

## Women on Board and Firm Performance Amidst Covid-19 Outbreak

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### Abstract

The study examines the relationship between women on board and firm performance in Malaysian Capital Market amidst Covid-19 outbreak. The study also aims to investigate the effect of different types of industries namely Environmentally Sensitive Industry (ESI) and Customer Proximity Industry (CPI) on firm performance. The study employs OLS regression on top 100 companies listed under Bursa Malaysia for the year 2020. The findings reveal that gender diversity has a favorable and significant effect on the firm's performance measured by Profit Margin (PM), Return on Asset (ROA) & Return on Equity (ROE) and ESI significantly affect firm performance. Meaning that the market places a high value on the involvement of women on boards of directors since it boosts the board's independence and profitability and the different types of industry play significant roles in firm performance. The findings of this study suggest the policymakers to enact suitable legislation requiring a diverse representation of genders on the board of directors.

**Keywords:** Women on Board, Gender Diversity, Firm Performance, Corporate Governance

### Introduction

Good corporate governance practice is widely accepted by most corporations, especially public listed companies to enhance transparency, attract new investments, inculcate good corporate culture, curb misconduct, promote equality and fairness and subsequently boost the performances. Among the good corporate governance practices that gained significant interest is the representation of women on board composition. The board's composition is a significant predictor of board leadership. Under Corporate Governance Strategic Priorities 2017-2020, responding successfully to evolving imperatives and disruptive forces necessitates board diversity in terms of skills, gender, age, and country. The low involvement of women at the highest levels of decision-making, particularly in the business sector, has piqued the

interest of governments, corporations, and scholars in numerous countries throughout the world.

At the global level, the International Labor Organization Report 2021 has advised business enterprises to encourage workplace diversity by providing equal opportunity to everyone. Gender diversity in the workplace is equally about men and women working together for good change. A diversified workforce offers a broader range of knowledge, ideas, and different thoughts which would lead to a more productive working environment and ultimately, an increase in the company's performance. Recognizing its importance, corporations are moving towards improving gender diversity on their Board of Directors. France had enacted the Corporate Board sex quota since 2011 (Rosenblum & Roithmayr, 2015). China reported a high number of women in the labor force but remains low in women representation on Boards due to a lack of legislation on Board diversity (Wang et al., 2022). A similar case is found in Colombian public firms where women are still under-represented on the high corporate level (Moreno-Gomez et al., 2018). A report on Board Gender Diversity in ASEAN listed companies noted a high proportion of women in a senior management position but the representation on Boards is still low (Lim, 2020). Companies' commitment to gender diversity continues to significantly improve as many organizations have been advocating for gender diversity. It has been proven that companies empowering these differences do better than companies that are not. The need for women representation on corporate boards has been studied from a few contexts; ethical/psychological/management/economic.

In the Malaysian context, the 2017 edition of the Malaysian Code of Corporate Governance (MCCG) recommended having 30 percent women directors on boards of large companies, and the Securities Commission's (SC) target was to have 30 percent women directors in listed companies by 2020. The updated version of MCCG 2021 recommended the position of women to be among the top management. However as per Corporate Governance Strategic Priorities 2017-2020, women make up just 17.5 percent of board positions across all listed companies and only 25.1 percent of the board of directors among the top 100 listed companies in 2020. The MCCG 2021 urges 30 percent women directors on all boards to expedite the advancement of women's board membership. As gender diversity and inclusivity become more important components of good corporate practices, it is hoped that more independent women directors will be appointed to fill the void, rather than the wives and daughters of existing directors or major shareholders. In terms of senior management, listed businesses are required to reveal their policy on senior management gender diversity in their annual reports. This is in addition to the board's gender diversity policy being disclosed.

Thus, the research questions addressed are

1. Does the percentage of women on board meet the requirement of MCCG 2017?
2. Do women's representation on the board affect the firm's financial performance?

The rest of the paper discusses the following: Section 2 explores the literature reviews and hypothesis development; Section 3 discusses the sample data and research method; Section 4 elaborates on the discussion of the results; and Section 5 concludes the paper.

## Literature Review

### Women on Board and their contribution in various perspectives

The corporate Boards govern the corporate strategy, and thus, are accountable to the community of various stakeholders at large. Women are also part of the community, thus, ethically, it is appropriate to include them on Boards for the equitable outcome (Konadu et

al., 2021). Women are also said to be more ethical in judgments rather than men since they are more sensitive in taking risks (Mather et al., 2021). In Wang et al (2022), it has been proven that women are risk-averse and commit to ethical business practices. They found that women would have little tolerance for unethical behaviors, and they are more likely than men to blow the whistle in the event of any misconduct. Shareholders would be more confident in companies with more women on boards as this could mitigate any lawsuit risks (Simionescu et al., 2021). Datta et al., (2021) support the notion that females exhibit greater morale and women are also very cautious about integrity.

From a psychological perspective, women are very diplomatic, tolerant, and less aggressive. It helps to moderate the overconfidence of its male counterparts on the Board of Directors (Chen et al., 2019). This would increase Board dynamics resulting in better decision-making. Adding more female directors could also bring new perspectives to the Boardroom (Yap et al. 2017). Women and men are mentally different. Men focus more on the tangible whereas women care for emotions, see the bigger picture and they will weigh the pros and cons prior to deciding (Chen et al., 2019). In addition to that, women are more likely to ask questions than men (Julizaerma & Sori, 2012). Consequently, more information would be available if there were more females on boards (Chen et al., 2019). Female directors also found to take other factors such as humanity into making decisions (Kuzey et al., 2022) and they value relationships over personal gain and as a result would make better judgments for all stakeholders (Kuzey et al., 2022). Several management literatures also provide evidence on gender diversity. In diverse boards, women enhance the monitoring roles as they devote more time to board participation and give attention to details. Women are also more meticulous when it comes to overseeing (Juwita & Honggowati, 2022). It is also proven that women are more diligent in work and comply with rules more strictly than men (Juwita & Honggowati, 2022). Rosenblum & Roithmayr, (2015) believes that women make better leaders because they prioritize family life policies and create flexibility. They are often seen as role models for other women, and this could have a positive effect on teamwork. The same view has been purported where female bosses were better at employee engagement. Communication abilities are varied between men and females. Females listen and communicate better than males, resulting in a more participative Board management relationship than men who prefer a directive management style (Mamadou, 2019). In another study, female representation on boards is claimed to help avoid an all-male communication network (Konrad et al., 2008). To many, women's presence could indicate a better balance of leadership skills (Rosenblum & Roithmayr, 2015).

Having women on boards brings divergent thinking, a wider mix of talents, experiences, insights, and strategies to the table resulting in stronger governance. Better governance inevitably leads to better results. Gender diversity necessitates the appointment of women on boards of directors who bring to the table complementary expertise, skills, management styles, and values (Brodmann et al., 2021). However, some studies see gender diversity would benefit some companies and losses to others. Diversity would hurt productivity because people are more likely to form positive communication with ingroup members (those of their own gender) than with members of another gender (Zhang, 2020)

#### *Women on Board and Firm Performance*

Extension to female contribution and traits discussed earlier, their involvement also leads directly to a firm's performance. From an economic point of view, Mather et a (2021) reported that females are very cautious when they dominate the firms and show low firms'

profit volatility. Another study reported that better-performing firms would demand more females on Boards as it is associated with performance relationships (Mohsni et al., 2021). Furthermore, Birindelli et al (2019) mentioned that women on boards of directors lessen bank financial fragility by encouraging cautious, low-risk financial decisions. Zhang (2020) noted that a more diverse workforce improves knowledge and skills, as well as innovation, resulting in improved output and returns. For a firm's long-term growth, gender diversity can appeal to investors and benefit the company's market worth.

Significant numbers of studies agreed that participation of females on board contributed to firms' financial performance. The study on non-financial firms listed on Bursa Malaysia for the period of 2009 to 2013 reported that the higher the percentage of female directorship increases the firm's performance significantly (Yap et al., 2017). Using Blau index and the Shannon index, they found that the female percentage on board positively and significantly relate to firms' performance. Female directors had a good impact on accounting performance but a negative impact on market performance, according to another research of 841 Malaysian public listed firms in the Main Board of Bursa Malaysia Kuala Lumpur, (Abdullah et al., 2016).

A study among Pakistan firms also reported consistent findings that the female presence on corporate boards is positively associated with financial performance, (Amin et al., 2021). Similar finding can be found in Jiang et al (2021) among Chinese firms. For Indian and Singaporean firms, the result also reported a positive and significant relationship between gender diversity and firms' financial performance but does not affect growth opportunities, (Duppatti et al., 2020). It's interesting to note that the diversity criteria for firms' boards vary across the two nations. India imposed it as a mandatory requirement whereas Singapore as a voluntary requirement. In addition, a study carried out in Gulf Cooperation Council (GCC) nations from 2015 to 2019 over a five-year period revealed that while the proportion of female board members has no discernible impact on corporate financial performance, the presence of female directors on boards may have a positive impact on it (Mousa et al., 2020). A study performed in the microfinance business in India indicates the importance of women in microfinance, and it is obvious that women on boards have a positive and big influence on financial performance, and senior management has a positive and significant influence on social performance (Gallucci et al., 2015).

However, some researchers found that there is no relationship between female composition on board with firms' performance, (Marinova et al., 2016) and (Marquez-Cardenas et al., 2022). The study conducted by Gallucci et al., 2015 in the wine industry in Italy indicates that the inclusion of women on corporate boards has no effect on business performance. However, when the moderating impact of female presence in ownership, this relationship becomes substantial. Thus, this study would like to see the relationship between gender diversity, especially on women's representation towards firm performance amidst Covid-19. Based on the discussion and empirical findings, we propose the following hypotheses:

H1: There is a positive relationship between women's representation on board of the directors and the firm's financial performance.

## **Methodology**

### **Sample and Data**

The study's data set includes the top 100 firms listed on the Bursa Malaysia for the fiscal year ending 2020. The study is based on a one-year period during the outbreak of Covid -19 and it is chosen because the gender quota on the corporate board is highly recommended under

the MCCG 2017, which requires the board to have at least 30% women on board. The relevant data are gathered from the annual reports of respective firms.

### Variables Definition

The primary objective of our study is to examine the relationship between the presence of women directors on boards and firm performance. Our primary measure of women directors is a continuous variable computed as the ratio of the number of women directors on a firm's board to the board size, computed during the year of 2020. Firms' financial performance is measured using profit margin, return on asset and return on equity. For measuring gender diversity, we measure the percentage of women on the board of directors. Following the extant literature, we consider some control variables that are expected to influence firms' financial performance. Some other variables were incorporated to control the effect of these variables on firm performance such as board size (BOD), firm size (ASSET), market capitalization (MCAP), Tobin's Q (TOBQ), Environmentally Sensitive Industry (ESI) and Customer Proximity Industry (CPI).

Thus, we regulate the industry effect by incorporating the variables "CPI" (Customer Proximity Industries) and "ESI" (Environmentally Sensitive Industries) - a dummy variable equal to 1 is used for each kind of industry and 0 otherwise. Tobin's Q ("TOBQ") is used to indicate the organizations' market-based performance. It examines how much higher a firm is valued when compared to the book value of its assets. A Tobin's Q value greater than one suggests that the firm is worth more than the total of its assets. All these variables have been extensively used in the empirical literature as a proxy for firm performance (Cicchello et al., 2021; Arayssi et al., 2016; Zhang, 2012). Data sources and variables' descriptions are presented in Table 1:

Table 1

#### Variables Description

Variable	Definition	Measurement
PM	Profit Margin	Profit margins ("PM") is the ratio of the net income to the revenue and measures a company's earnings (or profits) relative to its revenue. It is to measure the firm performance (Cicchello et al., 2021, Arayssi et al., 2016, Zhang, 2012,)
ROA	Return on Assets	Return on Assets ("ROA"), is the ratio of net income to the book value of the firms' assets; It is to measure the firm performance (Cicchello et al., 2021, Arayssi et al., 2016, Zhang, 2012,)
ROE	Return on Equity	Return on Equity ("ROE") is the ratio of net income to the value of the total shareholders' equity. It is to measure firm performance. (Cicchello et al., 2021, Arayssi et al., 2016, Zhang, 2012)
TOBQ	Tobin's Q	Tobin's Q is the ratio of the market value of a company's assets to the replacement value of those assets and measures the wealth generated by a company for its shareholders. It is to measure the firm value (Cicchello et al., 2021, Yap et al., 2017, Arayssi et al., 2016, Zhang, 2012,)
WOMEN	Women	Women representation on board. It is measured using the

	Representation	number of female directors over the total number of directors.
BOD	Board of Directors	Total number of board members
ASSET	Total Asset	Total asset value (Cicchello et al., 2021, Arayssi et al., 2016, Zhang, 2012)
MCAP	Market Capitalization	Market capitalization (market cap) refers to the value of total ringgit market value of a company's outstanding shares of stock. Market Cap it's calculated by multiplying the total number of a company's outstanding shares by the current market price of one share (Cicchello et al., 2021, Arayssi et al., 2016, Zhang, 2012)
CPI	Customer Proximity Industries	"CPI" (Customer Proximity Industries) – a dummy variable equals to 1 for organisations operating in industries with high consumer closeness (i.e., energy utilities, financial services, food and beverage products, healthcare, household and personal products, retailers, telecommunications, textiles and apparel, waste management and water utilities), and 0 otherwise (Cicchello et al., 2021)
ESI	Environmentally Sensitive Industries	"ESI" (Environmentally Sensitive Industries) – a dummy variable equals to 1 for organizations operating in industries that have an important impact on the environment (i.e., agriculture, automotive, aviation, chemical, construction, construction materials, energy, energy utilities, forest and paper products, logistics, metal products, mining, railroad, waste management and water utilities) and 0 otherwise (Cicchello et al., 2021)

## Results and Discussions

### Descriptive Analysis

Table 2 presents the descriptive statistics of all variables. In general, the observed mean and standard deviation values of asset and market capitalization indicate that the variability is high for the sample firms in respect of market performance. From the total sample size of 100 top public listed companies in Bursa Malaysia, only 35 companies fulfill the MCGG 2017 requirement on the percentage of women on board. It represents 35% of the total samples. The average value of the female percentage of the board size is equivalent to 25 and the highest is about 57 percent. It shows that there are public listed companies still not fulfilling the 30 percent women on board as per MCGG 2017. Apparently, BOD and TOBQ has lower standard deviation. The mean of the profit margin of sample firms is RM 9.611 million while the mean return of assets and return on equity are RM5.143 million and RM14.904 million respectively. The mean female board size is 24 with a maximum value is 57. The minimum (maximum) number of the board of directors is 5 (15) with an average of 9 people. The ASSET has an average of around RM116 million with the lowest value is RM0.1 million and the highest value is RM5261.65 million. The market capitalization has an average of around RM13 million with the lowest value is RM0.582 million and the highest value being RM95 million. The mean (maximum) of Tobin's Q is 1.747 (12.548). Tobin's Q is slightly lower than Yap et al., 2017 (1.94) for the study conducted on Bursa Malaysia Top 100 companies. Firms with Tobin's Q value greater than 1.00 provide superior investment options, have stronger growth potential, and have well-managed assets. Meanwhile, the ESI and CPI are dummy variables measured by 0 and 1.

Table 2

*Descriptive Statistics*

Variable	Mean	Std. Dev.	Min	Max
PM	9.611	34.728	-188.1	147.871
ROA	5.143	8.354	-29.94	30.05
ROE	14.904	26.39	-13.6	201.5
FEMALE	24.443	11.814	0	57.143
BOD	8.69	2.173	5	15
ASSET	115.735	552.176	.1	5261.648
MCAP	13.184	17.621	.582	95.102
EMP	10223.34	15344.88	292	85000
TOBQ	1.747	2.689	0	12.548
ESI	.49	.502	0	1
CPI	.52	.502	0	1

**Correlation Analysis**

Table 3 presents Pearson's correlation analysis of the women board directors, ESI and CPI, and firm performance as well as other key variables. The involvement of women on board is positively associated with firm performance for all measures, profit margin (PM), return on asset (ROA), and return on equity (ROE) as expected. However, the board of directors (BOD), ESI, and CPI industries are negatively correlated. Further, we observed correlation coefficient among the explanatory variables is not that high except for ESI and CPI since both are dummy variables with a coefficient of -0.98 thus the analysis suggests separate regression for each. Another correlation among variables is also not too high as the highest coefficient is 0.522. Therefore, multicollinearity among the explanatory variables is not an issue in the present data set.

Table 3

*Pairwise correlations*

Variables	PM	ROA	ROE	FEMALE	BOD	ASSET	MCAP	TOBQ	ESI	CPI
PM	1.000									
ROA	0.589***	1.000								
ROE	0.184*	0.563***	1.000							
FEMALE	0.236**	0.193*	0.365**	1.000						
BOD	-0.040	-0.161	-0.213**	0.102	1.000					
ASSET	0.178*	0.064	-0.013	0.033	0.157	1.000				
MCAP	0.074	-0.026	-0.026	0.194	0.297***	0.064	1.000			
TOBQ	0.122	0.522***	0.395***	0.084	-	-0.129	0.062	1.000		
EMP	-0.101	-0.173	-0.105	0.021	0.201**	0.198**	0.386***	-0.128	1.000	
ESI	0.137	0.061	-0.197**	-0.112	0.048	0.080	-0.112	-0.076	0.048	1.000
CPI	-0.142	-0.073	0.187*	0.113	-0.017	-0.084	0.103	0.066	-0.054	-0.980***

t statistics in parentheses of confidence level \* p<0.10, \*\* p<0.05, \*\*\* p<0.01

**Empirical Models**

Applying OLS regression, the study examines the effect of gender diversity on business performance. As discussed in the introduction, prior studies have documented mixed evidence on the relationship between the presence of women directors and firm performance. According to Amin et al (2021); Jiang et al (2021); Duppati et al (2020); Yap et al (2017); Abdullah et al (2016), female directors have a significant and positive influence on firm performance. Hence the model incorporated female board directorship in the model.

The first model also tested for the ESI since ESI has a significant influence as well as CPI. ESI and CPI have a significant effect on the firm performance following these literatures (Zhang & Fang, 2022; Aharon et al., 2021). Hence Model 1 and Model 2 include ESI and CPI respectively. The following is the model used to provide empirical results:

Model 1

$$\pi_i = \alpha_i + \beta_1 FEMALE_i + \beta_2 BOD_i + \beta_3 ASSET_i + \beta_4 MCAP_i + \beta_5 TOBQ_i + \beta_6 ESI_i + \varepsilon$$

Model 2

$$\pi_i = \alpha_i + \beta_1 FEMALE_i + \beta_2 BOD_i + \beta_3 ASSET_i + \beta_4 MCAP_i + \beta_5 TOBQ_i + \beta_6 CPI_i + \varepsilon$$

Next, the model was diagnosed with a few tests presented in Table 4 to ensure the validity of OLS estimation. Among the tests is the normality test, Breusch-Pagan test, multicollinearity test and model specification error. The swilk test performs the Shapiro-Wilk W to test for normality of data distribution. The p-value assumes that the distribution is normal. In our case, the null hypothesis was rejected hence the data is not normally distributed. Second, we use the VIF command after the regression to check for multicollinearity. The data do not suffer multicollinearity problems since the VIF values are below 10. Third, the Breusch-Pagan test for detecting heteroscedasticity and the null hypothesis that the variance of the residuals is homogenous failed to accept hence the suffering heteroscedasticity problem. Finally, the test of model specification error was conducted and the coefficient of hatsq is not significant. This is to say that the test has failed to reject the assumption that the model is specified correctly. Therefore, the model does not have a specification error. So, we do have two problems of non-normality data distribution and heteroscedasticity, therefore the need to use robust command in analyzing the data.

Table 4

*Specification tests results summary for the Panel*

Test	Coefficient	Hypothesis
Normality test	0.72588***	Reject the null
Breusch-Pagan test	19.47 ***	Reject the null
Multicollinearity test	1.30	<10
Model specification error	-.0098612	Accept the null

## Results

The study aims to examine the influence of women on board on firm performance. The firm performance measures using profit margin (PM), return on equity (ROE), and return on asset (ROA). We regress using the OLS estimation method and the results are presented in Table 5. Results on the first model with WOMEN and ESI as variable interest are presented in column 1-3, and the subsequent column 4-5 present the result on the effect of WOMEN and CPI on firm performance. We also conduct the robustness test to ensure the reliability of our findings and its consistency on the influence of women on board using different measures as shown in Table 6. The coefficient on WOMEN is positively significant in most specifications. This suggests that the women on board enhance firm performance amidst the Covid-19 outbreak. The finding confirms past studies such as (Amin et al., 2021; Jiang et al., 2021; Duppati et al., 2020; Yap et al., 2017; Abdullah et al., 2016).

Furthermore, the TOBQ also shows positive and significant effects on firm performance. Intuitively, the TOBQ is 1.747 which is above 1 and consistent with (Yap et al., 2017). In



contrast, the outcome for ESI and CPI are inconsistent with the different measures of firm performance. In Table 5, ESI has a significant positive effect on PM. This can be explained by stakeholder pressure and social scrutiny are severe in the environmentally sensitive business (Zhang & Fang, 2022). Environmentally sensitive industries have considerable environmental investment and are expected to have stringent regulation, which leads to more environmental disclosure and attracts stakeholders, hence improving business performance. Consistent with empirical evidence collected by Simionescu et al (2021), on information technology sectors, the results of the pooled ordinary least squares (OLS) approach give support for a beneficial effect of women on corporate boards on business performance. On the other hand, CPI shows a significantly negative effect on PM. Performance of the CPI declined due to social distance regulation and closures of businesses. Aharon et al (2021) stated that the customer proximity industry was continuously harmed by closures due to the pandemic Covid-19. The closure of public transit, domestic travel restrictions, and mandatory stays at home had a significant detrimental impact on the hospitality business's revenue.

To conclude, the results achieved to answer the research questions by presenting that woman strongly influences the firm performance in positive directions during a crisis. Hence, the women directors should be retained in the positions regardless of the economic situation to ensure the viability of the firm's performance throughout the business cycle. The average female proportion of board size however demonstrates that some publicly traded corporations are still failing to meet the MCCG 2017 target of 30% female board members.

Table 5  
*Main Results of Gender Diversity*

	(1)	(2)	(3)	(4)	(5)	(6)
	COL1	COL2	COL3	COL4	COL5	COL6
Independent variable	PM	ROA	ROE	PM	ROA	ROE
female	0.656** (2.299)	0.120* (1.930)	0.793*** (3.987)	0.657** (2.302)	0.121* (1.941)	0.794*** (3.987)
bod	-0.419 (-0.249)	0.016 (0.043)	-1.509 (-1.283)	-0.295 (-0.175)	0.033 (0.090)	-1.575 (-1.340)
asset	0.121*** (2.821)	0.009 (0.918)	-0.018 (-0.602)	0.120*** (2.814)	0.009 (0.919)	-0.018 (-0.590)
emp	-0.000 (-1.289)	-0.000 (-1.084)	-0.000 (-0.051)	-0.000 (-1.303)	-0.000 (-1.101)	-0.000 (-0.047)
mcap	-0.077 (-0.320)	-0.039 (-0.732)	-0.094 (-0.558)	-0.084 (-0.346)	-0.039 (-0.745)	-0.090 (-0.534)
tobq	2.449* (1.740)	1.671*** (5.437)	2.975*** (3.030)	2.448* (1.740)	1.672*** (5.449)	2.978*** (3.031)
esi	14.582** (2.196)	2.086 (1.439)	-7.419 (-1.602)			
cpi				-14.643** (-2.211)	-2.211 (-1.531)	7.127 (1.541)
Intercept	-15.836 (-0.957)	-1.206 (-0.334)	9.251 (0.802)	-2.042 (-0.124)	0.820 (0.228)	2.378 (0.207)
Adj.R2	0.12	0.28	0.26	0.13	0.28	0.26
N	100	100	100	100	100	100
F-stat	3.012	6.468	6.038	3.023	6.525	6.000

*t* statistics in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 6  
*Robustness Results of Gender Diversity*

	(1)	(2)	(3)	(4)	(5)	(6)
	COL1	COL2	COL3	COL4	COL5	COL6
fbod	6.833 (1.447)	1.303 (1.549)	8.190* (1.702)	6.850 (1.449)	8.193* (1.702)	8.193* (1.702)
bod	-1.940 (-0.757)	-0.277 (-0.737)	-3.328 (-1.584)	-1.823 (-0.716)	-3.398 (-1.598)	-3.398 (-1.598)
asset	0.123* (1.854)	0.009 (0.955)	-0.016 (-0.604)	0.122* (1.853)	-0.015 (-0.591)	-0.015 (-0.591)
emp	-0.000* (-1.756)	-0.000 (-0.938)	-0.000 (-0.135)	-0.000* (-1.770)	-0.000 (-0.130)	-0.000 (-0.130)
mcap	-0.081 (-0.357)	-0.040 (-1.060)	-0.098 (-0.933)	-0.087 (-0.385)	-0.093 (-0.888)	-0.093 (-0.888)
tobq	2.493** (2.182)	1.677*** (3.827)	3.031* (1.984)	2.492** (2.184)	3.035* (1.983)	3.035* (1.983)
esi	14.137* (1.861)	2.011 (1.297)	-7.966* (-1.864)			
cpi				-14.213* (-1.885)	7.658* (1.808)	7.658* (1.808)
Intercept	-1.123 (-0.056)	1.509 (0.437)	27.022* (1.889)	12.279 (0.703)	19.655* (1.686)	19.655* (1.686)
Adj.R2	0.11	0.27	0.23	0.11	0.23	0.23
N	100	100	100	100	100	100
F-stat	2.117	2.738	2.518	2.141	2.468	2.468

*t* statistics in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

### Conclusion and Recommendation

As conclusion, women had a strong positive influence on company performance during a crisis. Hence, regardless of the economic condition, women directors should be retained in their roles to ensure the viability of the firm's performance throughout the business cycle. The average female board size, on the other hand, shows that some publicly traded businesses are still falling short of the MCCG 2017 target of 30% female board members. Furthermore, ESI performs better profitably as compared to CPI despite the pandemic.

Based on the findings, this study makes several contributions. Theoretically, the findings add to existing gender diversity literatures by giving additional empirical evidence that women on boards have a considerably favorable influence on firm performance despite the crisis of Covid-19. Furthermore, this study also provides policymakers with input and new knowledge they can use to enact legislation requiring a diverse representation of genders on the board of directors. Although adherence to the code is not mandatory, any deviations must be justified in the annual reports of the companies. Thus, Malaysia shall offer a rich setting for research on the effects of female directors' performance in emerging markets. Furthermore, during the crisis of Covid-19 there is a change in leadership which increases uncertainty thus women's representation on the board has proven to increase the firm performance hence increasing long-term sustainability.

This study has some limitations. This study is confined only to the impact of women on board on company performance in Malaysia's top 100 publicly listed companies in the event of Covid-19 outbreak. In addition to that, this study investigates data in a shorter window period. Thus, the results do not represent the entire population of capital market participants. As such, future studies aided by increased transparency should explore the link between board gender diversity among various categories of market participants, for example, Small and Medium enterprises (SMEs), private companies, and Non-Profit Organizations (NGOs) in Malaysia. In addition, longer panel data can be tested to strengthen the current finding. Furthermore, women's characteristics, as well as distinctive female director qualities such as age, education level, and family relationship among the board members, should be addressed.

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