



Gender and Risky Decisions :The Role of the Human Capital Board as Moderator

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Abstract. This study investigates the potential effects of gender (female CEO) on riskier decisions. The main proxy for risk aversion and confidence levels, according to the literature, is gender. Men are said to be more risk-tolerant and overconfident than women, who tend to be more cautious and risk-averse. Findings from multiple regression analysis suggest that female CEOs generally refrain from making riskier decisions. The analysis uses a sample of all the companies listed on the Indonesia Stock Exchange for the years 2015 to 2022. However, board capital, which comprises of the people and social resources of the board, might reduce risk aversion. Board human capital is determined by the CEO's prior experience as the CEO of other companies, whereas board social capital is determined by the CEO's connected directorship and political contacts.

Keywords: CEO, gender, board, human capital, risky decision.

1 Introduction

The gender makeup of management may be able to explain variances in business risk-taking behavior if it is assumed that there are broad disparities in risk attitudes between the sexes [1]. According to Faccio, et al. [2], gender can affect how businesses make decisions. First, there are variations in incentive and pay structures. Fixed pay contracts, which are more likely to be offered by low risk corporations, are more likely to draw female executives. Women are underrepresented in businesses that use variable compensation. Additionally, businesses that provide weak incentives tend to employ managers who are less competent and more risk-averse.

Second, the variation in the likelihood of losing your job. Women are more likely to choose low-risk organizations or minimize company risk when they become CEOs if company risk is positively connected with the possibility of CEOs losing their jobs and female CEOs have a harder time finding new jobs than male CEOs. The third factor is what women should and should not be expected to do by society. Women's employment decisions may be influenced by these expectations, which may even serve as discriminators between men and women in some professions, businesses, and industries. The decisions women make about particular positions (like CEO) may also be influenced by these societal expectations.

Women's engagement in the workforce will be low if society expects them to stay at home. A female CEO will probably decide to work for a lower-risk company in order to meet childcare and family responsibilities when managing a high-risk company that necessitate longer working hours and a less flexible work schedule. When women hold CEO positions, they can also limit business risk-taking to a level acceptable with their personal restraints.

Previous studies studying how gender affects risky decisions have found a variety of results. Farag and Mallin [3] found that female executives influenced risky decisions favorably. According to research by [2, 4, 5, 6] and others, female CEOs have a negative influence on risky

decisions. In contrast, study by Frank and Goyal [7] showed no link between female executives and riskier choices. The research of Sila, Gonzalez, and Hagendorff [1] produced the same outcomes. Given that women are increasingly having the opportunity to hold important positions inside the firm, it is still crucial to investigate the role of female managers in making dangerous decisions, particularly in the context of Indonesian companies.

It's possible that context was overlooked in some inconsistent and weak results from earlier studies on strategic behavior. Managerial discretion, in the opinion of Hambrick [8], will have an impact on how much top executives decide how the company will operate. More discretion gives managers more power within the organization. Managers can make decisions because of the resources they have access to, according to Wangrow, Schepker, and Barker III [9]. Businesses with resources at their disposal can consider a greater variety of strategic decision-making options. In Chen [10] view, managers' decision-making, particularly when it comes to risky decisions, can be influenced by human capital (board human capital).

According to Chen [10], the experience of a CEO becoming the CEO of another company is what the human capital board is about. The ability to manage complicated activities, create strategic visions, and make complex strategic decisions are just a few of the talents a CEO can learn through experience serving as the CEO of another business [11].

A female CEO is anticipated to be more bold when making dangerous judgments as a result of this experience. It is hoped that the human capital board will be able to reduce the impact of gender on risky decisions in this study.

2 Hypothesis Development

Gender is the most significant predictor of risk aversion and confidence levels. Men tend to be overconfident and risk-tolerant, whereas women are more conservative and risk-averse [5]. In a similar line, Faccio et al. [2] pointed out that the intensive structure, risk aversion, lack of confidence, risk of unemployment, and societal norms of female CEOs are different from those of male CEOs.

A higher proportion of female directors on the board of directors is associated with less risk-taking by businesses, according to Elsaid and Ursel [6] analysis of 679 CEO successions at 650 companies from the Standard & Poor's Execucomp database between 1992 and 2005. Operating leverage, financing for R&D, and cash on hand have all dropped for the company. According to research by Dwyer et al. [12] using information from more than 2,000 mutual fund clients, female fund managers are less risk-averse than male fund managers. The found gender discrepancy in risk-taking, however, was significantly decreased after accounted for financial investment skill.

Business growth was slower among female executives and had less of an association with acquisition decisions, according to Huang and Kisgen's [5] study, which comprised 6,668 observations of executives between 1993 and 2005. Additionally, it was found that CEOs who were women issued less debt. This evidence indicates that while making commercial decisions, men are more overconfident than women.

On the other hand, the results of a study by Farag and Mallin [3] on the Chinese capital market from 1999 to 2009 indicated observable variances in the ways that enterprises made risky decisions. It was shown that female CEOs were less risk-averse than male CEOs. These results are in line with research by Adams and Funk [13], who employed survey techniques in Sweden in 2005, and Berger, Kick, and Schaeck [14], who conducted research in Germany from

1994 to 2010. This description leads to the following suggestion:

H1: The presence of female managers in the top management team affects risky decisions.

According to the perspective of resource dependence, human capital is described as a person's knowledge, skills, and capacities, all of which can be obtained through employment [15, 16] Because of their background, these directors are also able to acquire tactical knowledge of the industry and commercial processes [17]. Since having served as a CEO boosts their work knowledge, directors are more prepared to contribute to business strategy [18].

Tiian et al. [19] assert that CEO directors likely benefit from their experience when making judgments because it is a significant source of business knowledge. Chen's [10] research on companies listed on the Taiwan Stock Exchange between 2006 and 2010 shows that human capital can enhance the CEOs' risky decision-making characteristics. The following is the second premise of this study:

H2: Female CEOs make more hazardous decisions when human capital boards are involved.

3 Research Methods

All manufacturing businesses that were listed on the Indonesia Stock Exchange (IDX) between 2015 and 2022 comprise the population of this study. Data for the research was gathered from relevant sources such as Annual Reports, Econ Datastream, Bloomberg, Market Screener, Relationships, and LinkedIn. A total of 1700 observations were acquired for the unbalanced panel data that was used.

3.1 Operational definition and variable measurement

In this study's analysis of risky choices made using the leverage proxy, the dependent variable is the ratio of the company's long-term debt to its long-term funding at the end of the observation year. The longer it takes for loans and interest to be repaid, the more expensive it will be, increasing the company's risk. Following Booth et al. [19], total debt minus short-term debt is divided by total debt minus short-term debt plus own capital to determine leverage.

The study's independent variable is the gender of the senior management team's CEO. [5, 20]. Managers receive a score of one if they are male and a score of 0 if they are female.

The percentage of board members (directors and commissioners) who are now serving as CEOs of other companies or have previously held that position is used as a proxy for board human capital [11].

The following are the study's control variables: a) The company's retained earnings represent a significant internal source of funding. According to Poyry & Maury [21], businesses with high retained earnings typically use less debt. Total retained earnings divided by total assets is used to calculate retained earnings. b) Government ownership (GO). Dewenter and Malatesta [22] claim that government-owned companies may profit from implicit or explicit loan guarantees that allow them to take out loans at low interest rates. the portion of a company's shares that the government owns as state ownership. c) Firm Size: The ability to pay interest is higher for larger businesses since they are more diverse than smaller businesses. The logarithm of total employees is used to calculate company size. d) According to Matemilola et al. [23], businesses that are profitable will be able to repay the principal and interest on loans. This will encourage businesses to take on more debt. Net income divided by total assets is used to

calculate profitability.

3.2 Analysis technique

Moderation regression analysis is the method of analysis, and the formula is as follows:

$$\text{Book Leverage} = \alpha_0 + \alpha_1 \text{ Gender} + \alpha_2 \text{ RE} + \alpha_3 \text{GO} + \alpha_4 \text{Size} + \alpha_6 \text{Profitability} + \varepsilon \tag{1}$$

$$\text{Book Leverage} = \mu_0 + \mu_1 \text{ Gender} + \mu_2 \text{Board Human Capital} + \mu_3 \text{Gender*Board Human Capital} + \mu_4 \text{RE} + \mu_5 \text{GO} + \mu_6 \text{Size} + \mu_7 \text{Profitability} + \varepsilon \tag{2}$$

4 Results and Discussion

Table 1 displays descriptive statistics for the research variables used in this study. Table 1 shows that the ratio of the total long-term financial position of the company (long-term debt plus equity) to the average long-term debt over the observation year is 0.129774. With a standard deviation of 0.422398, this variable's highest and lowest values are 0.111400 and 0.022260, respectively. This shows that some companies in Indonesia heavily rely on long-term debt for financing. However, other companies didn't take on any new debt during the observation year. Out of the company's total long-term finances (long-term debt and equity), 0.129774 percent are in the form of long-term debt, according to the average leverage value of 0.129774.

Table 1. Descriptive statistics of research variables

	Leverage	Gender	BHC	RE	GO	Size	Profitability
Mean	0.129774	0.172136	0.272287	0.272247	0.025990	2689.453	0.360219
Maximum	0.111400	1.000000	0.353000	0.780071	0.750000	24785.00	0.50000
Minimum	0.022260	0.000000	0.000000	0.000000	0.000000	17.00000	0.090000
Std. Dev.	0.422398	0.266466	0.875897	0.180650	0.204530	5009.582	0.731843
Obs.	1700	1700	1700	1700	1700	1700	1700

On average, 0.172136 of the CEOs of manufacturing businesses listed on the Indonesia Stock Exchange are female. This number rises as more women take CEO positions. The maximum and minimum values of this variable are one and zero, respectively, with a standard deviation of 0.266466. According to this data, men still hold the majority of CEO roles.

The average board's human capital is 0.272287, with a maximum value of 0.353000, a minimum value of 0, and a standard deviation of 0.875897 (the average board of the companies under investigation has experience as CEO for 0.272287 of all board members). In this study, there are businesses whose board members had no prior experience serving as CEO of other businesses, while the business with the greatest CEO experience has 0.353000 board members.

Retained earnings (RE), which are described as the control variable, have an average value of 0.272247, which means that every rupiah invested by the corporation is backed by 0.272247 of RE. The greatest and minimum values of the RE are 0.780071, 0.000000, and 0.180650, respectively, with no significant values in between.

Average government ownership (GO) is 0.025990, with a standard deviation of 0.204530, and varies from 0 to 0.7500. This illustrates that, with 75% representing the highest ownership and 0% indicating the lowest ownership, the average amount held by the government in the

research sample is 2.599%.

The average firm size (SIZE) is 2.689,453 with a minimum value of 17, a maximum of 24.785, and a standard deviation of 5.009,582. With the highest employee count being 5.009 people and the lowest employee count being 17, this shows that the average firm size, as defined by the number of permanent employees owned, is around 2,689 people.

The profitability value ranges from 0.360219 to 0.50000 with a standard deviation of 0.731843, a minimum value of 0.090000, and a maximum value of 0.50000. The company generates a profit of Rp 0.360219 on average for every Rp 1.00 invested in fixed assets or for the total value of the company's assets, resulting in a net profit of 36,02%.

The findings of the moderation regression analysis utilizing the fixed effect model are presented in Table 2. The Chow test, which identifies the fixed effect or common effect model, is used to select the fixed-effect model. Additionally, it performed the Hausman test, which is a test to identify if a model has a fixed impact or random effects. The fixed-effect model is ultimately the most suitable model to utilize based on these two tests.

The first premise investigates the effect of gender on risky decisions as measured by leverage. The FE model's gender regression coefficient for leverage is -0.064486 with a 0.02585 p-value. These results are consistent with the idea that gender has a detrimental impact on leverage decisions.

The second hypothesis examines how board members' human resources influence how gender influences risk-taking decisions. The test results for the second equation are displayed in Table 2. The gender * board human capital variable's regression coefficient in the FE model is 0.0001 and has a p-value of 0.051117. These findings suggest that board human capital may increase the likelihood that female CEOs may want to make risky decisions, such as the decision to borrow money in this scenario.

Table 2. Summary of test results on the effect of gender on Risky decisions

Variables	Fixed Effect Model	
	Equation 1	Equation 2
C	0.147225** 0.01280	0.113126** 0.02451
RE	0.000325*** 0.0000	0.000322*** 0.0000
GO	1.119276 0.3195	1.131638** 0.0320
Size	0.057944** 0.0311	0.055350*** 0.0000
Profitabilitas	-0.054354*** 0.0000	-0.055350*** 0.0000
Gender	-0.064486** 0.02585	-0.178295** 0.0178295
BHC	0.019954** 0.02060	0.036378* 0.0644
Gender*BHC	- -	0.051117*** 0.0001
Adj. R2	0.528459	0.529964
F-statistic	6.475422	6.500646
Prob.	0.000000	0.000000

5 Conclusions

The regression test's findings show that gender has a negative influence on risky decisions (leverage). This suggests that female CEOs are more inclined to avoid risky decisions, in this case, refraining from borrowing money for the company. Higher levels of leverage have been shown to increase the likelihood that businesses would experience financial hardship and default, and this increased firm risk may transfer into higher levels of career risk for the management of these businesses. Leverage is a very important marker of how risky a company is. Female CEOs differ from male CEOs in terms of their intensive structure, risk aversion, lack of confidence, risk of unemployment, and societal standards, according to Faccio et al. [2]. According to the findings, women tend to be less confident and take less risks than men do. They also tend to make more conservative financial judgments. Women have also been shown to place a stronger priority on strategies that boost safety and avoid the worst outcomes [24].

Based on the study's findings, female CEOs may have the courage to take calculated risks if they have access to both types of human capital. In other words, having board human capital can make it harder to resist taking risks. Thanks to the board's human capital, the CEO can develop specialized knowledge, such as managing complex responsibilities, developing a strategic vision, and making complex strategic decisions, as shown via experience as a CEO in other firms [19]. Due to their experience, these directors are also able to develop tactical knowledge and skills specific to business and industry operations [17].

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