Journal of Enterprise and Development (JED)
Vol. 6, No. 1, 2024
ISSN (PRINT): 2715-3118, ISSN (ONLINE): 2685-8258

CEO characteristics and corporate debt: An in-depth analysis in the Indonesian context

Heriyanto Heriyanto[1,2,*]
Universitas Katolik Musi Charitas, Indonesia[1]
Universitas Sriwijaya, Indonesia[2]
Corresponding e-mail: heriyanto@ukmc.ac.id*

ABSTRACT

Purpose — *This study aims to investigate differences in debt policies among companies listed on the Indonesia Stock Exchange, with a focus on gender and CEO tenure.*

Method — *This research was carried out on non-financial companies listed on the Indonesia Stock Exchange from 2013 to 2022. The sampling method employed in this study was a purposive sampling approach. The initial sample comprised 86 companies, and the final sample consisted of 65 companies, yielding a total of 650 observations. The data analysis technique utilized in this study is the independent difference test, employing a nonparametric approach through the Mann-Whitney test.*

Result — *This study revealed significant disparities in debt policies among companies listed on the Indonesia Stock Exchange, depending on the gender of the CEO. Specifically, male CEOs demonstrated a propensity to employ higher levels of debt compared to their female counterparts. Conversely, with regard to CEO tenure within the company, no significant difference was observed in relation to the company's debt policy.*

Novelty — *The novelty of this research lies in its emphasis on the importance of examining the gender and tenure of CEOs concerning the company's debt levels. The extended research period contributes a unique element by providing a more comprehensive perspective, and this is particularly noteworthy in the context of Indonesian studies, which have been relatively scarce and have yielded mixed results.*

Keywords: *gender, tenure, CEO, debt to equity ratio*

INTRODUCTION

The role of the CEO is crucial in shaping various strategic policies within a company. According to the upper echelon theory, top management, being the primary strategic decision-maker in the organization, bears responsibility for the overall outcomes of the organization (Finkelstein & Hambrick, 1990). The experience of a director overseeing company operations significantly influences strategic policies, including those related to the company's capital structure (Abor, 2007). Numerous past studies have explored the impact of CEO characteristics on various strategic company policies, such as investment cash flow policy, dividend distribution, CSR, firm sustainability performance, bank risk reduction effort, information disclosure intellectual capital, investment in R&D, innovation performance, corporate governance, financial reporting quality, and IPO performance.

Capital structure policy is a frequently discussed financial topic, with several studies investigating the relationship between CEO characteristics and company capital structure policies (Asiamah et al., 2023). Research on this relationship has been conducted in various countries, revealing diverse findings. For instance, a study of 116 companies in Nigeria from 2011-2021 found that male CEOs tended to use more debt than female CEOs, and CEO age negatively affected debt use ratios, with older CEOs employing lower debt compared to younger CEOs (Awen & Yahaya, 2023). In contrast, research on 179 companies in Pakistan from 2009-2015 found that male CEOs used higher debt ratios than female CEOs, and CEO tenure had a

Journal of Enterprise and Development (JED) is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

positive effect on debt ratios, with longer-tenured CEOs having higher debt ratios (Naseem et al., 2020). Additionally, a study on 123 non-financial companies on the Colombo Stock Exchange in Sri Lanka from 2012-2019 found that male CEOs used more debt than female CEOs, and older CEOs tended to use higher debt, attributing this to their experience and precision in financial decision-making (De Silva & Banda, 2022).

However, the existing research results on the influence of CEO characteristics on capital structure policies are mixed. Some studies suggest that female CEOs are more likely to take risks and use more debt (Ting et al., 2015), while others found that female CEOs could not reduce business risks in unhealthy bank conditions (Birindelli et al., 2020). This variety underscores the need for further research on the relationship between CEO characteristics and debt policy.

In the context of Indonesia, research on the relationship between CEO characteristics and corporate debt policies is limited and yields mixed results. For instance, studies on manufacturing companies on the Indonesia Stock Exchange from 2017-2021 found that male CEOs tended to use more debt than female CEOs, but CEO tenure had no effect on debt levels (Ramadana & Mariana, 2023). Another study on non-financial companies on the IDX from 2010-2017 found that younger male CEOs tended to have higher debt, while CEO experience and education had no effect on debt levels (Nilmawati et al., 2021). In contrast, research on manufacturing companies in Indonesia during 2020 found that neither gender nor CEO age influenced a company's debt levels (Hayong & Pandin, 2023).

This study contributes to the existing research in Indonesia by employing a relatively long research period (10 years) and applying sample criteria with a minimum CEO tenure of at least 5 years. The research methodology involves an independent average difference test using Mann Whitney, in contrast to other studies that used linear regression with panel data. The primary objective of this study is to examine differences in debt policies among non-financial companies on the Indonesia Stock Exchange based on CEO characteristics, specifically gender and tenure.

METHOD

This research is a quantitative study with a comparative approach, intending to analyze the relationship between gender differences and CEO tenure with debt policies in non-financial companies listed on the Indonesia Stock Exchange. The population in this study comprises all non-financial companies listed on the Indonesia Stock Exchange. The sampling method employed is purposive, guided by specific criteria, including:

1. Non-financial companies listed on the Indonesia Stock Exchange from 2013 to 2022,
2. Non-financial companies with complete financial statements and necessary data for the period 2013-2022,
3. Non-financial companies with a president director serving a minimum tenure of 5 years in the same position,
4. Companies with positive retained earnings throughout the study period, and
5. Companies presenting financial statements in rupiah

The initial sample size for this study consisted of 86 companies listed on the IDX during the period 2013-2022. Among these, two companies had incomplete Debt-to-Equity Ratio (DER) data, one company reported a negative DER, and 18 companies underwent CEO changes during the study period (2013-2022). Consequently, the final sample for this study comprised 65 companies, resulting in a total of 650 observations.

This study employed documentation methods for data collection. The majority of the data were sourced from the IDX website and StockBite websites. Essential data included the CEO's (President Director) profile information, facilitating the collection of data on the CEO's gender and tenure, along with data on the Company's Debt-to-Equity ratio. Before conducting the independent average difference test for hypothesis testing in this study, an assumption test was performed. This test included normality testing and homogeneity (similarity) variance testing. If the normality and homogeneity assumptions are not met, a nonparametric difference test, such as the Mann-Whitney test, is then employed.

Hypotheses development

CEO tenure and corporate debt policy

Upper echelon theory posits that managerial background characteristics influence strategic choices, and the resulting outcomes impact company performance (Hambrick & Mason, 1984). The CEO's tenure serves as one indicator of these characteristics, as per the upper echelon theory. According to Ting et al. (2015), the CEO's tenure significantly influences decision-making, particularly in financial leverage decisions. Finkelstein and Hambrick (1990) elucidated that newly appointed CEOs tend to have an external focus, emphasizing building the company's image, and purportedly exhibit greater risk aversion, leading to the use of less debt. As tenure increases, CEOs gain confidence and become more adept at handling challenges in their financial decision-making (Naseem et al., 2020). More confident CEOs, with increasing tenure, demonstrate greater courage in taking financial risks by leveraging more debt to enhance the company's financial performance.

H1: There exist differences in corporate debt policies based on the CEO tenure

CEO gender and corporate debt policy

Taylor et al. (2009) examines variations in individual behavior attributed to gender differences. Generally, men exhibit characteristics such as aggressiveness, emotional detachment, ambition, objectivity, competitiveness, confidence, logical reasoning, leadership, and independence. In contrast, women are associated with traits like gentleness, emotional expressiveness, virtuousness, religiosity, sensitivity to others' feelings, a need for security, tidiness, and dependence on others. According to Deaux and LaFrance (1998) cited in (Taylor et al., 2009), men are typically rated higher than women in traits related to competence and expertise, including leadership, objectivity, and independence. Conversely, women tend to receive higher ratings in traits associated with warmth and expression, such as gentleness and sensitivity to others' feelings.

De Silva and Banda (2022) found that male CEOs are perceived as more aggressive and confident than their female counterparts, leading them to be more inclined to take financial risks by leveraging more debt to enhance the company's financial performance. Meanwhile, Hidayat and Rahman (2022) revealed that female CEOs are relatively more conservative, exhibiting a greater tendency to avoid risk by being more inclined to retain cash (internal funds). Additionally, Jackson et al. (2009) cited in (Varadina & Diatmika, 2018) stated that female CEOs are more conservative in carrying out duties related to accounting practices and finance.

H2: Differences exist in corporate debt policies based on the CEO gender

RESULT AND DISCUSSION

Statistical findings

Prior to examining the disparity in the average Debt-to-Equity Ratio (DER) of the company based on CEO gender and CEO tenure, assumption testing was conducted. This testing included assessing the normality of research data and examining the homogeneity of variance within the data groups.

Table 1. DER variable normality test based on CEO gender

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	CEO_Gender	Statistic	df	Sig.	Statistic	df	Sig.
DER	Female CEO	.168	90	.000	.862	90	.000
	Male CEO	.302	560	.000	.397	560	.000
a. Lilliefors Significance Correction							

Source: Processed data (2023)

The data processing results presented in Table 1 reveal that there are only 9 companies led by female CEOs, whereas those led by male CEOs total 56. Furthermore, Table 1 indicates that the data on companies' Debt-to-Equity Ratio (DER) based on the CEO's Gender group exhibits an abnormal distribution, as evidenced by Kolmogorov-Smirnov (KS) and Shapiro-Wilk (SW) significance values falling below 0.05.

Table 2. DER variable normality test based on CEO tenure

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	CEO_Tenure	Statistic	df	Sig.	Statistic	df	Sig.
DER	< 18 years	.120	341	.000	.857	341	.000
	> 18 years	.337	309	.000	.398	309	.000
a. Lilliefors Significance Correction							

Source: Processed data (2023)

Table 2 shows that the data for companies' Debt-to-Equity Ratio (DER) categorized by CEO's tenure group is not normally distributed, as indicated by the significance values of Kolmogorov-Smirnov (KS) and Shapiro-Wilk (SW) tests, both of which are below 0.05.

Table 3. Research data group variance similarity test

Levene's test of equality of error variances[a,b]					
		Levene Statistic	df1	df2	Sig.
DER	Based on Mean	6.810	3	646	.000
	Based on Median	5.291	3	646	.001
	Based on Median and with adjusted df	5.291	3	308.847	.001
	Based on trimmed mean	6.047	3	646	.000
Tests the null hypothesis that the error variance of the dependent variable is equal across groups.					
a. Dependent variable: DER					
b. Design: Intercept + CEO_Gender + CEO_Tenure + CEO_Gender * CEO_Tenure					

Source: Processed data (2023)

Table 3 indicates that the assessment of data homogeneity through Levene's Test revealed unequal variance among data groups. Given that the tests for normality and homogeneity of the data suggest abnormalities and non-uniformity, hypothesis testing proceeds by assessing independent average differences using a non-parametric approach, specifically through Mann-Whitney testing.

Table 4 below reveals that the significance value obtained from the Mann-Whitney test is 0.005, falling below the significance threshold of 0.05. As a result, H2 in this study is accepted. This indicates a statistically significant difference in the average Debt-to-Equity Ratio (DER), representing the debt policy of companies based on the gender of the CEO. The negative z value suggests that, on average, companies led by female CEOs have a smaller DER compared to those led by male CEOs.

Table 4. Results of testing DER differences based on CEO gender using Mann Whitney

Test Statistics[a]	
	DER
Mann-Whitney U	20504.500
Wilcoxon W	24599.500
Z	-2.840
Asymp. Sig. (2-tailed)	.005
a. Grouping Variable: CEO_Gender	

Source: Processed data (2023)

Table 5 below presents a Mann-Whitney significance value of 0.670, which exceeds the threshold of 0.05. Therefore, H1 in this study is rejected. This implies that there is no statistically significant difference in the average Debt-to-Equity Ratio (DER) between companies led by CEOs with tenure less than 18 years and those with tenure above 18 years (using the median cutoff value of the DER variable). The negative Z value indicates that, on average, companies with CEOs having tenure below 18 years exhibit a relatively smaller DER compared to those with CEOs having tenure above 18 years.

Table 5. DER difference testing results based on CEO tenure using Mann Whitney

Test Statistics[a]	
	DER
Mann-Whitney U	51667.000
Wilcoxon W	99562.000
Z	-.426
Asymp. Sig. (2-tailed)	.670
a. Grouping Variable: CEO_Tenure	

Source: Processed data (2023)

Discussion

The findings reveal significant differences in debt policies between companies led by female CEOs and those led by male CEOs. Companies with female CEOs tend to utilize relatively less debt compared to their counterparts with male CEOs. This outcome aligns with the conclusions drawn in earlier studies, such as those conducted by Awen & Yahaya (2023), Ramadana & Mariana (2023), and De Silva & Banda (2022). Female CEOs are noted for their role in fostering efficient decision-making by curbing excessive and risky financial choices. In contrast, male CEOs are perceived as more assertive and confident, leading them to be more inclined to take financial risks by employing higher levels of debt to enhance the company's financial performance. Female CEOs, being relatively more conservative, are inclined to avoid risks, preferring to save and hold cash as internal funds. Additionally, Jackson et al. (2009) cited in Varadina & Diatmika (2018) observed that female CEOs exhibit a more conservative approach in performing duties related to accounting practices and finance.

As for the CEO's tenure, the study findings indicate no significant difference in debt policy between companies with CEO tenure below or above 18 years. These results differ from previous studies, such as Matemilola et al. (2018) and Ting et al. (2015), which identified differences in companies' debt policies based on CEO tenure. Shazlin et al. (2020) found a significantly negative relationship between CEO tenure and optimal leverage, suggesting that longer CEO tenure leads to reduced financial leverage. The study also noted that longer CEO tenure contributes to increased CEO experience and knowledge in managing the firm's affairs, resulting in a significant inverse relationship with leverage. The mixed results from prior studies indicate that the relationship between CEO tenure and corporate debt levels remains a puzzle for future research. Contrary to expectations, this study did not find evidence that CEOs with longer tenures make greater use of debt. This suggests that tenure alone does not impact the company's debt utilization. Other researchers have argued that CEO age is a more influential factor in determining the level of corporate debt use. Age better captures the CEO's experience in managing the company and formulating strategic policies, making it a more relevant demographic characteristic compared to tenure.

CONCLUSION

This study seeks to examine variations in corporate debt policies based on CEO characteristics, specifically focusing on CEO gender and tenure. The findings indicate significant differences in debt policies associated with CEO gender, while no noteworthy distinctions were observed based on CEO tenure. The implications of this study hold value for investors, providing insights that can inform investment decisions in company stocks. Investors can consider the potential impact of corporate debt policies linked to CEO characteristics, particularly gender. Furthermore, the results serve as a pertinent consideration for companies aiming to enhance gender diversity within their board of directors. The study underscores the relatively low representation of female CEOs in companies listed on the Indonesia Stock Exchange. The findings suggest that women exhibit a more cautious approach in managing the use of debt in the company's capital structure, contributing to the reduction of financial risk.

In future research, the exploration of additional CEO characteristics, such as age, education level, board size, director independence, CEO duality, and CEO expertise, can provide a more comprehensive understanding of their influence on corporate debt policies. Incorporating control variables like industry type, company size, and ownership is also essential for a nuanced analysis.

ACKNOWLEDGEMENT

This research received financial support from Universitas Katolik Musi Charitas through its internal research funding scheme. Special acknowledgements are extended to Professor Siti Herlinda for her invaluable assistance in offering guidance and a concise review of the initial draft of this research.

REFERENCES

1. Abbas, A., & Frihatni, A. A. (2023). Gender diversity and firm performances suffering from financial distress: evidence from Indonesia. *Journal of Capital Markets Studies*, *7*(1), 91–107. https://doi.org/10.1108/jcms-12-2022-0045
2. Abor, J. (2007). Corporate Governance and Financing Decisions of Ghanaian Listed Firms. *The International Journal of Business in Society*, *7*(1), 83–92.
3. Almeida, T. A., Morais, C. R. F. de, & Coelho, A. C. (2020). Gender diversity, governance and dividend policy in Brazil. *Revista de Gestao*, *27*(2), 189–205. https://doi.org/10.1108/REGE-03-2019-0041
4. Asiamah, S., Appiah, K. O., & Agyemang Badu, E. (2023). Do board characteristics moderate capital adequacy regulation and bank risk-taking nexus in Sub-Saharan Africa? *Asian Journal of Economics and Banking*. https://doi.org/10.1108/ajeb-08-2022-0108
5. Awen, B. I., & Yahaya, O. A. (2023). Can the CEO reverse the increasing leverage of listed firms in Nigeria? *International Journal of Research in Business and Social Science*, *12*(1), 423–433.

6. Ben Mohamed, E., Souissi, M. N., Baccar, A., & Bouri, A. (2014). CEO's personal characteristics, ownership and investment cash flow sensitivity: Evidence from NYSE panel data firms. *Journal of Economics, Finance and Administrative Science*, *19*(37), 98–103. https://doi.org/10.1016/j.jefas.2014.10.002
7. Birindelli, G., Chiappini, H., & Savioli, M. (2020). When do women on board of directors reduce bank risk? *Corporate Governance (Bingley)*, *20*(7), 1307–1327. https://doi.org/10.1108/CG-03-2020-0089
8. Cao, X., Wang, Z., Li, G., & Zheng, Y. (2022). The impact of chief executive officers' (CEOs') overseas experience on the corporate innovation performance of enterprises in China. *Journal of Innovation and Knowledge*, *7*(4), 100268. https://doi.org/10.1016/j.jik.2022.100268
9. Chu, H.-L., Liu, N.-Y., & Chiu, S.-C. (2023). CEO power and CSR: the moderating role of CEO characteristics. *China Accounting and Finance Review*, *25*(1), 101–121. https://doi.org/10.1108/cafr-03-2022-0027
10. De Silva, L. G. R. V., & Banda, Y. K. W. (2022). Impact of CEO Characteristics on Capital Structure: Evidence from a Frontier Market. *Asian Journal of Business and Accounting*, *15*(1), 71–101. https://doi.org/10.22452/ajba.vol15no1.3
11. Dobija, D., Hryckiewicz, A., Zaman, M., & Puławska, K. (2022). Critical mass and voice: Board gender diversity and financial reporting quality. *European Management Journal*, *40*(1), 29–44. https://doi.org/10.1016/j.emj.2021.02.005
12. Finkelstein, S., & Hambrick, D. C. (1990). Top-Management-Team Tenure and Organizational Outcomes: The Moderating Role of Managerial Discretion. *Administrative Science Quarterly*, *35*(3), 484–503.
13. García-Meca, E., López-Iturriaga, F. J., & Santana-Martín, D. J. (2022). Board gender diversity and dividend payout: The critical mass and the family ties effect. *International Review of Financial Analysis*, *79*. https://doi.org/10.1016/j.irfa.2021.101973
14. Ginesti, G., Spanò, R., Ferri, L., & Caldarelli, A. (2021). The chief financial officer (CFO) profile and R&D investment intensity: evidence from listed European companies. *Management Decision*, *59*(13), 99–114. https://doi.org/10.1108/MD-05-2020-0650
15. Görts, B. W. M. (2016). The Effect of CEO Characteristics on Corporate Financial Policy. *Thesis MSc Finance*, *Tilburg University*, 1–47.
16. Hambrick, D. C., & Mason, P. A. (1984). Upper Echelons: The Organization as a Reflection on Its Top Managers. *The Academy of Management Review*, *9*(2), 193–206.
17. Hayong, P., & Pandin, M. (2023). Pengaruh Karakteristik Ceo Terhadap Keputusan Keuangan Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia. *JRIME: Jurnal Riset Manajemen Dan Ekonomi*, *1*(2), 105–124.
18. Hidayat, T., & Rahman, A. (2022). Gender Chief Executive Officer Dan Cash Holding. *Jurnal Akuntansi Kontemporer*, *14*(2), 66–81. https://doi.org/10.33508/jako.v14i2.3101
19. Hrazdil, K., Simunic, D. A., Spector, S., & Suwanyangyuan, N. (2023). Top executive gender diversity and financial reporting quality. *Journal of Contemporary Accounting and Economics*, *19*(2). https://doi.org/10.1016/j.jcae.2023.100363
20. Kallias, A., Kallias, K., Tsalkamas, I., & Zhang, S. (2023). One size does not fit all: The conditional role of CEO education on IPO performance. *Journal of Business Research*, *157*(December 2022), 113560. https://doi.org/10.1016/j.jbusres.2022.113560
21. Matemilola, B. T., Bany-Ariffin, A. N., Azman-Saini, W. N. W., & Nassir, A. M. (2018). Does top managers' experience affect firms' capital structure? *Research in International Business and Finance*, *45*(October 2016), 488–498. https://doi.org/10.1016/j.ribaf.2017.07.184

22. Naseem, M. A., Lin, J., Rehman, R. ur, Ahmad, M. I., & Ali, R. (2020). Does capital structure mediate the link between CEO characteristics and firm performance? *Management Decision*, *58*(1), 164–181. https://doi.org/10.1108/MD-05-2018-0594
23. Nerantzidis, M., Tzeremes, P., Koutoupis, A., & Pourgias, A. (2022). Exploring the black box: Board gender diversity and corporate social performance. *Finance Research Letters*, *48*. https://doi.org/10.1016/j.frl.2022.102987
24. Nilmawati, N., Untoro, W., Hadinugroho, B., & Atmaji, A. (2021). The Relationship Between CEO Characteristics and Leverage: The Role of Independent Commissioners. *Journal of Asian Finance, Economics and Business*, *8*(4), 787–796. https://doi.org/10.13106/jafeb.2021.vol8.no4.0787
25. Pareek, R., Sahu, T. N., & Gupta, A. (2023). Gender diversity and corporate sustainability performance: empirical evidence from India. *Vilakshan - XIMB Journal of Management*, *20*(1), 140–153. https://doi.org/10.1108/xjm-10-2020-0183
26. Ramadana, S. W., & Mariana, M. (2023). Chief Executive Officer, Financial Leverage dan Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia. *HEI EMA : Jurnal Riset Hukum, Ekonomi Islam, Ekonomi, Manajemen Dan Akuntansi*, *2*(1), 33–43. https://doi.org/10.61393/heiema.v2i1.94
27. Shazlin, S., Nazrul Hisyam, A., Mei Shan, C., Theng Lau, W., Hisyam, N., Shan, M., & Lau, T. (2020). Finance and Business (IJAFB) eISSN: 0128-1844 Factors on Optimal Leverage in Malaysia. *International Journal of Accounting*, *5*(26), 91–106.
28. Srinidhi, B., Sun, Y., Zhang, H., & Chen, S. (2020). How do female directors improve board governance? A mechanism based on norm changes. *Journal of Contemporary Accounting and Economics*, *16*(1). https://doi.org/10.1016/j.jcae.2019.100181
29. Taylor, S. E., Peplau, L. A., & Sears, D. O. (2009). *Psikologi Sosial* (12th ed.). Kencana Prenada Media Group.
30. Tejedo-Romero, F., Rodrigues, L. L., & Craig, R. (2017). Women directors and disclosure of intellectual capital information. *European Research on Management and Business Economics*, *23*(3), 123–131. https://doi.org/10.1016/j.iedeen.2017.06.003
31. Ting, I. W. K., Azizan, N. A. B., & Kweh, Q. L. (2015). Upper Echelon Theory Revisited: The Relationship between CEO Personal Characteristics and Financial Leverage Decision. *Procedia - Social and Behavioral Sciences*, *195*, 686–694. https://doi.org/10.1016/j.sbspro.2015.06.276
32. Ullah, I., Majeed, M. A., & Fang, H. X. (2021). Female CEOs and corporate investment efficiency: Evidence from China. *Borsa Istanbul Review*, *21*(2), 161–174. https://doi.org/10.1016/j.bir.2020.09.010
33. Varadina, A. P. D., & Diatmika, N. G. A. (2018). Hubungan Ceo Gender dan Leverage Dengan Konservatisme Akuntansi Pada Perusahaan Manufaktur Yang Terdaftar Di Bursa Efek Indonesia Periode 2015-2017. *Jurnal Ilmiah Akuntansi Dan Bisnis*, *3*(1), 36–45.
34. Wang, X., Deng, S., & Alon, I. (2021). Women executives and financing pecking order of GEM-listed companies: Moderating roles of social capital and regional institutional environment. *Journal of Business Research*, *136*, 466–478. https://doi.org/10.1016/j.jbusres.2021.07.055