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Impact of Corporate Governance on Firm Performance of Malaysian Public Listed Construction Firms During COVID-19 Pandemic

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Abstract

The governance of companies has been the subject of increasing interest following the pandemic COVID-19. Despite the claim that corporate governance is a tool that may help companies sustain it business performance during the pandemic, the number of empirical research studying this unprecedented scenario is still limited. This study aimed at examining the impact of corporate governance mechanisms; board size, board independence, gender diversity and CEO diversity on the firm performance of Malaysian public listed construction firms during the COVID-19 pandemic's bitter period. This study adopts quantitative research approach wherein by employing secondary data. The data sample of this study are extracted from the audited financial statements for the year ended 31 December 2020 from 53 Malaysian public listed construction firms. The findings revealed that, the board independence is positively significant associated to the firm performance. In interval, the board size, gender diversity and CEO diversity are found to be insignificant associated to the firm performance. This study contributes to the policy makers that give a current insight in setting up better corporate governance mechanisms which are capable of meeting challenges in such a grave economic situation. The outcome of this study benefits to the organisation by way of providing them with the tested solutions in their planning and decision making, and as well as to the academicians for future research on the subject related to this area. Future research could expand the setting to include other industries in order to more thoroughly assess the impact of corporate governance on firm performance during the pandemic because the current study is primarily focused on the construction industry.

Keywords: Firm Performance, Corporate Governance, COVID-19 Pandemic, Construction Industry, Malaysia

Introduction

Firm performance is the measure to determine the success of firms in their social, political and economic development hence in order for them to survive in competitive business environment, firms have to improve their performance from time to time (Taouab & Issor, 2019). It is important for a business to gain on the ground of the firm performance of the business to ensure that they are still remain relevant in the industry particularly during the unprecedented period of COVID-19 pandemic. The COVID-19 pandemic has affected the economy in majority of countries around the world (Marques et al., 2021). In the midst of COVID-19 pandemic, many of the organisation across the world have been affected and which some are still struggling to survive in order to remain relevance in the industry. Taking it to the worst, the situation may lead to recession and possible economic depression. The Malaysian Ministry of Finance (MOF) had highlighted that throughout the pandemic, the moment when the government had decided to put on total full lockdown, it had badly affected the Malaysia's GDP, where the country had lost RM2.4 billion per day on its GDP.

As a solution to the current unprecedented issue, the mechanisms of corporate governance of a business are crucial to reduce the economic run-down impact of the pandemic. Malaysian Code on Corporate Governance (2012) defined corporate governance as the framework and process applied to provide direction and the manner on managing business matters of the company whilst taken into consideration the shareholders' values and interests. By implementing good corporate governance, a company have a better chance to sustain in the industry. Furthermore, it has been highlighted by La Porta et al (1998) that specific good governance of firm and country, such as board independent, separation of management functions and legal protection of stakeholders, will increase the corporate value in any course of events. Therefore, in any circumstances, company that exercise good corporate governance will survive and sustain in fine fettle. It has been strongly supported by Dowell et al (2011) which affirmed that the efficiency of corporate governance can be related to firm's life cycle and its financial condition.

In recent years, considerable attention had been made to the impact of corporate governance on firm performance in economic and financial literature during the time of crisis. For instance, the Asian financial crisis of 1997/1998 which had severely affected the majority of Asian countries and had changed the landscape of the corporate governance practices in many countries, including Malaysia, had led to this increase of focus. There are few researches had been made to identify on how corporate governance mechanisms may help in maintaining firm's performance (Van Essen et al., 2013; Pillai and Malkawi, 2018; Croci et al., 2020; Khatib and Nour, 2021). Study by Metrick and Ishii (2002) agreed that corporate governance mechanisms increase the performance of the firm and maintain its firm performance. Van Essen et al (2013) believed that corporate governance mechanisms will boost the firm performance in any economic conditions. Furthermore, by implementing effective corporate governance mechanisms, it has proven to influence the firm performance in which it will ensure corporate transparency and disclosure by minimize the issue of corruption, bribery and misconduct (Pillai and Malkawi, 2018). In addition, study conducted by Croci et al (2020) supported that corporate governance mechanisms determines the firm performance in which board composition, board structure, directors' expertise and board characteristics will determine the effectiveness of the board thus influence the firm performance. Lastly, Khatib and Nour (2021) believes that firm which exercise effective corporate governance mechanisms perform better.

One of the industries that badly affected by the COVID-19 pandemic in Malaysia is the construction industry. Construction industry in Malaysia had been developed ever since the country achieved its independence. Amponsah and Frimpong (2020), forwarded that in order to ensure the economy of any country to be well functioning, the construction industry has to be in priority. In addition, Ofori (2015) stated that to achieve national goals, construction industry is an important player where it will complete all the aspects of physical, social and economic. Construction industry is considered as the main industry that comes into the highlight and attention of the government when compared to other industries (e.g., manufacturing and agriculture). It can be seen from the initiatives that had been drafted by the Malaysian government to set better provisions on the development of the construction industry in Malaysia. During the COVID-19 pandemic, the construction industry productivity of the worldwide had also been in dire state (Kazeem, 2020). The implementation of partial and full lockdown in each country had made it worse. Due to this situation, there are few projects had been delayed and thus affect the progress of the economy (Construction Covid-19 Response Task Team, 2020). It is reported that by 18 months since the pandemic began there are 2 million people affected by the COVID-19 worldwide and amounted to over 138,000 deaths recorded while the vaccine is being developed to curb the disease (Brown et al.,2020). This situation had strongly pushed companies especially those within the construction industry to formulate few initiatives to curb the downturn of the economy and to bounce back to recover from the pandemic.

To sustain the firm performance of the construction industry during the economic downturn, particularly during the COVID-19 pandemic, few initiatives had been made to cater with the current economic situation. One of the initiatives is by the implementation of an effective and efficient corporate governance mechanisms in the firm within the construction industry. In recent times, there had been noteworthy attention made to the relationship between corporate governance and business performance. The subject matter went into the world's limelight especially after the financial scandals of well-established organizations in the US economy, such as the collapse of WorldCom and Enron, and much more in the face of abuses of power by their board of directors (IFAC, 2003). Current literatures that focusing on the impact of corporate governance mechanisms to the firms' performance in the construction industry particularly during the COVID-19 pandemic is still lacking. Therefore, the current study was conducted to fill the knowledge gap in this area of research. The primary objective of this study is to examine how corporate governance mechanisms have an effect on the firm performance of construction firms in Malaysia. Specifically, this study examined the relationship between corporate governance mechanisms that are (i) board size, (ii) board independence, (iii) gender diversity and (iv) CEO duality, on the firm performance of Malaysian public listed construction firms during COVID-19 pandemic.

Literature Review, Conceptual Framework and Hypotheses Development

Corporate Governance and Firm Performance

Corporate governance is defined as the structure and process being applied to manage and direct any business-related issue of an organisation in order to improve the business growth whilst taking into account the stakeholder's wealth (High Level Finance Committee Report on Corporate Governance, 1999). Corporate governance plays an important role in development of a firm and in ensuring the firm is competitive enough in the global industry (Ehikioya, 2009; Iwasaki, 2008). Gupta and Sharma (2014) stated that by applying good corporate governance, it will reflect the excellent reputation of the company and increase the trust of the investors and the shareholders. It has been proven in a study by Wijethilake et al., (2015) which stated that from the investor's perspective, the organisation that implemented good corporate governance will have better credibility and better performance. In the same note, it has been supported by another study in which it was found that by implementing good corporate governance, it will ensure the shareholders' right, increase the corporate transparency and provide better disclosure of financial and non-financial information (Black et al., 2015; Abdifatah, 2014; Munisi and Randey, 2013; Duk-Ho, Kim et al., 2013).

It was discovered that the collapse of many high-profile companies during the Asian financial crisis 1997 is due to the failure of the corporate governance of the company itself (Sulong and Nor, 2008). In a few studies that had been done, the researchers had found that specific factors contributed to the collapse of big companies during Asian financial crisis 1997 are due to inadequate financial disclosure, lack of corporate transparency and weakness of corporate governance of the organisation (Gupta and Sharma, 2014; Duk-Ho et al., 2013). Due to this alarming situation, many countries worldwide have taken initiatives on introducing and improving their corporate governance structures, such as South Korea had changed the conglomerates or Chaebouls system, Singapore implement new corporate governance code in 2001 and Sri Lanka implement new Code of Best Practice in 2008 (Duk-Ho et al., 2013; Nguyen et al., 2014; Guo and Kga, 2012). Within the same premises, the Malaysian government has taken an initiative to introduce corporate governance frameworks, namely the Malaysian Code of Corporate Governance (MCCG 2000, 2007, 2012, 2017 and 2021) which is in alignment with the Principles of Good Corporate Governance and Best Practice Recommendations in Australia (ASX 2003 and 2007), Sarbanes-Oxley Act in United States of America (SOX 2002) and Combine Code on Corporate Governance 2003 in United Kingdom.

In order to promote sound and efficient corporate governance mechanism in Malaysia, the government had first introduced the Malaysian Code on Corporate Governance in the year 2000 (MCCG, 2000). Furthermore, to increase the strength of the responsibilities and roles of the board committee, board of directors and internal audit function, a revised version of MCCG through the Malaysian Code on Corporate Governance 2007 (MCCG 2007) was introduced. Later, based on the current framework namely Corporate Governance Blueprint 2011 to strengthen the board composition and structure, the Malaysian Code on Corporate Governance 2012 (MCCG 2012) was introduced by the government. Public listed companies were required to reflect in their annual reports their compliance towards the recommendations of MCCG 2012, while other than public listed companies are encouraged to voluntarily report such disclosure. In 2017, the government had once again revised the MCCG. The main objective of the revised MCCG is to promote greater internalisation of corporate governance culture (MCCG, 2017).

There are few differences between the outlined of the corporate governance elements in MCCG 2012 and MCCG 2017. The first difference outlined is the element of gender diversity. In MCCG 2012, there is no standards implemented on the existence of women directors within the board, but in MCCG 2017, additional standard had been included which make it a compulsory requirement for large companies to hold at least 30% of woman directors within their company's board (MCCG, 2012; MCCG, 2017). The element of CEO duality is the second difference outlined in the MCGG 2017. In MCCG 2012, the standards stated that the positions of CEO and chairman should be held by different individuals, where the chairman must be non-executive member of the board. However, in MCCG 2017, the standards had set that the positions of CEO and chairman are held by different individuals despite he is executive or nonexecutive members (MCCG, 2012; MCCG, 2017). The third difference being the element of board independence. In MCCG 2012, the practices set indicated that the board must comprises of a majority of independent directors, where the chairman is not an independent director. However, in MCCG 2017, the practices set specified that the independent directors must be at least half of the board, which large companies must have majority independent directors within the board. All in all, corporate governance framework helps in strengthen the firm performance and the corporate credibility of the company.

Construction Industry in Malaysia

The development of construction industry in Malaysia had started in the early 1900s as evident by the few mega projects that had been set up by the government. The Government had established an ambitious benchmark through the introduction of Vision 2020. Whereby year 2020, Malaysia is envisaged to become a fully industrialised country. Therefore, in alignment with the vision, the government had invested in development of mega infrastructure in the vicinity of Kuala Lumpur city area. Within the years passed, Malaysia had undergone rapid development in the construction industry. Construction industry is important to the country as it contributes to social and economic infrastructure enhancement of industrial production. Therefore, more mega projects have been rapidly developed from year to year by the government as an initiative to a better infrastructure for economic growth. Table 2.1 below shows the current major government projects in Malaysia.

Table 2.1
Major Government Projects in Malaysia (2020-2030)

Major Government Project	Years	RM (billion)
River of Life, Kuala Lumpur	2024	4.40
Central Spine Road	2026	7.30
Pan Borneo Highway	2024	15.27
Merdeka 118	2021	5.00
TOTAL		**31.97**

Source: Construction Industry Development Board, 2020

In ensuring that the construction industry is well regulated, there are two main administrative bodies being responsible in Malaysia. The two main bodies, namely, the Construction Industry Development Board (CIDB) and the Department of Statistics Malaysia (DOSM) (Gholamreza et al., 2021). CIDB has been established since 1994 under the Malaysian Work Ministry, with the main responsibility to ensure the quality and to promote safety in the construction industry. On the other hand, DOSM had been established since 1949 under the Department of the Prime Minister, in which the primary responsibility of the department is to observed the economic and social development based on the latest statistics that had been collected and analysed. In the nutshell, construction industry is the main industry that contributes to the Malaysia’s GDP after manufacturing and agriculture industry. According to DOSM (2021), there are five main industries that contribute to the Malaysia’s GDP, which are; construction, agriculture, mining & quarrying, manufacturing and services. Therefore, construction industry can be classified as one of the key areas that support the acceleration of the country’s GDP.

Conceptual Framework

The conceptual framework of this study is developed based on agency theory (Fama & Jensen, 1983; Jensen & Meckling, 1976; Subramaniam, 2006). This framework identifies variables from the theory in order to understand corporate governance mechanisms effect to the firm performance. Based on the Figure 2.1 below, an illustration on the relationship and linkage between the independent variables of this research that is corporate governance mechanisms measured by the board size, the board independence, the gender diversity, and CEO duality with the dependent variable which is the firm performance proxied by return on asset (ROA) of construction firms in Malaysia during COVID-19 pandemic.

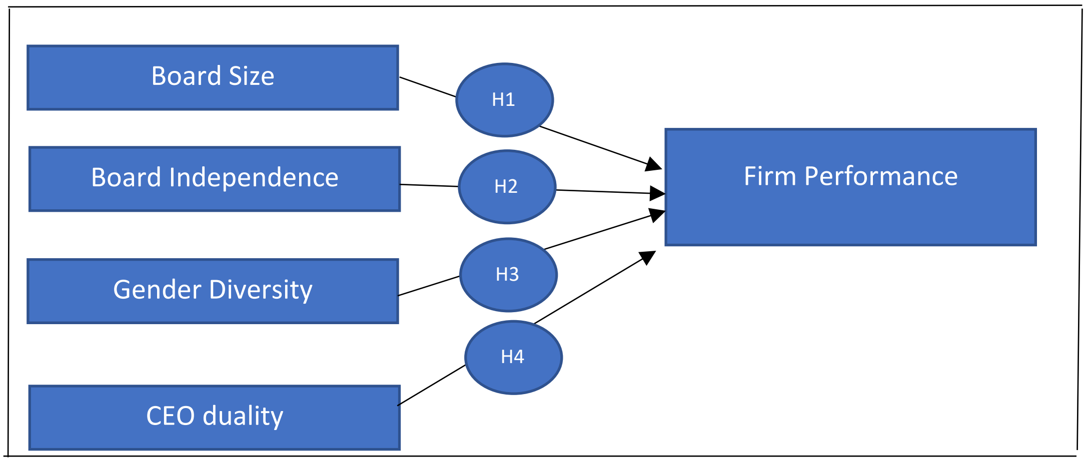

Figure 2.1: The Conceptual Framework

Hypotheses Development

The Board Size and The Firm Performance

Board size has been defined as the number of directors who are presiding over the board (Cheng, 2008). Within the same premise, board size has been defined as the overall number of directors that are able to influence the corporate governance of a company as well as their performance (Yermack, 1996). The board size is an important element to the board structure (Noor and Fadzil, 2013). The optimal number of board size will enhance the company's performance (Wijethilake et al., 2015; Romano and Guerrini, 2013). Prior research findings on the optimal number of board size or the ideal board size vary across the countries. The study conducted by Peng et al (2015) had found that the average board size in China's company is 11, while the average board size in British's company is 13. Board size is found to be the crucial elements of corporate governance that will determine the board functionality (Nguyen et al., 2014). It is argued that boards of directors with small numbers of directors' benefit from low levels of communication breakdown and good coordination, resulting in better monitoring and control of management (Ahmed et al., 2006; Dey, 2008; Jizi, 2017). Furthermore, high responsibilities and duties might impact the directors' performances, which might hinder their monitoring role if there is a limited number of board members (Beiner et al., 2004; Jizi, 2017).

Previous study had examined that as board size increase, conflict of interest will arise, as well as communication obstacles, which ultimately deteriorate the firm's performance (Shukeri et al., 2012). There was study which claimed that larger board is harder to control between members and better monitoring on firm financial performance and the study also argued that larger board size has more outsider linkage, ability to extract critical resources such as funding, and expertise or experience in running the business and these attributes could lead to higher performance (Druckeriv, 1992). Coles et al., (2008) findings show that larger firms will derive greater firm value from having larger boards. Thus, with the presence of bigger board size, proper management and control will be emphasised and support to improve the company's financial and non-financial performance. In addition, previous literatures agreed that board size has positive relationship with the firm performance (see i.e., Tulung and Ramdani, 2018; Merendino and Melville, 2019; Allam, 2018; Brahma et al., 2021; Ahmadi et al., 2018; Qadorah & & Fadzil, 2018). Therefore, the hypothesis can be described as follow:

H1: There is a positive relationship between the board size and firm performance of Malaysian public listed construction firms during COVID-19 pandemic.

The Board Independence and The Firm Performance

Board independence has been defined as non-executive director of the corporation and do not have any business interest related to the corporation that can influence their independent judgment (Bursa Malaysia, 2003). Agrawal and Knoeber (1996) defined independent directors as the one with no relation or interest with the management of the company, thus the independent directors are less likely to get involved with the management decision and are based only on their personal opinion. The number of directors is consisting of independent and non-independent directors. According to Malaysian Code of Corporate Governance 2017 (MCCG 2017), the corporate governance framework requires company to have independent directors 50% more of the board, hence the company need to established nominating committees chaired by an independent director to ensure the thorough independence of the board. If a company has higher number of the board of directors, the number of independent directors is higher than non-independent directors. Herein, the study will look into whether the board independent element plays an important role or give positive impacts on the firm performance.

Jensen et al (1976) forwarded that according to agency theory, firms may reduce the agency conflict and to increase the firm performance through effective monitoring by the Independent Directors. Moreover, Jensen et al (1976) also stated that boards consist of more numbers of external directors will provide more value than internal directors. Therefore, to reduce the agency costs, firm has to include a higher number of independent directors in the company (Mobbs, 2013). Previous studies showed mixed findings on the relationship between firm performance and board independent (Daily & Dalton, 1992). There were studies which found a positive relationship between board independent and firm performance when referred to the board monitoring role and experiences. On the other hand, previous studies had found that there is negative relationship between board independent and firm performance in when taken into consideration that the board may not be entirely independent (Daily & Dalton, 1992). A study by Muniandy and Hillier (2015) had found a positive impact between board independence and other variables in determining firm performance. Furthermore, Shaukat et al (2015) also found a positive relationship between board independent and firm performance which related to environment and society. Independent directors reflect better independency and objectivity in their decision making on the management of the firm. Thus, based on findings from the previous studies, the hypothesis that can be developed is as follow:

H2: There is a positive relationship between the board independence and firm performance of Malaysian public listed construction firms during COVID-19 pandemic.

The Gender Diversity and The Firm Performance

Gender diversity refers to the presence of female directors in the firm's board (Agyemang-Mintah & Schadewitz, 2017). Previous study had found that company which practice diversity in the board composition will result in better creativity, revenue and contentment (Milliken and Martins, 1996). This is due to different personality and attitudes towards risk assessment between male and female directors (Adam and Ferreira, 2009). Having female directors as part of the corporate decision making is vital, as being recognised by the policy makers. The Malaysian Code on Corporate Governance 2017 (MCCG 2017) had highlighted that the board is required to have a minimum of 30% female members in large companies. The trend of having female directors on board as part of the decision-making process had increased.

There were various studies conducted to examine the effect of gender diversity on the firm's performance that show mixed result. Research by Gul et al (2011) discovered that having a high number of female directors increases the board monitoring and control process. It also acts as a substitute mechanism which could increase the firm's performance. Having female directors can help more in understanding the customers' needs and thus having the knowledge on the right measures that need to be implemented in order to meet the customer's expectations (Brennan & McCafferty, 1997). Furthermore, having female directors on board will increase the firms' diversity and legitimacy (Assenga et al., 2018). Moreover, female directors are able to minimize agency costs as they can make comprehensive decisions. Zhang (2020) highlighted that female directors facilitate in open and detail discussion in which they contribute various solutions and knowledge to improve the efficiency and effectiveness of the firm. Brahma et al., (2021) believes that gender diversity will help in reducing the level of risk that firm will face. Ahmadi et al (2018) pointed out that female directors on board will increase the knowledge creativity and innovation thus complement the element of competitive advantage. However, Randoy et al (2006) had observed that no significant relationship between gender diversity and firm performance. Gender diversity in a board set up does not give an effect on the firm's profitability and stock market valuation. Nevertheless, Khan et al (2017), had found a positive relationship between gender diversity and firm performance. Therefore, the following hypothesis is proposed:

H3: There is a positive relationship between the gender diversity and firm performance of Malaysian public listed construction firms during COVID-19 pandemic.

CEO Duality and Firm Performance

Chief Executive Officer (CEO) is the highest ranking in the governance of the organisation. The CEO plays the role as a leader of an organisation in managing the overall organisation. CEO's responsibility also included in making major corporate decisions on behalf of the shareholders. However, the CEO is not limited to one position, there is also CEO with two positions, known as CEO duality. Some companies, the CEO and chairman are the same person with two responsibilities. The difference between the CEO and the chairman is that, the CEO is to give an executive direction, planning and revising the policy of the company in order to achieve the organisation's goal, whereas the main role of the chairman is to manage and provide leadership to the Board of Directors (Boal and Hooijberg, 2001; Farhat, 2014; Dey et al., 2011).

CEO duality refers to the practice in which the CEO of the company holds both the position of the company as the chairman of its Board of Directors and at the same time as the CEO. The elements that fall under the CEO Duality are on the decision making (whether it is influenced by any conflict of interest) and the company structure. Some studies found that the CEO duality brings benefit in preventing the influences of the CEO on the Board of Directors for their own beneficiary. The CEO duality were found to bring good impact in the organisation's governance. The dominance over the board of directors had been allowed by the CEO duality in order to fulfil the individual objectives of the CEO (Abels et al., 2013). The benefit from the duality may be able to prevent the CEO from influencing the Board of Directors in fulfilling their own interest. That kind of attitude is not healthy to the company because the CEO is putting the company backwards. The effect of the duality will lead to the successfulness of the organisation in achieving the company's goals.

Prior studies have found mixed results on the effect of CEO duality to firm performance. Some previous studies found negative argument on the CEO duality and firm performance. CEOs of firms that merge or acquire the controlling interest in other firms and who also hold the dual position of chair stand to benefit more compared to CEOs who do not hold the chair position (Dorata et al., 2008). Furthermore, Merendino and Melville (2019) found that non-duality of CEO will contribute to more expertise and skills between the Chairman and the CEO. The CEO duality will neglect the independency of the board as there is only one person leads the company thus the responsibility of independent directors will be questioned. A study by Kao et al (2019) found out that CEO duality will badly affect the internal control system of the firm. This has been supported by Brahma et al., (2021) stated that CEO duality will result to poor performance as the director has over-commitment on the multiple directorships. CEO duality may lead to problem in delivery of information thus increase the information cost (Hsu et al., 2021). Lastly, the negative association between the gender diversity and the firm performance has been supported by Pham and Pham (2020) which highlighted that CEO duality decrease the monitoring and supervision role. This argument focusing on the benefit that may be received by the CEO who had dual position compared to the CEO that only have a single responsibility.

On the other hand, research done in Malaysia, have proven the positive association between the CEO duality and the firm performance (see i.e., Ahmadi et al., 2018; Qadorah et al., 2018). CEO duality increase the shareholders' benefits (Ahmadi et al., 2018). CEO will be more efficient in optimizing his duties to fulfil the shareholders' wealth as the same person holds the role of board chairman. Thus, based on past studies and the above arguments, the following hypothesis is posited:

H4: There is a positive relationship between the CEO duality and firm performance of Malaysian public listed construction firms during COVID-19 pandemic.

Methodology

Sampling and Data Collection

This study obtained secondary data to operationalise dependent variable; Firm Performance which measured by Return on Asset (ROA) and independent variables proxied by board size, board independence, and gender diversity. In this study, public listed construction companies in Malaysia have been chosen as the population. The reason for public listed construction companies been chosen is because all of these listed companies regulated under few listing requirements set by the regulator bodies in such that they have to disclose their financial books where the information can be access by the public and other users. Therefore, data collected will be more sufficient, reliable and valid. The sampling method applied in this study is the simple random sampling technique. Simple random sampling will randomly select subset of a population (Sekaran and Bougie, 2010). The concept of simple random sampling is each sample has an equal probability of being selected. This sampling technique more straightforward and reflects high internal and external validity. According to Bursa Malaysia (2021), there are total of 61 public listed construction companies in Malaysia. As referring to the sampling by Sekaran and Bougie (2010), sample size of 53 public listed construction companies has been selected. Data was extracted from 53 sample firms' financial statement that are available on Bursa Malaysia Berhad website's database. This is a cross sectional study where the data obtained focus only on the year of COVID-19 pandemic in which the time frame is from 1st of January 2020 to 31st December 2020.

Variable Measurements

Dependent Variable

In this study, firm performance is the dependent variable which is measured using Return on Asset (ROA). ROA is a measurement on how beneficial an organisation is compared with its overall asset or in other words it is the indicator of how profitable a firm is in relation to its total assets. Through ROA, it assists internal and external stakeholders of the firm to get an idea on how efficiently a firm generates their earnings by using their assets. ROA is measured by dividing total income with total assets (Donadelli et al., 2014).

Independent Variables

In this study, the three independent variables are, the board size, board independence and gender diversity. Board size refers to the number of directors who are presiding over the board (Cheng, 2008). This includes outside directors, executive directors and non- executive directors. Board size is measured by the total number of directors in the board (Cheng, 2008). Board independence refers to the condition in which the majority or all of the members of a board of directors do not have a relationship (being independent) with the company except as directors (Donadelli et al., 2014). For example, the members of the board cannot be relatives of the company's personnel, cannot be the key players or the employees of the company. Board independence is measured by the number of independent directors in the board (Pan et al., 2016). Gender diversity refers to the presence of female directors in the firm. Gender diversity is measured by using dummy measurement, one (1) indicates at least one female director exist in the board while zero (0) indicates no female director exist in the board (Rashid, 2018). CEO duality is measured by using dummy measurement, two (1) indicates the CEO holds dual position in the board while one (0) indicates the CEO only holds one position in the board (Boyd, 1995). The table 3.1 below summarized the measurement of dependent and independent variables of the study.

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Table 3.1
Measurement of Variables

Variables	Measurement	Citation
Return on Asset (ROA)	Total Revenue/Total Asset	Donadelli et. al. (2014)
Board Size (BSIZE)	Number of board members	Cheng (2008)
Board Independence (BIND)	Number of independent board members	Pan et. al. (2016)
Gender Diversity (GDIV)	Using dummy measurement: 1 no female director 0 has female director	Rashid (2018)
CEO Duality (DUAL)	Using dummy measurement: 1 no CEO Duality 2 CEO Duality	Boyd (1995)

Results and Discussion
Descriptive Analysis
This analysis used to examine the quality of data collected before more advance analysis such regression analysis is conducted. Descriptive analysis will determine the normality of the data whether the collected data falls within the trends or in other words the patterns might fulfil every condition of the data. In addition, the descriptive analysis will help to detect if there are any outliers within the data, the variable similarities and provide conclusion from the data distribution. The Table 4.1 below shows the result of descriptive statistics of dependent variable that is firm performance measured by Return on Asset (ROA), independent variables consist of corporate governance mechanisms which are proxied by Board Size (BSIZE), Board Independence (BIND), Gender Diversity (GDIV) and CDUAL (CEO Duality). In this study, the elements of the descriptive statistics were calculated based on the data for the year of 2020 and total of 53 public listed construction companies.

Table 4.1
Descriptive Statistics

	N	Minimum	Maximum	Mean	Standard Deviation	Variance
ROA	53	2.53	137.11	41.05	28.618	819.017
BSIZE	53	4	11	7.49	1.694	2.870
BIND	53	0.30	1.00	0.52	0.139	0.019
GDIV	53	0	1	0.75	0.434	0.189
CDUAL	53	0	1	0.25	0.434	0.189

ROA (Return on Asset), BSIZE (Board Size), BIND (Board Independence), GDIV (Gender Diversity), CDUAL (CEO Duality)

Based on the analysis, the mean value explains the average number of each variable being calculated from total of 53 public listed construction companies. First of all, from the mean value, the average performance of 53 public listed construction companies (ROA) is 41.05%. Next, the average number of board size (BSIZE) is 7.49 which means that the 53 public listed companies have average of 7 members in their board. The average number of board independence (BIND) is 0.52 which means that the 53 public listed companies consist of average ratio of 0.52 independent directors to total directors in their board. The average number of gender diversity (GDIV) is 0.75. This finding shows that 40 companies from the total sample of 53 public listed companies have female director in their board (0.75 x 53 = 39.75@40). Next, the average number of CEO Duality (CDUAL) is 0.25 means that 13 companies from the total sample of 53 public listed companies have CEO duality (0.25 x 53 = 13.25@13). Furthermore, the minimum and maximum value of the data collected from 53 public listed construction companies shows that the ROA has maximum value of 137.11 and minimum value of 2.53, the board size has maximum value of 11 and minimum value of 4, the board independence has maximum value of 1.00 and minimum value of 0.30, the gender diversity has maximum value of 1 and minimum value of 0.

Normality Test
The normality of data can be explained by observing at the skewness and kurtosis tests. Thus, the tests for each variable in this study are; firm performance of construction companies (ROA), Board Size (BSIZE), Board Independence (BIND), and Gender Diversity (GDIV) are being presented in Table 4.2. If the skewness value is close to zero, whereas the kurtosis value does not exceed 3.0, a normal distribution of data is assumed. As the following Table 4.2 indicates, the range of skewness value is from - 1.219 to 1.321, whereas all the variables' kurtosis range between -0.536 to 1.751. As such, all the variables are having a slight skewness as well as kurtosis. This is because the values of skewness and kurtosis fall within the acceptable range. As a result, a normal distribution of data is assumed.

Table 4.2
Normality Test

	Mean	Standard Deviation	Skewness	Kurtosis
ROA	41.05	28.618	1.321	1.751
BSIZE	7.49	1.694	0.165	-0.706
BIND	3.85	1.045	0.667	1.691
GDIV	0.75	0.434	-1.219	-0.536
CDUAL	1.25	0.434	1.219	-0.536

ROA (Return on Asset), BSIZE (Board Size), BIND (Board Independence), GDIV (Gender Diversity), CEO DUALITY (CDUAL)

Regression Analysis
An analysis of multiple regression is carried out to examine the relationship between corporate governance mechanisms that are the board size, the board independence, gender diversity AND CEO Duality (independent variables) and firm performance (dependent variable). In other words, this analysis tested the hypotheses developed earlier as discussed in Section Two. Table 4.3 displays this study's overall regression analysis findings.

Table 4.3
Multiple Regression

Variables	Standardised coefficient	Std. Error	t-stat	p-value
Constant		10.754	1.881	0.066
BSIZE	-0.007	2.753	-0.282	0.780
BIND	0.267	0.059	1.713	0.093*
GDIV	0.201	1.315	1.482	0.145
CDUAL	-0.097	9.436	-0.679	0.501
R	0.369^a			
R^2 (Adjusted R^2)	0.045			
F-statistic (p-value)	0.213			
Durbin Watson statistic	2.053			

Dependent Variable: Firm performance (ROA)
Note: Significant at 10% (*)

The value of adjusted R^2 shown in the table is 0.045, which indicates that 4.5% of the variation within the firm performance could be described by the board size, the board independence, gender diversity and CEO duality. In addition, the Durbin Watson value shows that it is close to 2 which is 2.053, indicating non-problematic correlations of the residual, especially multicollinearity problem. From the analysis in Table 4.3, the board size indicates an insignificant negative relationship with firm performance when the coefficient for Board size is 0.007, t = -0.282, p = 0.780. As a result, H1 is not being supported. Accordingly, from this study that the board size does not significantly affect performance of the companies that help to maintain firm performance of Malaysian public listed construction firms during pandemic COVID-19. The result shows that board independence has a positive significant relationship with the firm performance since the coefficient value is has a significant positive relationship with the firm performance since the coefficient value is 0.267, t = 1.713, p = 0.093. Thus, H2 is supported. Gender diversity reveals a weak positive insignificant relationship with firm performance with the coefficient value of 0.201, t = 1.482, p = 0.145. This had therefore not supported H3. As being portrayed in Table 4.3 above, the result demonstrates an insignificant negative relationship between CEO duality and firm performance since the value of coefficient is -0.097, t = -0.679, p = 0.501. Thus, H4 is not supported.

Discussion and Conclusion

This study aims to examine the impact of corporate governance mechanisms; the board size, the board independence, the gender diversity and the CEO duality on the firm performance of Malaysian public listed construction firms during COVID-19 pandemic. In this regard, H1 proposed that there is a positive relationship between the board size and firm performance, implying that with more members on board will increase the firm performance of the company. From the analysis in Table 4.3, the board size indicates an insignificant negative relationship with firm performance. As a result, H1 is not being supported. Accordingly, this study evidenced that the board size does not significantly affect performance of the companies that help to maintain firm performance of Malaysian public listed construction firms during COVID-19 pandemic. The result implies that if a board has higher number of members, the performance of the company will decrease thus resulted in the bad firm performance of the company.

This finding is consistent with previous study that found out high number of members in the board will resulted in ineffective firm performance. This is due to the CEO can easily perform on his personal interest rather than shareholders' interest (Alqatan et al., 2019). Furthermore, Merendino and Melville (2019) stated that larger board is ineffective as the new ideas are difficult to be brought forward in a large number of directors and the monitoring process will be less functioning. The possible explanation of the negative association between the board size and the firm performance is that the larger number and the diversity of the board of directors will increase the issue of coordination and communication (Merendino and Melville, 2019). Not only that, the poor coordination among directors will resulted to passive decision-making process and delay in transfer of information. In addition, Assenga et.al (2018) suggested for small board size in which it will strengthen the effectiveness of the decision making. The empirical evidence suggests that the board should have a least number of members or set optimal number of board size of a company. Since the result reflect negative relationship between the board size and firm performance, which indicates that the lesser the number of people in the board, the higher the performance of the company thus enhance firm performance of Malaysian public listed construction firms during COVID-19 pandemic.

The second objective of this study is to investigate the relationship between the board independence and the firm performance of Malaysian public listed construction firms during COVID-19 pandemic. Thus, H2 proposed that there is a positive relationship between board independence and firm performance, implying that the high number of independent directors in the board will indicate high performance of the company. The result shows that board independence has a significant positive relationship with the firm performance. Thus, H2 is supported. This finding is consistent with prior literature such as the study by Huang et al (2008) indicate a significantly positive reactions to the appointment of outside directors that are evidenced by cumulative abnormal returns reaching 4.776 percent when examining stock market reactions to the announcement of outside director appointments in Taiwan. Meanwhile, a study by Uzun et al., (2004) shows that firms with a higher proportion of non-executive directors have better governance in terms of having fewer fraud allegations and firm performance. Furthermore, Hussain et al., (2018) stated that a greater portion of independent directors on a BOD is associated with higher environmental and social performances.

The third objective is to analyse the relationship between the gender diversity and the firm performance of Malaysian public listed construction firms during COVID-19 pandemic. It is proposed in H3 that there is a positive relationship between gender diversity and firm performance, meaning that existence of female directors will increase performance of the company. Gender diversity reveals a weak positive insignificant relationship with firm performance. This had therefore not supported H3. This finding supported Burgess and Tharenou (2002) stated that board should recruit female directors in order to diversified views and opinions in the board and to complement the incompetent male directors. Matsa and Miller (2013) found that female directors give less attention towards power and achievement, but female directors are more concern to issue related to stakeholders' wealth. There are few past studies that supported the notion of gender diversity in which involvement of female directors on board has positive relationship with the performance of the company (see e.g., Adam and Ferreira, 2009; Canyon and He, 2016). In addition, Adam and Ferreira (2009) highlighted that female directors have significant effect towards the board's corporate governance. This is because female directors put extra effort in monitoring process of the company as compared to male directors. In contrast, there are few studies justified on the insignificant relationship between gender diversity and firm performance (Brahma et al., 2021; Ahmadi et al., 2018; Charles et al., 2018). Board with more gender diversity resulted in increasing the agency costs thus reduce the firms' performance (Brahma et al., 2021). A study by Ahmadi et al (2018) found out that female directors will generate lower outputs as compared to male directors. Furthermore, board that implements the gender diversity concept found out that it is more difficult to solve few issues and time consuming to come out with solutions thus make it less efficient (Charles et al., 2018).

Finally, the fourth objective of this study is to analyse the impact between the CEO duality and the firm performance of Malaysian public listed construction firms during COVID-19 pandemic. H4 proposed that there is a positive relationship between the CEO duality and firm performance, assuming that if the CEO of the company holds more than one position in the board, the performance of the company will increase. As being portrayed in Table 4.3 above, the result demonstrates an insignificant negative relationship between CEO duality and firm performance thus, H4 is not supported. This finding implies that if the member of the board holds dual position which are CEO position and Chairman of the Board at the same time, the performance of the company will be lower, thus resulted in bad firm performance of the company. Result is also consistent with Jermias and Gani (2014) that found a negative association between CEO duality and firm performance it is not easy for one individual to cater the duties as chairman and CEO at the same time. Furthermore, Haniffa and Hudaib (2006) stated that separating both position of CEO and chairman resulted to better performance of the company. In addition, the separation of the position between CEO and board Chairman will increase the independence of the management (Michelon and Parbonetti, 2012). Jermias and Gani (2014) highlighted that it is crucial to separate the chairman and the CEO position of the board because CEO has the power for decision making but CEO has no control towards the shareholders' capital thus it is observed that the CEO will not act in the best interest of the shareholders.

The current finding also consistent with the study by Bhuiyan (2015) found out that company that exercise CEO duality concept has more problems with the directors on the board. Therefore, by separating the roles of chairman and CEO will then separate the control decision and managerial decision thus justify the clear direction of the firm (Conheady et al., 2014). Moreover, White and Ingrassia (1992) stated that application of CEO duality will resulted in bad performance of the company because in the event of CEO act at his own interest by using the shareholders' wealth, the board of director are not able to dismiss the CEO position. It is believed that CEO are not able to practice the role of chairman if the company applied the CEO duality concept (Jensen, 1993). Therefore, organisations may avoid from appointing one person for a dual position. The dual position of CEO and chairman of the board must be from two different individuals, therefore the actions will increase the performance of the company and ensure the firm performance of Malaysian public listed construction firms during pandemic COVID-19.

All in all, the insignificant relationship between the corporate governance mechanisms; board size, gender diversity and CEO duality on the firm performance of Malaysian public listed construction firms during COVID-19 pandemic portray that corporate governance mechanisms do not have significant influence towards the firm performance of Malaysian public listed construction firms during the pandemic. This is because the COVID-19 pandemic is an unprecedented situation which cause a sudden economic crisis that happen without being predicted in which most of the industries has been badly affected. Thus, the current measurements of corporate governance mechanisms unable to demonstrate the influence of corporate governance to the firm performance of Malaysian public listed construction firms during pandemic COVID-19. Therefore, Khatib and Nour (2021) has suggested that firms have to improve the corporate governance mechanisms and invent new programs to mitigate the current crisis. In example, firm recommended to design new technologies, executive compensation plans and other possible initiatives relevant to new business reality.

Findings of this study therefore is beneficial for the government, organisations and academicians. Government body such as the Securities Commission Malaysia (SC) which is dedicated towards promoting the internalisation of good governance amongst companies in Malaysia may benefit from findings of the current study. This study provides empirical evidence on the corporate governance mechanisms that affect firm's performance particularly during the COVID-19 pandemic. Therefore, the SC could identify the corporate governance mechanisms that give impact to the construction firms' performance during the pandemic and thus, suggest for the revision of the Malaysian Code on Corporate Governance (MCCG) in order to make it relevant based on the current economic condition and fit to the other global corporate governance framework. In the other hand, based on the finding of this study, organisations use them as a monitor, assess and improve their current corporate governance practise of their company. As referred to the result of the study in its specific, organisations may look into each mechanism of corporate governance which are the board size, the board independence, the gender diversity and CEO duality. Finally, the findings of the study will give benefit to the academicians in which it will assist and complement the current literatures for future research. It will also increase the understanding on the relation on how corporate governance mechanisms may help and affect the firm performance.

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