Print ISSN: 2288-4637 / Online ISSN 2288-4645
doi:10.13106/jafeb.2021.vol8.no4.0787

The Relationship Between CEO Characteristics and Leverage: The Role of Independent Commissioners

Nilmawati NILMAWATI[1], Wisnu UNTORO[2], Bambang HADINUGROHO[3], Atmaji ATMAJI[4]

Received: December 20, 2020 Revised: March 07, 2021 Accepted: March 15, 2021

Abstract

This study investigates the effect of chief executive officers (CEO) demographic characteristics such as age, functional experience, education, and gender, on corporate leverage decisions. This study investigates the independent commissioner's role in moderating the relationship between CEO demographic characteristics and leverage decisions. The data used is panel data with a sample of 283 non-financial companies listed on the Indonesia Stock Exchange (BEI) from 2010–2017. Moderated regression analysis is used as an analytical technique, with the selected model fixed effects model. The results showed that male and young CEOs were more risk-averse, so they tended to use debt more. However, this study found no evidence of the effect of CEO experience and education on leverage. This study finds evidence that independent commissioners reduce the influence of CEO age and gender on leverage decisions. It shows the role of independent commissioners in controlling risk-taking from male and young CEOs related to leverage decisions. These results become input for companies to consider demographic characteristics in choosing a CEO. Also, companies need a board (in this study seen from independent commissioners) that is strong enough to control the CEO regarding risky decision making, such as leverage decisions.

Keywords: CEO, Demographic Characteristics, Leverage, Board Commissioners

JEL Classification Code: G30, G32, G41

1. Introduction

Some authors mention benefits of using debt for the company. The use of debt has an important role in corporate valuation (Welch, 2004). Debt is one way for companies to increase performance (Le & Phan, 2017). Debt can increase competitiveness in the business environment and determine the sustainability of a company's growth (Cole & Sokolyk, 2018). However, debt also has risks, especially the risk of default on instalments and interest expenses. Increasing the use of debt can lead a company to financial distress (Detthamrong, Chancharata, & Vithessonthic, 2017). This condition causes the debt (leverage) decision to be a risky decision for a company, so that it takes company caution in deciding the use of debt.

Researchers have made efforts to study the factors that influence leverage decisions. Most of the empirical research focuses on the characteristics of markets, industries, and companies that are based, for example, on theories such as Trade-Off, Pecking Order, and Free Cash Flow. However, companies similar in market, industry, and firm often choose leverage very differently. It leads researchers to study another factor that can influence leverage, namely, top managers' characteristics (Cronqvist, Makhija, & Yonker, 2012). Farag and Mallin (2016) state that the stock market reflects an assessment of company management, including the demographic characteristics of the Chief Executive Officer (CEO). Meanwhile, Hambrick (2007) states that executives'

[1]First Author and Corresponding Author. [1] Doctorate Program of Economics Science, Faculty of Economics and Business, Universitas Sebelas Maret, Indonesia [2] Assistant Professor, Department of Management, Faculty of Economics and Business, Universitas Pembangunan Nasional "Veteran" Yogyakarta, Indonesia [Postal Address: Jl. SWK 104, Ringroad Utara Condong Catur, Yogyakarta, 55283, Indonesia] Email: nilmawati@upnyk.ac.id
[2]Professor, Department of Management, Faculty of Economics and Business, Universitas Sebelas Maret, Indonesia.
Email: wisnu_untoro@staff.uns.ac.id
[3]Assistant Professor, Department of Management, Faculty of Economics and Business, Universitas Sebelas Maret, Indonesia.
Email: bambang_h59@staff.uns.ac.id
[4]Assistant Professor, Department of Management, Faculty of Economics and Business, Universitas Sebelas Maret, Indonesia.
Email: atmaji@staff.uns.ac.id

demographic profile is closely related to corporate strategy and performance. The personal characteristics of the top executives of the company as parties who act as decision-makers are important to be investigated regarding the strategic decisions they make (Malmendier, Tate, & Yan, 2011).

Hambrick and Mason (1984) said that top managers' demographic characteristics could explain top executives' cognition and values. It is due to the difficulty of obtaining conventional psychometric data from top executives, especially in large companies (Hambrick, 2007). Demographic characteristics such as age, education, functional experience, and gender are most often used in explaining strategies or decisions that companies make. These characteristics can shape managers' preferences for risks that will influence decision-making (Zhao, Niu, & Chen, 2020).

Previous studies examining the effect of managers' demographic characteristics on leverage still show mixed results. Research conducted by Bertrand and Schoar (2003), Serfling (2014), found that young CEO uses more debt in companies. Malmendier, Tate and Yan (2011) found that old CEO decided to use up more debt. Meanwhile, Frank and Goyal (2007) research did not find a significant influence between CEO age and leverage decisions. Custodio and Metzger (2014) show that CEO with financial experience positively affect leverage. However, Sitthipongpanich and Polsiri (2015) did not find a significant influence financial experience on leverage. Frank and Goyal (2007), Sitthipongpanich and Polsiri (2015) found that CEO with graduate education (MBA) chose a higher level of financial leverage. Meanwhile, Bertrand and Schoar (2003) and Custódio and Metzger (2014) found that a CEO who has an MBA have no significant effect on the company's capital structure. Research conducted by Faccio, Marchica and Mura (2016) found that female CEO have a negative effect on leverage. However, Frank and Goyal (2007) found that gender does not affect leverage. From these studies' results, it is still necessary to re-examine the relationship between these demographic characteristics on leverage. This relationship has not become a research concern in the Indonesian context. Research in Indonesia related to debt or leverage is more explained by company-specific characteristics such as profitability, firm growth, company size, and liquidity (Haron, 2016).

If we look at the companies listed on the Indonesia Stock Exchange's (IDX) financial statements, there is an increase in total debt by an average of 19.6% in 2008–2017. Meanwhile, Bank Indonesia's statistical reports (2018) also show an increase in debt channelled by commercial banks and rural banks to the business world by an average of 12.59% from 2013–2017. The issuance of new corporate bonds on the stock exchange experienced an average increase of 34.39% from 2014–2017 (IDX). It shows that companies in Indonesia also rely on debt as a source of funding. This condition can be a setting to determine whether the manager's characteristics affect the use of company debt.

In examining the influence of top managers' demographic characteristics on company decisions and performance, it is necessary to consider the conditions that make top managers have managerial discretion in instilling their company's preferences (Hambrick, 2007). Greater discretion will make the influence of top managers on company decisions and performance stronger (Finkelstein & Hambrick, 1990). This condition has not been considered in previous research.

One of the conditions affecting the relationship between CEO demographic characteristics on company decisions is board. Companies with weak boards of directors make the manager's influence in the company stronger. Weak boards cause weak supervision so that managers can act according to their perceptions (Hambrick, 2007). Conversely, a strong board will reduce the CEO to instil their preferences and behavioural tendencies towards the decisions taken. A strong board is a board with a high percentage of independent directors (Atmaja, 2010). An independent board's existence can increase the effectiveness of managers' decision-making and supervision (Mishra & Nielsen, 2000). More independent boards are more likely to reduce risky projects' management activity (Hatane, Supangat, Tarigan, & Jie, 2019). The advisory, supervisory, and disciplinary functions of the independent board are expected to reduce the likelihood of managers' overuse of debt. Previous research conducted by Dimitropoulos (2014), Tarus and Ayabei (2016), Wen, Rwegasira, and Bilderbeek (2002) provide evidence that independent directors have a negative effect on debt decisions.

Indonesia adopts a two-tier board system. The monitoring function is under the commissioners' authority (board of commissioner/BOC), while the company's management function is under the board of directors (BOD). The BOC who has no relationship with the company (management and other commissioners) are called independent commissioners. Independent commissioners' existence is expected to reduce managers' preferences and tendencies in corporate debt decisions through their supervisory function. A study in Indonesia by Hatane, Supangat, Tarigan, and Jie (2019) shows that independent commissioners have a negative effect on firm risk. It shows that independent commissioners have a significant role in controlling company risk. Like independent directors, it is expected that independent commissioners will have a negative effect on leverage.

This study tries to find evidence of the influence CEO characteristics on leverage in Indonesia, where this research has not been explored. This study attempts to fill the research gap by including independent commissioners as a moderating variable in examining the effect of CEO demographic characteristics on leverage. CEO characteristics have a role in influencing their willingness to take leverage decisions.

This decision has important benefits for the company, but it is necessary to control the CEO's risk-taking regarding debt. It is because this decision has risks that can lead the company to financial difficulties. Other than that, Detthamrong, Chancharata, and Vithessonthic (2017) said highly leveraged companies allegedly caused the 1997 Asian financial crisis and the United States crisis in 2008; this condition raised questions about top executives' aggressive behaviours. The independent commissioner can function as controlling the CEO concerning the risk of leverage decisions.

2. Literature Review

2.1. Theoretical Framework

In this study, the influence of CEOs' demographic characteristics on leverage decisions and the role of independent commissioners in moderating that relationship is explained by two theories, namely Upper Echelon Theory and Agency Theory. Through Upper Echelon Theory, Hambrick and Mason (1984) explain the important role of top managers in decision-making and company performance. This theory explains that organizational results are described by the characteristics of the leader. Decision-makers usually carry their cognitive biases and values, which will influence vision, perception, and interpretation. This cognitive basis influences decision-makers to anticipate future events, think of alternatives, and estimate consequences associated with these alternatives. Demographic characteristics serve as proxies for managers' beliefs, values, and cognition (Hambrick & Mason, 1984). Several characteristics of managers, such as age, level of education, functional experience, and gender, are characteristics that can be used in explaining leverage.

Demographic characteristics will shape managers' preferences for risks that will affect decision-making (Zhao, Niu, & Chen, 2020). CEO demographic characteristics influence corporate risk-taking (Farag & Mallin, 2016). Managers' willingness to take risky decisions such as leverage decisions is necessary, considering that leverage decisions have important implications. However, if the risk-taking is excessive, it will lead the company to a high leverage condition, which will endanger the company. Hambrick (2007) states that when a company has a weak board of directors, it results in weak monitoring. In this condition, the demographic characteristics of managers will be more reflected in the company's strategy.

The board of directors is a component of corporate governance. Cronqvist, Makhija, and Yonker (2012) state that CEOs can instil their specific preferences in a company with weak corporate governance. Chatterjee (2020) states that corporate governance is related to managing a business with accountability, fairness, transparency, and responsibility. Good corporate governance aims to protect the interests of all stakeholders. Establishing effective governance policies and creating shareholder value corporate governance is designed to minimize agency conflict.

Based on Agency Theory, agency conflicts arise because of the separation between ownership and management (Panda & Leepsa, 2017). Through this theory, various governance mechanisms are implemented to control managers (agents). Wen, Rwegasira, and Bilderbeek (2002) stated that when the board of directors is controlled by an independent director or an outside director, the top managers will face stricter supervisors. This independent board's presence makes managers' supervision more active to ensure that their actions do not harm the company. So it is hoped that the presence of an independent director can reduce the CEO's risk taking in making decisions on using debt. Given the highly leveraged condition it will endanger the company and harm the interests of shareholders.

2.2. Hypotheses

Hambrick and Mason (1984) cite learning theory, suggesting that more senior executives are more likely to have difficulty coming up with new ideas and behaviours. Child (1974) said that older top managers followed a lower growth strategy, and MacCrimmon and Wehrung (1986) found they were more likely to be risk-averse. CEOs who are older tend to avoid risk and are more conservative than CEOs who are younger (Orens & Reheul, 2013).

Younger managers were associated with developing new ideas and a willingness to accept risk (Hambrick & Mason, 1984). Therefore it is more likely for young managers to undertake riskier strategies, such as increasing leverage. Young CEOs are more focused on building a reputation by achieving short-term goals. They tend to take more significant risks than the old CEO (Beber & Fabbri, 2012). A study investigating the effect of a manager's age on leverage decisions was conducted by Serfling (2014). His research covered 4,493 CEOs who were present at ExecuComp databased from 1992 to 2010. It found that younger managers incur higher debt levels. These results indicate that age can influence risk preference which in turn will affect CEO risk-taking behaviour. Similarly, Bertrand and Schoar (2003) use a sample of 500 managers with observations from 1969–1999; they found that more senior CEOs prefer to lower leverage over younger ones. These results suggest that the older generation behaves more conservatively. From the explanation above, it can be seen that young managers are more prone to making risky decisions. Lower age CEOs will favour choosing a risky strategy (Liem & Hien, 2020). Hence, the hypothesis proposed is:

H1: *Lower CEO age positively affects leverage decisions.*

The discussion of the role of executives' career in decision making focuses on whether executives' bias when making decisions reflects the business's perspective in which they are trained. Dearborn and Simon's study is the beginning of this discussion (Barker & Muller, 2002). In that study, Dearborn and Simon asked managers to read cases that had an ambiguous structure. Managers were asked to identify the main problems faced in the case. As a result, production managers tend to put forward production problems; sales managers tend to raise sales issues, and so on. Thus, experiences related to goals, rewards, and methods in specific functional areas make managers understand and analyze information based on their experiences while strengthening those functional experiences.

The functional experience is an asset to develop skills and competencies according to their discipline and associated unique analytical framework (Geletkanycz & Black, 2001). One of the managers' abilities to make decisions can be formed from their professional experience (Herrmann & Datta, 2006). Risky decisions are more likely to be made by CEOs with professional experience. This experience makes them more confident, innovative, and receptive to new ideas (Farag & Mallin, 2016). CEOs with professional backgrounds would be more skilled in making business decisions and more likely to take risks (Lin, Lin, Song, & Li, 2011).

The CEO's financial expertise makes them sophisticated in finance, and they can still get external funds even in tight credit conditions (Custodio & Metzger, 2014). Managers with dominant functional experience in finance usually perceive a company as a collection of assets. The company is seen as a portfolio of several businesses. It makes companies led by managers with functional finance experience more likely to emphasize growth (Jensen & Jazac, 2004). Companies that are growing, in turn, will need additional funds, one of which comes from debt. The research results by Custodio and Metzger (2014), using 17,716 observations from 1993 to 2007, found that CEOs who are experienced in finance increase the company's leverage. CEOs who have financial experience are likely to better understand the financial theory; this can increase their sophistication.

From this description, there is support for the influence of manager's functional experience on leverage decisions, so the hypothesis is:

H2: *CEO financial experience positively affects leverage decisions.*

To some degree, education is representative person's knowledge and skill base (Hambrick & Mason, 1984). CEOs' higher education levels make them more willing to take risks. Executives who have higher education will have more complex cognitive abilities (Wally & Baum, 1994). Cognitive complexity has generally been linked to the ability to absorb more new ideas. Innovative companies will tend to be led by CEOs who have higher education (Barker & Mueller, 2002). Apart from psychological and social characteristics, education will also be reflected in the CEO's decisions. CEOs who are highly educated tend to be more willing to take risks. They have an open mind about new innovative ideas and can capture more information from the external environment (Orens & Reheul, 2013). Wang, Holmes, Oh, and Zhu (2016) said that formal education could significantly increase the CEO's ability to carry out new, more complex strategies.

Beber and Fabbri (2012) found that directors who are overly confident with an MBA may be willing to take more significant risks. Research conducted by Sitthipongpanich and Polisri (2015) on the Stock Exchange of Thailand (SET) using 1,356 observations in the 2001–2005 period shows that CEOs with a high education level have a positive effect on leverage. It shows that highly educated CEOs have a high level of confidence, so they are more likely to do risk-taking. Similarly, Frank & Goyal (2007) research on 2,702 executives in Execucomp databases for the period 1993–2004 found that CEOs with postgraduate education (MBA) are known to choose a higher level of leverage financially.

From this description, it is obtained support for the existence of a positive influence on executive education on corporate leverage decisions, so that the hypothesis proposed is:

H3: *CEO education positively affects leverage decisions.*

Gender is the main proxy for the level of self-confidence and risk-averse (Faccio, Marchica, & Mura, 2016). Most of the literature notes that female directors are more risk-averse than male directors. Men tend to be more confident and tolerant of risk, while women are the opposite (Huang & Kisgen, 2013). Barber and Odean (2001) stated that men are more confident and more risk-taking than women. Their research results support this. Beber and Fabbri (2012) found that male managers are more confident than female managers. Therefore male managers are more willing to speculate. Male and female CEOs have differences in management styles and risk aversion, investment, and financial decisions (Mohan & Chen, 2004).

Research by Huang and Kisgen (2013), using 26,668 observations on the ExecuComp database from 1993 to 2005, found that female CEOs tend to rely less on long-term debt. They also found that female CEOs tended to use stock options earlier than male CEOs. It is indicating that male CEOs are relatively more confident than female CEOs. So, male CEOs more courageous in making risky decisions than female CEOs.

From this description, it can be seen that leverage decisions are more likely to be made by male CEOs. Therefore, the hypothesis proposed is:

H4: *CEO gender (male) positively affects leverage decisions.*

Black and Kim (2012) stated that the independent board is an important component in corporate governance. Their presence can improve the monitoring of top management to leverage decisions. A board of directors that is more independent is a stronger monitor for management (Morellec, Nikolov, & Schurhoff, 2012). Research by Wen, Rwegasira and Bilderbeek (2002) show that the number of outside directors negatively influences leverage decisions. It suggests that managers who are in companies with strong governance will be encouraged to choose a lower level of debt to avoid the additional risk associated with higher leverage. Research conducted by Dasilas and Papasyriopoulos (2015) reveals that the board of directors› independence is a significant factor in corporate governance in determining corporate debt level, especially during crisis times. In this condition, shareholders demand more transparency and less risky transactions, which will be detrimental to their share ownership and company's survival.

The research by Dimitropoulos (2014) found a negative relationship between the independent board on debt decisions. These results indicate that the role of supervision and control by the independent board can avoid agency conflicts. Tarus and Ayabei (2016) mention the negative relationship between independent boards and leverage is likely due to concerns about their reputation as effective and independent decision-makers. Thus, to avoid bankruptcy costs, a lower level of leverage was chosen.

Indonesia adopts a two-tier board system. In this system, management and supervisory functions are separated. The function of managing a company is carried out by the board of directors (executive) while supervising and providing advice from the board of commissioners (BOC). An Independent commissioner is a member of the board of commissioners. They come from outside the company (OJK, 2015). Independent commissioners have no affiliation with other directors, commissioners, shareholders and have no business or other relationships that may affect their independence (OJK, 2014). The independent commissioner is an indicator of good governance practices (Gati, Nasih, Agustia, & Harymawan, 2020). The independent commissioner acts as a mediator in the event of a conflict between managers; besides that, they oversee policy management in the company (Mardjono & Chen, 2020).

From the description that has been given, it can be concluded that independent commissioners who function as parties who monitor managers or executives can reduce or control managers' possibility to make excess leverage, which is detrimental to the company. Therefore the hypothesis proposed is:

H5a: *Independent commissioners weaken the positive influence of lower CEO age on leverage.*

H5b: *Independent commissioners weaken the positive influence of CEO functional experience on leverage.*

H5c: *Independent commissioners weaken the positive influence of CEO education on leverage.*

H5d: *Independent commissioners weaken the positive influence of gender CEO on leverage.*

3. Material and Methods

This research is a quantitative study using secondary data in the form of annual reports and financial reports from non-financial companies, which are listed on the Indonesia Stock Exchange in 2010–2017. The sample selection was carried out using purposive sampling method. The company provides complete data related to the variables needed in the study. Data obtained from the Indonesia Stock Exchange (www.idx.co.id). The data used is panel data. There were 324 companies registered during the study period, but 41 companies did not provide complete data, so that 283 sample companies were obtained. With the number of years of observation for eight years, the number of observations is 2.264 observations.

The dependent variable in this study is leverage. To calculate leverage, following Bertrand and Schoar (2003), dividing long-term debt + current liabilities to long-term debt + current liabilities + book value of common equity.

The independent variables are the CEO demographic characteristics consisting of age, functional experience, education, and gender. These four variables were selected as demographic variables, which act as proxies for the CEO characteristics because they are used most often in demographic characteristics research. Age is the CEO age in years. Functional experience follows the criteria used by Custodio and Metzger (2014), namely a CEO that has experience in banking or investment companies, in a financial-related role (accountant, chief financial officer, treasurer, or vice president of finance), or a large audit firm. CEO will be given a score of 1 if they have functional experience and 0 if they do not. To measure CEO education, CEO will be given a score of 1 if they have a postgraduate level of education and 0 if they do not (Altuwaijri & Kalyanaraman, 2020). Finally, the CEO will be given a one if male and 0 if female (Custodio &Metzger, 2014).

The moderating variable in this study is the independent commissioner. Independent commissioner is measured by dividing the independent commissioner by the number of company commissioners (Appiah & Chizema, 2016).

The control variables in this study are profitability, tangibility, and size. Companies with high profits are more likely to fulfil their liabilities related to debt and interest that must be paid. Companies that have high profits are less likely to go bankrupt (Serrasqueiro & Caetano, 2015). Profitability is calculated by dividing operating profit by total assets. Companies with many assets can be used as collateral; this will make it easier for companies to access funds from external sources (Kumar, Colombage, & Rao, 2017). Tangibility is calculated by dividing fixed assets by total assets (Ghardallou, Borgi, & Alkhalifah, 2020). Big companies are more able to increase the level of debt because they have a smaller chance of bankruptcy (Serrasqueiro & Caetano, 2015). Information asymmetry between managers or owners and creditors can be reduced when the company is large. This condition allows the company to obtain debt on favourable terms (Myers, 1984). Variable size is calculated by performing the natural logarithm of the company's total assets (Nguyen, Dang, Phan, & Nguyen, 2020).

The analysis technique used to examine the effect of CEO characteristics (age, functional experience, and gender) on leverage is moderated regression analysis. The following regression equation will be used:

$$\text{Leverage} = \alpha_0 + \alpha_1\text{Age} + \alpha_2\text{Experience} + \alpha_3\text{Education} + \alpha_4\text{Gender} + \alpha_5\text{Board} + \alpha_6\text{Profitability} + \alpha_7\text{Tangibility} + \alpha_8\text{Size} + \varepsilon \quad (1)$$

$$\text{Leverage} = \gamma_0 + \gamma_1\text{Age} + \gamma_2\text{Experience} + \gamma_3\text{Education} + \gamma_4\text{Gender} + \gamma_5\text{Board} + \gamma_6\text{Age * Board} + \gamma_7\text{Experience*Board} + \gamma_8\text{Education*Board} + \gamma_9\text{Gender * Board} + \gamma_{10}\text{Profitability} + \gamma_{11}\text{Tangibility} + \gamma_{12}\text{Size} + \varepsilon \quad (2)$$

4. Results and Discussion

Table 1 presents the summary statistics of the variables in the empirical analysis. The average leverage value is 57.8%, indicating that the average total debt compared to the total capital of non-financial companies in Indonesia is relatively high. It indicates that companies in Indonesia are brave enough to use debt in their capital composition. The average age is 53.94 years old. The average value of the experience variable is 0.221. It means that 22.1% of the CEOs in the study sample had functional experience in finance. The mean score for education level was 0.310, indicating that the CEOs had an average postgraduate level of 31.0%. The average number of gender was 0.929, indicating that the average number of male CEOs in the sample was 92.9%. The average number of independent commissioners is 0.398, which means that the average company in the sample has 39.8% independent commissioner of all commissioners.

Table 2 presents the correlation matrix for the variables used in the analysis. Table 2 shows no multicollinearity problem because there is no correlation between the independent variables, which has a significant value above 0.5.

Table 3 shows the results of regression testing, with the fixed-effect model chosen. The fixed-effect model is chosen after the Chow test, a test to determine the fixed effect or common effect model. It also conducted the Hausman test, which is a test to determine the fixed effect or random-effect model. From these two tests, finally the most appropriate model to use is the fixed-effect model.

Table 3 column 2 shows that age negatively affects leverage (lower CEO age positively affects leverage). It means that firms with younger CEO will have higher debt. The explanation that can be given is that younger managers have many new ideas, accept the risk, and avoid the status quo. Young managers are more likely to take risky strategies, such as leverage decisions (Hambrick & Mason, 1984). This risk-taking behaviour decreases with the increasing age of the manager. Older managers are less involved in risky decisions such as research and development, acquisitions, diversifying business operations, and opting for lower debt use.

Table 1: Descriptive Statistics of Research Variables

Variables	Mean	Maximum	Minimum	Std. deviation	Observation
Leverage	0.578	16.834	0.0002	0.814	2264
Age	53.94	73.000	29.00	9.628	2264
Experience	0.221	1.000	0.000	0.415	2264
Education	0.310	1.000	0.000	0.463	2264
Gender	0.929	1.000	0.000	0.256	2264
Board	0.398	0.857	0.100	0.106	2264
Profitability	0.066	2.557	–10.684	0.273	2264
Tangibility	0.310	0.963	0.00000224	0.228	2264
Size	6.341	8.471	3.7059	0.775	2264

Table 2: Correlation Matrix

Variables	Leverage	Age	Experience	Education	Gender	Board	Profitability	Tangibility	Size
Leverage	1								
Age	–0.039	1							
Experience	0.028	–0.146	1						
Education	0.011	–0.180	0.022	1					
Gender	0.038	0.118	–0.077	–0.033	1				
Board	–0.007	0.006	0.100	–0.049	–0.024	1			
Profitability	0.268	0.003	0.051	–0.016	–0.023	0.041	1		
Tangibility	–0.058	–0.019	–0.045	–0.013	0.064	–0.091	–0.018	1	
Size	0.109	0.119	0.016	–0.053	0.035	0.494	0.087	0.016	1

Table 3: Regression Results the Effect of CEO Characteristics on Leverage

Variables	Main Effect	*t*-Value	Moderating Effect	*t*-Value
C	3.317509***	9.570605	1.273064****	3.4692067
Age	–0.005013*	–1.957235	–0.014937****	–2.662243
Experience	0.016698	0.305198	0.1627753	1.408819
Education	0.025456	0.484325	0.015580	0.8903
Gender	0.016349*	1.87322	0.739290***	3.433186
Board	–0.311279****	–2.582862	–0.058***	–2.317
Age*Board			–0.020101***	–2.368593
Experience*Board			–0.202278	–1.192425
Education*Board			–0.028994	–0.180253
Gender*Board			–0.923938***	–3.016336
Profitability	0.407915***	8.203831	0.764476***	12.70756
Tangibility	–0.303828**	–2.536948	–0.208018***	–2.915467
Size	0.520407***	9.935998	0.127706***	5.158563
Adj. R^2	0.539053		0.648455	
Cross–sections included	283		283	

Significance: ***p value < 1%, **p value < 5%, *p value < 10%.

They become more conservative (prefer less debt), as found in the research of Bertrand and Schoar (2003), Serfling (2014). The results of this study support previous research, which shows that age influences corporate risk-taking and decisions. Young managers are more willing to take risks than older managers.

CEO experience does not affect leverage. It means that the CEO's experience in finance does not affect the decision to use debt. This result does not support previous research conducted by Custodio and Metzger (2014) and Graham, Harvey, and Pury (2013). The explanation that can be given is that the likelihood of the experience diminishes. The CEO may have experience in other fields that are more dominant, thereby reducing the financial experience's benefits. Besides, in this study, the data description shows that only 22.1% of the CEOs studied had functional experience in finance. It may also be that the functional experience variable does not significantly influence leverage.

CEO education does not affect leverage. Previously, it was hoped that highly educated managers would have high cognitive abilities as well. This ability makes them more quickly capture and process information and more open-minded. When they are faced with a risky decision, they can be more courageous in making it. The absence

of influence on the level of education on leverage in this study is probably related to measurement. CEO types of higher education may predict outcomes better than higher education levels (Barker & Mueller, 2002).

CEO gender (male CEO) positively affects book leverage. Most of the literature suggests that gender represents confidence levels and risk aversion (Faccio, Marchica, & Mura, 2016). Men are said to be people who are too confident (overconfidence) and tolerant of risk, while women are, on the contrary, more conservative and less risk-taking (Huang & Kisgen, 2013). Companies with male CEO will be more willing to take risks; in this case, use more debt. According to Malmendier, Tate, and Yan (2011), overconfident managers overestimate the company's future cash flows and believe that the market underestimates the company. Such managers will find external financing too expensive and prefer to use cash or debt without risk. If there is a need to raise risky external capital, they prefer debt to equity because the price of equity is more sensitive to opinions about future cash flows. This finding is in line with previous studies, which found that companies with male managers have high leverage (Graham, Harvey, & Pury, 2013; Huang & Kisgen, 2013).

Table 3 column 4 shows the interaction regression coefficient between the CEO age, gender, and the independent commissioner is significant. These results indicate that the independent commissioners can moderate the relationship between CEO age, gender, on leverage. However, there is no evidence that independent commissioners moderate the relationship between CEO experience and education level on leverage. It is also because the main regression test did not find the effect of experience and education level on leverage.

There is evidence that independent commissioners moderate the relationship between age, gender, and leverage, meaning that independent commissioners will reduce risk-taking by CEOs and young men regarding leverage decisions. This is due to the supervision and control of independent commissioners so that the CEO does not overuse debt. The decision to use too much debt can hurt the company, given the increased risk of debt. The main risk faced is the possibility of default due to increased debt and interest. This risk will also be borne by the shareholders to their detriment as well. The presence of independent commissioners is also to protect the interests of shareholders. Independent commissioners are very important to monitor the alignment between insider interests and shareholder interests (Sheikh & Wang, 2012).

5. Conclusion

This study analyzes the influence of the CEO age, functional experience, education, and gender influence on leverage decisions. It was found that young and men CEO will tend to be more tolerant of risk, so they will tend to use debt more than old and female CEO. These results indicate that the CEO demographic characteristics have an important role in company outcomes; in this context, the decision to use debt (leverage). The results reinforce the Upper Echelon Theory, which explains that the leader's characteristics describe organizational results.

This study also found that independent commissioners weaken the positive influence of CEO age and gender to leverage decisions. The decision to use debt is a decision that has important meaning for the company; however, if the use of debt is too extensive, it can endanger the company, given that the risk also increases when debt increases. Independent commissioners can reduce this influence through their supervision to not endanger the company's condition. There is a finding that independent commissioners weaken the influence of CEO age and gender on leverage, strengthening Agency Theory. It shows the importance of independent directors in the relationship between CEO demographic factors and leverage.

This study's results have important implications for the company; it is necessary to consider the demographic characteristics in choosing a CEO. The presence of young and men CEO has a significant role in making risky decisions, such as leverage decisions. Also, a strong board is needed to monitor the CEO so that risky decisions taken remain in line with the company and shareholders' interests.

This study found no evidence that CEOs' level of education and functional experience in finance affect leverage. Further research can detail the variables of education in the field of education in specific fields. Likewise, it can use other experience for the experience variable, not only experience in finance; so it can be more clearly identified which experience influences leverage decisions.

References

Altuwaijri, M. B., & Kalyanaraman, L. (2020). Ceo education-performance relationship: Evidence from Saudi Arabia *Journal of Asian Finance, Economics and Business,* 7(8), 259–268. https://doi.org/10.13106/jafeb.2020.vol7.no8.259

Appiah, O. K., & Chizema, A. (2016). The impact of board quality and nomination committee on corporate bankruptcy. *Advances in Accounting*, 35, 75–81. https://doi.org/10.1016/j.adiac.2016.02.004

Atmaja, S. L. (2010). Dividend and debt policies of family controlled firms. *International Journal of Managerial Finance*, *6*(2), 128–142. http://dx.doi.org/10.1108/17439131011032059

Bank Indonesia. (2018). Indonesian economic and financial statistics (SEKI), Monetary sector. https://www.bi.go.id/id/statistik/seki/terkini/moneter/Contents/Default.aspx.statistik

Barber, M. B., & Odean, T. (2001). Boys will be boys: gender, overconfidence, and common stock investment. The

Quarterly Journal of Economics, *116*(1), 261–292. https://doi.org/10.1162/003355301556400

Barker, V. L., & Mueller, G. C. (2002). CEO characteristics and firm R&D spending. *Management Science*, *48*(6), 782–801. https://doi.org/10.1287/mnsc.48.6.782.187

Beber, A., & Fabbri, D. (2012). Who times the foreign exchange market? Corporate speculation and CEO characteristics. *Journal of Corporate Finance*, *18*(5), 1065–1087. https://doi.org/10.1016/j.jcorpfin.2012.07.004

Bertrand, M., & Schoar, A. (2003). Managing with style: the effect of managers on firm policies. *The Quarterly Journal of Economics*, *118*(4), 1169–1208. https://doi.org/10.1086/376950

Black, B. S., & Kim, W. C. (2012). The effect of board structure on firm value: a multiple identification strategies approach using Korean data. *Journal of Finance Economic*, *104,* 203–226. https://doi.org/10.1016/j.jfineco.2011.08.001

Chatterjee, C. (2020). Board quality and earnings management: evidence from India. *Global Business Review*, *21*(5), 1–23. https://doi.org/10.1177%2F0972150919856958

Child, J. (1974). Managerial and organizational factors associated with company performance part 1. *Journal of Management Study*, *11*(3), 175–189. https://doi.org/10.1111/j.1467-6486.1974.tb00693.x

Cole, A. R., & Sokolyk, T. (2018). Debt financing, survival, and growth of start-up firms. *Journal of Corporate Finance*, *50*, 609–625. https://doi.org/10.1016/j.jcorpfin.2017.10.013

Cronqvist, H., Makhija, A. K., & Yonker, S. E. (2012). Behavioral consistency in corporate finance: CEO personal and corporate leverage. *Journal of Financial Economics*, *103*(1), 20–40. https://doi.org/10.1016/j.jfineco.2011.08.005

Custódio, C., & Metzger, D. (2014). Financial expert CEOs: CEO's work experience and firm's financial policies. *Journal of Financial Economics*, *114*(1), 125–154. https://doi.org/10.1016/j.jfineco.2014.06.002

Dasilas, A., & Papasyriopoulos, N. (2015). Corporate governance, credit ratings and the capital structure of Greek SME and large listed firms. *Small Business Economics*, *45*, 215–244. https://doi.org/10.1007/s11187-015-9648-y

Detthamrong, U., Chancharata, N., & Vithessonthic, C. (2017). Corporate governance, capital structure and firm performance: evidence from Thailand. *Research in International Business and Finance*, *42,* 689–709. https://doi.org/10.1016/j.ribaf.2017.07.011

Dimitropoulos, P. (2014), Capital structure and corporate governance of soccer clubs. *Management Research Review*, *37*(7), 658–678. http://dx.doi.org/10.1108/MRR-09-2012-0207

Faccio, M., Marchica, M. T., & Mura, R. (2016). CEO gender, corporate risk-taking, and the efficiency of capital allocation. *Journal of Corporate Finance*, *39,* 193–209. https://doi.org/10.1016/j.jcorpfin.2016.02.008

Farag, H., & Mallin, C. (2016). The influence of ceo demographic characteristics on corporate risk-taking: evidence from Chinese IPOs. *European Journal of Finance*, *24*(16), 1528–1551. https://doi.org/10.1080/1351847X.2016.1151454

Financial Services Authority Regulation Number 33 / POJK.04 / (2014). Concerning the Board of directors and board of commissioners of issuers or public companies. https://www.ojk.go.id/id/regulasi

Financial Services Authority Regulation Number 55 / POJK.04 / (2015). Concerning the establishment and guidelines for the work implementation of the audit committee. https://www.ojk.go.id/id/regulasi

Finkelstein, S., & Hambrick, C. D. (1990). Top management team tenure and organizational outcomes: The moderating role of managerial discretion*. Administrative Science Quarterly*, *35*(3), 484–503. http://www.jstor.org/stable/2393314

Frank, M. Z., & Goyal, V. K. (2007). Corporate leverage: how much do managers really matter? In: *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.97108

Gati, V., Nasih, M., Agustia, D., & Harymawan, I. (2020). Islamic index, independent commissioner and firm performance. *Cogent Business & Management*, 1–12. https://doi.org/10.1080/23311975.2020.1824440

Geletkanycz, M. A., & Black, S. S. (2001). Bound by the past? experience-based effects on commitment to the strategic status quo. *Journal of Management*, *27*(1), 3–21. https://doi.org/10.1177/014920630102700103

Ghardallou, W., Borgi, H., & Alkhalifah, H. (2020). Ceo characteristics and firm performance: a study of Saudi Arabia listed firms, *Journal of Asian Finance, Economics and Business*, *7*(11), 291–301. https://doi.org/10.13106/jafeb.2020.vol7.no11.291

Graham, J. R., Harvey, C. R., & Puri, M. (2013). Managerial attitudes and corporate actions. *Journal of Financial Economics*, *109*(1), 103–121. https://doi.org/10.1016/j.jfineco.2013.01.010

Hambrick, C. D. (2007). Upper echelons theory: an update. *Academy of Management Review*, *32*(2), 334–343. https://doi.org/10.5465/AMR.2007.24345254

Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, *9*(2), 193–206. https://doi.org/10.5465/amr.1984.4277628

Haron, R. (2016). Do Indonesian firms practice target capital structure? A dynamic approach, *Journal of Asia Business Studies, 10*(30), 318–334. https://doi.org/10.1108/JABS-07-2015-0100

Hatane, E.S., Supangat, S., Tarigan, J., & Jie, F. (2019). Does internal corporate governance mechanism control firm risk? Evidence from Indonesia's three high-risk sectors, *Corporate Governance*, *19*(6), 1362–1376. https://doi.org/10.1108/CG-02-2019-0071

Herrmann, P., & Datta, D. K. (2006). CEO Experiences: Effects on the choice of fdi entry mode. *Journal of Management Studies*, *43*(4), 755–778. https://doi.org/10.1111/j.1467-6486.2006.00610.x

Huang, J., & Kisgen, J. D. (2013). Gender and corporate finance: are male executives overconfident relative for female executives. *Journal of Financial Economics*, *108*(3), 822–839. https://doi.org/10.1016/j.jfineco.2012.12.005

Jensen, M., & Zajac, E. J. (2004). Corporate elites and corporate strategy: How demographic preferences and structural position shape the scope of the firm. *Strategic Management Journal*, *25*(6), 507–524. https://doi.org/10.1002/smj.393

Kumar, S., Colombage, S., & Rao, P. (2017). Research on capital structure determinants: a review and future directions. *International Journal of Managerial Finance*, *13*(2), 106–132. https://doi.org/10.1108/IJMF-09-2014-0135

Le, T. P. V., & Phan, T. B. N. (2017). Capital structure and firm performance: empirical evidence from a developing country. *Research in International Business and Finance*, *42*, 710–726. https://doi.org/10.1016/j.ribaf.2017.07.012

Liem, V. T., & Hien, N. N. (2020). The impact of manager's demographic characteristics on prospector strategy, use of management accounting systems and financial performance. *Journal of International Studies*, *13*(4), 54–69. doi:10.14254/2071-8330.2020/13-4/4

Lin, C., Lin, P., Song, M. F., & Li, C. (2011). Managerial incentives, CEO characteristics and corporate innovation in China's private sector. *Journal of Comparative Economics*, *39*(2), 176–190. https://doi.org/10.1016/j.jce.2009.12.001

MacCrimmon K. R., & Wehrung D. A. (1986). *Assessing risk propensity*. In: Daboni L., Montesano A., & Lines M. (Eds.). *Recent Developments in the Foundations of Utility and Risk Theory, Theory and Decision Library (An International Series in the Philosophy and Methodology of the Social and Behavioral Sciences)*. Springer, Dordrecht. https://doi.org/10.1007/978-94-009-4616-3_19

Malmendier, U., Tate, G., & Yan, J. (2011). Overconfidence and early-life experiences: The effect of managerial traits on corporate financial policies. *The Journal of Finance*, *46*(5), 1687–1733. https://doi.org/10.1111/j.1540-6261.2011.01685.x

Mardjono, E. S., & Chen, Y. S. (2020). Earning management and the effect characteristics of audit committee, independent commissioners: evidence from Indonesia. *International Journal of Business and Society*, *21*(4), 569–587.

Mishra, C.S., & Nielsen, J.F. (2000), Board independence and compensation policies in large bank holding companies. *Financial Management*, *29*(3), 51–69. https://doi.org/10.2307/3666229

Mohan, N. J., & Chen, C. R. (2004). Are IPOs priced differently based upon gender? *Journal of Behavioral Finance*, *5*(1), 57–65. https://doi.org/10.1207/s15427579jpfm0501_6

Morellec, E., Nikolov, B., & Schurhoff, N. (2012). Corporate governance and capital structure dynamics. *Journal of Finance*, *67*(3), 803–848. https://doi.org/10.1111/j.1540-6261.2012.01735.x

Myers, S. (1984). The capital structure puzzle. *The Journal of Finance*, 39, 575–592. http://dx.doi.org/10.2307/2327916

Nguyen, C. D. T., Dang, H. T. T, Phan, N. H, & Nguyen, T. T. T. (2020). factors affecting financial leverage: The case of Vietnam firms, *Journal of Asian Finance, Economics and Business*, *7*(11), 801–808. https://doi.org/10.13106/jafeb.2020.vol7.no11.801

Orens, R., & Reheul, A. M. (2013). Do CEO demographics explain cash holdings in SMEs? *European Management Journal*, *31*(6), 549–563. http://dx.doi.org/10.1016/j.emj.2013.01.003

Panda, B., & Leepsa, M. N. (2017). Agency theory: review of theory and evidence on problems and perspectives. *Indian Journal of Corporate Governance*, *10*(1), 74–95. https://doi.org/10.1177%2F0974686217701467

Serfling, M. A. (2014). CEO Age and the riskiness of corporate policies. *Journal of Corporate Finance*, *25,* 251–273. https://doi.org/10.1016/j.jcorpfin.2013.12.013

Sheikh, A. N., & Wang, Z. (2012). Effects of corporate governance on capital structure: empirical evidence from Pakistan. *Corporate Governance: The International Journal of Business in Society, 12*(5), 629–641. https://doi.org/10.1108/14720701211275569

Sitthipongpanich, T., & Polsiri, P. (2015). CEO characteristics and corporate financing in Thailand. *International Research Journal of Finance and Economics*, *102*, 56–69. http://eprints.hud.ac.uk/id/eprint/31808

Serrasqueiro, Z., & Caetano, A. (2015). Trade-off theory versus pecking order theory: Capital structure decisions in a peripheral region of Portugal. *Journal of Business Economics and Management*, *16*(2), 445–466. https://doi.org/10.3846/16111699.2012.744344

Tarus, K. D., & Ayabei, E. (2016). Board composition and capital structure: Evidence from Kenya. *Management Research Review*, *39*(9), 1056–1079. http://dx.doi.org/10.1108/MRR-01-2015-0019

Wally, S., & Baum, R. J. (1994). Personal and structural determinants of the pace of strategic decision making. *Academy of Manageinenl Journal, 37*(4), 932–956. https://doi.org/10.5465/256605

Wang, G., Holmes, R. M., Oh, I. S., & Zhu, W. (2016). Do CEOs matter to firm strategic actions and firm performance? A meta-analytic investigation based on upper echelons theory. *Personnel Psychology*, *69*(4), 775–862. https://doi.org/10.1111/peps.12140

Welch, I. (2004). Capital structure and stock returns. *Journal of Political Economy*, *112*(1), 106–132. http://www.jstor.org/stable/10.1086/379933.

Wen, Y., Rwegasira, K., & Bilderbeek, J. (2002). Corporate governance and capital structure decisions of Chinese listed firms. *Corporate Governance: An International Review*, *10*(2), 75–83. https://doi.org/10.1111/1467-8683.00271

Zhao, X., Niu, X., & Chen, J. (2020). CEO risk preference, enterprise characteristics, and goodwill value: Evidence from China. *Asia-Pacific Journal of Accounting & Economics.* Published online: 30 Jun 2020. https://doi.org/10.1080/16081625.2020.1787853