percentage of net income resulting from sales to represent net income per Rp of sales. NPM has been frequently used in previous studies to measure corporate performance and reveal corporate profitability level. A higher NPM would result in a better corporate performance because firms will be more efficient in their operational cost spending.

The result of hypothesis testing (untabulated) reveals a result consistent with the first hypothesis: the variable CEO reveals a positive and significant effect on the variable NPM. This implies that female CEOs have a significant and positive effect on corporate profitability.

CONCLUSIONS

This study assessed the effect of CEO gender on financial performance and risk level of firms listed in the ISE, and reveals a number of conclusions. Female CEOs are found to have a positive and significant effect on ROA. In other words, being led by a female CEO can improve financial performance. This might be because women are more resilient and have a higher level of commitment to ensuring better corporate governance. In addition, women are also more likely to be democratic in their leadership styles, involving subordinates in decision making. This style can trigger the creation of a more comfortable and convenient work environment which ensures departmental performance and corporate profitability.

On the other hand, female CEOs are found to have a positive effect on corporate risk level, meaning that firms led by female CEOs are likely to have equal or higher risk levels than firms led by male CEOs. The result is opposite to the hypothesis, a finding that may reflect that firms led by female CEOs are in faster growth than other firms in the sample, with consequent higher levels of the risk.

LIMITATIONS AND SUGGESTIONS

The followings are the limitations of the current study and suggestions for further studies.

First, incomplete data was collected from corporate annual reports for the number of meetings and CEO tenure. As a result, some data was excluded from the study. This indicates that firms have low compliance with the prevailing regulations, because it is expected that firms should disclose this information in their annual reports.

Second, the scope of the sample was limited to manufacturing firms from 2010 to 2012. The researchers considered the different ability in generating net income across different industries and therefore only one industry was used, to enable comparison among firms. It is expected that further studies could involve all industries and more research periods.

Third, only a few CEOs in the sample were women, with 6.67% of the total sample being female directors. This implies that CEOs of firms in Indonesia are predominantly men, and this might affect the results.

Fourth, it should be noted that the results may be affected by endogeneity which has not been addressed in this research. The most obvious source of endogeneity related to this study is selection bias, and so it is recommended that bias is tested in any future study.

Generally, the results of this research reveal the need for further studies to take a larger sample and a wider range of research periods to obtain results that are more accurate. In addition, further studies should include such factors as age, education, ethnicity and corporate governance measures. In addition, it is suggested that further studies should seek recent literature to add to or reduce the operational variables so that the model can explain the dependent variables more effectively.

Results of this study reveal that firms led by female CEOs will have an improved financial performance. It is recommended that firms should employ credible and capable women in the position of CEO, and to this end should provide the resources necessary to improve women's capacity to occupy leading positions in the future. Another implication is that investors should consider women's capabilities in earning net income for firms. This is particularly true for long-term investors in order to predict corporate financial performance.

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