ADOPTION OF CORPORATE GOVERNANCE BEST PRACTICES AND EXISTENCE OF COMPLIANCE COMMITTEE AFFECTING COMPANY PERFORMANCE: THE CASE OF TOP 100 MALAYSIA LISTED COMPANIES.

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## DECLARATION

I hereby declare that:

- (1) This Research Project is the end result of my own work and that due acknowledgement has been given in the references to all sources of information be they printed, electronic, or personal.
- (2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.
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# LIST OF ABBREVIATION

AC	Audit Committee
BCBS	Basle Committee on Banking Supervision
BOD	Board of Directors
BS	Board Size
BURSA	Bursa Malaysia Berhad
CARE	Comprehend, Apply and Report
CEO	Chief Executive Officer
CEOD	CEO Duality
CG	Corporate Governance
CLERP 9	Corporate Law Economic Reform Programme 9
COVID-19	Coronavirus Disease 2019
CSR	Corporate Social Responsibility
DV	Dependent Variable
ECC	Existence of Compliance Committee
ED	Executive Director
EVA	Economic Value Added
FAM	Faculty of Accountancy and Management
FCCG	Finance Committee on Corporate Governance
FEM	Fixed Effects Model
FY	Financial Year
GLC	Government-Linked Companies
HLM	Hierarchical Linear Modelling
ICDM	Institute of Corporate Directors Malaysia
ID	Percentage / Number of Independent Directors
IDAC	Proportion / Number of Independent Audit Committee Members
INED	Independent Non-Executive Director
ISS	Implicitly Stratified Sampling
IV	Independent Variable
KPI	Key Performance Indicator

LOE	Loss on Equity
MCCG	Malaysian Code on Corporate Governance
МСО	Movement Control Order
MICG	Malaysian Institute of Corporate Governance
MLR	Multiple Linear Regression
MMLR	Main Market Listing Requirements
MSWG	Minority Shareholders Watchdog Group
NED	Non-Executive Director
OC	Ownership Concentration
OECD	Organization for Economic Cooperation and Development
PLC	Public Listed Companies
PSM	Propensity Score Matching
P-Value	Probability-Value
REIT	Real Estate Investment Trust
REM	Random Effects Model
ROA	Return of Asset
ROE	Return of Equity
R-Squared	Coefficient of Determination
S&P 500	Standard and Poor's 500
SC	Securities Commission
SEM	Structural Equation Modelling
SGX	Singapore Stock Exchange
SOA 2002	Sarbanes-Oxley Act of 2002
TQ	Tobin's Q
TSR	Total Shareholder Return
UK	United Kingdom
US	United States
UTAR	Universiti Tunku Abdul Rahman
WD	Percentage / Number of Women Directors

# PREFACE

The subject of corporate governance has always fascinated me since my undergraduate days in Bachelor of Commerce (Hons) Accounting, where I had the opportunity to study a paper on Corporate Governance. My interest in this subject only grew stronger as I continued to study it in ACCA P1 Governance, Risk & Ethics, and now in my Master's in Business Administration (Corporate Governance). I was given an opportunity to learn various research methodologies in this thesis, including secondary data research and panel data analysis, which are distinct from what I had learned in my Bachelor of Commerce (Hons) Accounting.

This thesis project examines the corporate governance practices in Malaysia. Corporate governance is a dynamic and evolving field that requires ongoing research and analysis. This study on corporate governance practices in Malaysia is just one piece of the puzzle, and there is much more work to be done to fully understand and improve corporate governance practices both in Malaysia and around the world. By contributing to the body of research on this topic, this study will help pave the way for future researchers and academics to build upon this foundation and continue to drive progress in the field of corporate governance.

Through this research, stakeholders including companies, investors, and regulators can gain valuable insights into the current state of corporate governance practices in Malaysia. By using this information to make informed decisions and take measures to improve governance practices, these stakeholders can help drive positive change and improve corporate accountability and transparency.

Overall, this research has the potential to make a significant contribution to the field of corporate governance, both in Malaysia and beyond. With continued research and analysis, researchers can work towards improving corporate governance practices and building a more sustainable, responsible, and ethical business environment for all stakeholders.

# ABSTRACT

**Purpose** - This study aims to investigate the effects of corporate governance (CG) best practices on the performance of the top 100 PLCs in Malaysia.

**Design/methodology/approach** - The design of this study is quantitative and longitudinal, using panel data analysis and descriptive analysis. Data is collected from companies' annual reports and Refinitiv Terminal for the period of FY2013 to FY2021. The target population is companies listed on BURSA's Main Market, and the sample consists of the top 100 PLCs in Malaysia with the largest market capitalization as at 31 December 2022. A stratified sampling technique is employed, resulting in a sample size of 900 firm-observations representing nine financial years of 100 companies.

**Findings -** The findings of the study reveal that the adoption of CG practices among the top 100 PLCs in Malaysia is decent, although there is still some room for improvement in certain areas, such as gender diversity and the establishment of a compliance committee. Additionally, study's panel data analysis yielded insightful results, revealing a significant negative relationship between ID-ROE, ID-TQ, OC-TSR, and ECC-ROE, while demonstrating a significant positive relationship between WD-TQ. However, the IVs such as CEOD, IDAC, and BS were found to have insignificant impacts on company performance. Thorough discussion on the findings were provided in Chapters 4 and 5.

**Originality/value** - The study's findings have managerial and theoretical implications that can be of value to policymakers, managers, investors, and other stakeholders interested in improving CG practices and enhancing company performance. The study highlights the need for regulatory bodies and companies to take an active role in promoting gender diversity, achieving a well-balanced composition of their board of directors, and considering the potential benefits of compliance committees. Theoretical implications suggest that the relationship between CG best practices and company performance may be more intricate than previously understood, and future research is needed to explore alternative factors that may influence this relationship.

# CHAPTER 1

# **INTRODUCTION**

# **1.0 Introduction**

This study aims to reiterate and provide further insights on the adoption of corporate governance ("CG") best practices towards company's performance. An outline of this research is presented in Chapter 1. Firstly, research background clarified the overview of the current landscape in CG. issues identified in previous research, leading to the formulation of research objectives and questions. Furthermore, the significance of the study emphasizes its crucial importance, followed by the conclusion of Chapter 1 with a chapter outline that provides an overview of the subsequent chapters' contents.

# **1.1 Research Background**

This section discussed the background of this study to provide preliminary understanding of the context of this research as well as the chronologies of the development of CG from international level all the way down until focusing on the Malaysia context.

#### **1.1.1 Definition of Corporate Governance**

CG emerged around the 1980s (Tricker, 2019). There is no universal way to define CG concept. It can be referring to a system that control the exercise of power over entity, outlining the processes and structures associated with strategic decision making of the corporate (Erena et al., 2022; Melis, 2004). It can also be understood as a set of mechanisms by which corporate is controlled and directed in order to achieve the organizational mission (Djan & Mersland, 2022). In Malaysia, according to Malaysian Code on Corporate Governance ("MCCG") 2021, CG is defined as the structure and process utilised to manage and direct the businesses of the corporation in the direction of promoting corporate accountability and business prosperity with the ultimate goal of maximize sustainable shareholder wealth without omitting the interest of other stakeholders (Securities Commission Malaysia, 2021b).

#### **1.1.2 Scandal and Corporate Governance (Worldwide)**

In recent years, the essential of CG have received tremendous public and regulatory attentions (Kingo, 2015). Poor CG of high-profile corporations can lead to economy wide-effect in both developing nations and industrial nations. For instance, accounting fraud to boost profits (MCI WorldCom, Inc), managerial corporate malfeasance (Tyco International Limited), corporate collapses (Enron Corporation), audit fraud (Arthur Andersen LLP) as well as countless inflated reports of stock performance have led to disasters of investor trust, followed by declination in stock market valuation, subsequent ripple effects throughout the broader economy, resulting in a slowdown in economic growth (Claessens, 2006). For example, due to the increasingly lack of investors' confidence occasioned by the sudden financial collapse of Asil Nadir's Polly Peck consortium and Wallpaper Group Coloroll, United Kingdom ("UK") has come out with the Cadbury Report 1992 followed by Greenbury Report 1995 and et cetera as a code of CG for its corporation to follow (Mwanja et al., 2014).

Due to the importance of CG, many countries have started paying significant attentions towards CG. For example, in United States ("US"), the enactment of Sarbanes-Oxley Act of 2002 ("SOA 2002") was prompted by the demise of MCI WorldCom, Inc and Enron Corporation (Pan et al., 2018). Besides, after the corporate scandals of HIH Insurance Limited, Harris Scarfe Limited and One.Tel Limited, Australia has taken several responses to strengthen the CG practices of corporations in Australia such as Corporate Law Economic Reform Programme 9 ("CLERP 9") and establishment of CG Council by Australian Stock Exchange (Robins, 2006). In Italy, there have been many changes to the code of CG after the scandal of Parmalat Group which involve governance failure linked to conflict of interest (Bava & Devalle, 2012).

## 1.1.3 CG Development in Malaysia

In Malaysia, attention to CG has emerged since the aftermath of 1997 Asian financial crisis (Ishak & Omar, 2010). Such crisis exposed numerous poor CG practices in Malaysia such as allegations of cronyism (Johnson & Mitton, 2003); lack of transparency and accountability in financial disclosure (Mitton, 2002); over-leveraging (Fraser et al., 2006); deficient legal protection on minority shareholders against expropriation (Claessens et al., 1999) and et cetera. As a result, Malaysia regulators has established Finance Committee on Corporate Governance ("FCCG") which launched the MCCG and established Minority Shareholders Watchdog Group ("MSWG") during the year 2000 (Wahab et al., 2007).

The national code of CG in Malaysia if following a hybrid model which heavily influenced by UK CG models (Tariq et al., 2022). The MCCG is applying the "Comprehend, Apply and Report ("CARE")" approach (Securities Commission Malaysia, 2021b). This approach is generally known as "comply-or-explain" regime as opposed to hard regulations such as the SOA 2002. This voluntary regime provides MCCG for Malaysian companies to comply. However, if the company doesn't comply, then such company is required to state in its annual report the reason of noncompliances (Orihara & Eshraghi, 2022).

Recently, the Securities Commission ("SC") of Malaysia has issued the latest version of MCCG to introduce fortified best practices. This MCCG 2021 was effective from 28 April 2021 and the first batch of reporting were those companies with financial year ("FY") ending 31 December 2021 (Ernst & Young Malaysia, 2021).

In fact, in recent years, there are better improvements of CG practices in Malaysia compared to other nations such as Singapore, Korea, Japan et cetera (Nasir & Hashim, 2021). Besides, it is widely researched and documented that best practices exist at firm level is crucial for the company performance (Ahmet et al., 2022; H. M. Amin et al., 2021; Erena et al., 2022). However, study also shows that the agency conflicts exist in hybrid models implemented by Malaysia may weaken the association between CG and company performance (Mendoza-Velázquez et al., 2022). Thus, there is a room for further investigation and it is worth to carry out research on the correlation between CG best practices and the company performance in Malaysia context.

# **1.2 Problem Statement**

As stated by Soei et al. (2019), sound CG has become a crucial matter since the 1997 Asian Financial Crisis. Although extensive researches have been conducted since the establishment of MCCG in 2000, but correlation between CG and company performance still remains controversial. On one hand, some researchers concluded that sound CG is having a significant relationship with better company performance in numerous ways (Georgakopoulos et al., 2022; Pathak et al., 2022; Sheikh & Alom, 2021). For instance, Xu et al. (2022) concluded that CG affects company performance, partially mediated by the corporate social responsibility ("CSR") performance. Boachie and Mensah (2022)'s research findings display the positive influences of earning management on the company financial performance

tends to be stronger in the existence of sound CG. Moreover, significant positive association between CG and firm performance is also found in the research carried out by Shahwan and Fathalla (2020) which has included intellectual capital as a mediator.

However, on the other hand, there are also researchers discovered that robust CG does not necessary affect a company performance (Abueid et al., 2021; Fallatah, 2012; Karima, 2016). For example, in a study addressing listed construction companies in Malaysia, CG was concluded as having insignificant impact on the company performance (Hussain & Hadi, 2019). Therefore, the existing scholarly literature has yet to provide conclusive evidence regarding the correlation between CG and corporation performance

Furthermore, the influences of best practices on company performance appears to vary depending on which specific best practices are utilized as a proxy for CG. For instance, in the research carried out by Mohamad et al. (2020), the association of CG and company performance is significant if ratio of NED and board size are used as proxy of CG, but insignificant when ownership concentration was used as proxy of CG. In contrast, study carried out by Shao (2019) concluded that relationship between CG and company performance is insignificant when proxy of CG used was board size and significant when proxies of CG used were ownership concentration, CEO duality, managerial ownership, state ownership and supervisory board presence. Furthermore, in research carried out by Shahzad et al. (2022), two out of three CG proxies namely CEO duality and board size demonstrate a negative correlation with firm performance while size of audit committee ("AC") has a direct impact on the organizational performance.

There are also numerous types of measurement used as proxy or proxies in measuring company performance such as return on equity ("ROE") (Alshirah et al., 2022), return on asset ("ROA") (Mititean, 2022), Tobin's Q, economic value added ("EVA"), total shareholder return ("TSR") (Pintea et al., 2021), earnings per share ("EPS") (Kabir et al., 2021) and et cetera. Hence, further studies are warranted to reaffirm and further explore the relationships between CG and company performance, particularly when employing different proxies.

Although there are numerous researches conducted have focused on the impacts of CG on firm performance both at national (Adedeji et al., 2020; Erena et al., 2022; M. M. Rashid, 2020; Sanan et al., 2021) and multi-national levels (Aslam & Haron, 2021; Maranho & Leal, 2018). However, different regimes, laws, rules and regulations between nations have led to different measurement of CG quality (Jesuka & Peixoto, 2022). Thus, to establish the relationship between CG and firm performance within a national context, further research is necessary, specifically investigating various countries. Accordingly, this study was conducted to examine the linkage between CG and company performance within the context of Malaysia.

Numerous studies have been undertaken in various contexts to scrutinize the correlation between CG and firm performance. For example, the timeframe of those researches conducted in Malaysia are different. Abdulsamad et al. (2018) conducted research on a sample of 341 publicly listed companies ("PLC") in Malaysia during the timeframe of 2003-2013. Mohamad et al. (2020) carried out study by sampled 180 PLCs in Malaysia for period ranging from 2013 to 2017. There are also researchers used 188 Malaysian non-financial firms to conduct a study within the period of coronavirus disease 2019 ("COVID-19") pandemic namely 2019 – 2020 (Khatib & Nour, 2021). Hence, there is a need to conduct further researches on causality of CG and firm performance in latest timeframe, especially including the period after April 2021 as the latest version of MCCG 2021 has effective (Ernst & Young Malaysia, 2021).

In addition, the studies conducted to investigate relationship between CG and firm performance in Malaysia may different in term of target population. There are studies conducted with sample consisting of government-linked companies ("GLC") from both Malaysia and Singapore (Chang et al., 2021; Ng et al., 2021). There are also researches sampled only Real Estate Investment Trust ("REIT") to probe the correlation between CG and organization's performance (Ramachandran et al., 2018). There even study conducted focused on unlisted small and medium enterprises ("SME") to research on similar context (Abor & Biekpe, 2007; Arosa et al., 2013; la Rosa & Bernini, 2018).

According to agency theory, larger companies having greater quantity of shareholders, therefore tend to be associated with greater agency problems (Baatwah et al., 2021; Jensen & Meckling, 1976). Larger companies are having greater information asymmetries and more difficult to monitor, therefore need to compensate with stricter governance mechanisms which leads to a greater level of agency costs (Anh et al., 2020; Khanchel, 2007). Thus, studies focus on top ranked PLCs in Malaysia are needed. For instance, Zabri et al. (2016) have carried out research regarding CG and company performance on top 100 companies listed in Bursa Malaysia Berhad ("BURSA"). Nonetheless, such research covered only the period from 2008 to 2012. Given that the causality relationship between CG and firm performance may be subject to volatility and change over time, additional research is imperative, particularly covering more recent periods, to reaffirm the findings of previous studies, identify any changes in causality, and yield supplementary insights.

On the other hand, the compliance committee plays a imperative role in overseeing a organizational performance with regards to legal and regulatory risks, as well as ensuring the implementation and maintenance of the company's code of conduct (Gutterman, 2020). However, limited studies addressing CG have include the existence of compliance committee as a construct affecting the company performance (Amine, 2018; Bannier et al., 2019; Cunha et al., 2022). Therefore, it is crucial to address this research gap by incorporating the existence of a compliance committee as one of the independent variables ("IV") that could potentially impact company performance.

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# **1.3 Research Objectives**

To address the research problems, the following objectives were established.

## **1.3.1 General Objective**

This study aims to investigate the effects of corporate governance best practices on the performance of the top 100 public listed companies in Malaysia. To achieve this overarching objective, the following specific objectives have been developed.

## **1.3.2 Specific Objectives**

The specific objectives outlined below have been derived from the aforementioned general objective.

- RO1: To determine whether the CEO duality has an impact on the performance of top 100 PLCs in Malaysia.
- RO2: To scrutinize the influence of board independence towards the performance of top 100 PLCs in Malaysia.
- RO3: To examine the impact of women towards the performance of top 100 PLCs in Malaysia.
- RO4: To analyse the impact of independent audit committee towards the performance of top 100 PLCs in Malaysia.
- RO5: To investigate the implication of ownership concentration on the performance of top 100 PLCs in Malaysia.
- RO6: To evaluate the effect of board size on the performance of top 100 PLCs in Malaysia.
- RO7: To inspect whether the existence of compliance committee has an impact on the performance of top 100 PLCs in Malaysia.

# **1.4 Research Questions**

The research questions presented below are derived from the research objectives.

## **1.4.1 General Question**

Do CG best practices affect the performance of the top 100 PLCs in Malaysia? To answer this general question, the following specific questions are raised.

## 1.4.2 Specific Questions

- RQ1: Is there any significant correlation between CEO duality and performance of top 100 PLCs in Malaysia?
- RQ2: Does board independence significantly affect the performance of top 100 PLCs in Malaysia?
- RQ3: Does board gender diversity significantly affect the performance of top 100 PLCs in Malaysia?
- RQ4: Does independent audit committee significantly affect the performance of top 100 PLCs in Malaysia?
- RQ5: Does ownership concentration have a significant relationship with the performance of top 100 PLCs in Malaysia?
- RQ6: Does board size significantly influence the performance of top 100 PLCs in Malaysia?
- RQ7: Is there any significant relationship between existence of compliance committee with company performance of top 100 PLCs in Malaysia?

# **1.5 Significance of the Study**

Although there have been numerous studies examining the relationship between CG and company performance, CG is a broad and multifaceted discipline that warrants further research. Consequently, this study is of significant importance and has made several notable contributions, including:

## **1.5.1 Theoretical Significance**

Theoretical significance is referring to the importance of the contribution of this research to existing theoretical knowledge and understanding in CG. This study will provide a theoretical contribution by substantiating and verifying the outcomes of previous research carried out by scholars studying the correlation between CG and the performance of firms. Moreover, this study aims to address the constraints encountered and recommendations proposed by earlier research in order to offer further insights into the field of CG. For instance, research undertaken by Zabri et al. (2016) was constrained by narrow time frame of only five years (2008-2012). Additionally, due to data unavailability, the sample size was restricted to only 86 companies. Hence, to yield more accurate outcomes, this study aims to contribute by extending the research period to the most recent nine years (2015-2021) and collecting data from the top 100 companies listed in Malaysia.

In addition, Chang et al. (2021)'s study which extracted data from the BURSA and Singapore Stock Exchange ("SGX") websites, suggested that upcoming researchers should collect secondary data from the companies' annual reports. Hence, this study has contributed to this aspect by obtaining data from the annual reports of the top 100 companies listed in Malaysia. Moreover, as this study was focused on top 100 PLCs in Malaysia irrespective of the industry, thus the result will be more representative and inclusive of multiple sectors as a respond to the recommendations for future research made by Lim and Kassim (2022).

Apart from that, Maama et al. (2019) has stated in their study regarding CG and firm performance that future research should expand to other emerging economies. Malaysia is an emerging economy facing various type of CG malpractice (Altarawneh et al., 2022). Hence, the focus of this study was narrowed down to examining the effects of CG best practices on the performance of the top 100 PLCs in Malaysia. By doing so, this study aims to address the knowledge gap between CG best practices and firm performance, specifically in the context of Malaysia.

On the other hand, most of the researchers studied on board committee and firm performance are focusing on AC (Shrivastav, 2022), remuneration committee (Harymawan et al., 2020), nomination committee (Chaudhry et al., 2020), investment committee (Eulaiwi et al., 2021) and risk management committee (Ghazieh & Chebana, 2021). There are limited study addressing compliance committee and firm performance (Cunha et al., 2022). Upon conclusion of this research, the existing literature on the relationship between the presence of a compliance committee and company performance will be enriched with new evidence and insights.

Furthermore, traditionally, multiple linear regression ("MLR") analysis was applied to investigate multivariate relationship between CG best practices and firm performance (Kyere & Ausloos, 2021; Soewignyo et al., 2021). There are less study applying panel data analysis in researching relationship between CG best practises and firm performance (Chang et al., 2021; Ng et al., 2021). This study holds theoretical significance as it employs panel data analysis, which is a widely used form of longitudinal data analysis and is preferred over cross-sectional and time series analysis due to its superior analytical capabilities (Edward, 2004; Singh, 2016).

## **1.5.2 Managerial Significance**

Managerial significance refers to the practical implications and applications of findings of this study for managerial decision-making and practices. In a report named "CG Strategic Priorities 2021-2023" issued by Securities Commission Malaysia (2021a) indicates that one of the strategic initiatives of the SC is to further collaborate with universities on the academic research of CG issues to augment the empirical evidence in relation to CG. Therefore, this study is having managerial significance as the findings of this research would support the SC in term of developments of future CG policies and measure. In view of the introduction of MCCG 2021, this research would provide an insightful review to the regulators on whether the current CG best practices are persuasive to explain firm performance of Malaysia PLCs. Thus, the outcomes of this study are going to allow the regulators to finetune the legislation frameworks and enhance the landscape of Malaysia CG.

This study sheds light on the persuasiveness of CG best practices in explaining better company performance. The results will aid in promoting the significance of implementing CG best practices among both large companies and SMEs in Malaysia. This would assist Malaysian companies to avoid the "tick-box" approach of CG implementation which often end up with more costly and clunky consequences (Woods, 2021). Through reviewing the result of this study, the senior management and board of directors ("BOD") of the companies would be able to identify the specific CG factors best suit their companies for implementation.

Moreover, the outcomes of this study would enhance investors' comprehension of the association between CG and corporation performance, leading to better investment ideas as well as decision-making by creditors, shareholders, portfolio managers, and institutional investors. This will enable them to identify superior companies by examining the robustness of the companies' CG mechanism.

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# **1.6 Chapter Layout**

To provide a clear focus, the scope of each chapter in this study are specified below:

- Chapter 1: This introductory chapter presents the background of the study, the statement of the problem, the objective of the research, the research question, and the significance of the study. This chapter presents the rational as well as justification of carrying out the proposed research. Additionally, this chapter provides a brief overview of the major issues and sub-problems that will be examined and addressed
- Chapter 2: This chapter gives an in-depth review of literatures which deliberating the theoretical foundations, concepts and theories application of CG. This chapter critically evaluate, synthesize and integrate the existing literature information, theoretical understanding and research issues related to the research questions, key IVs and dependent variables were identified in this chapter, followed by a development of the hypothesis and formulation of research model for this study.
- Chapter 3: Methodologies that applied in this research are demonstrate by Chapter 3.
- Chapter 4: This chapter deliberating the findings of this research via descriptive analysis and panel data analysis.
- Chapter 5: This is the final chapter which presents a comprehensive summary and deliberations of the major findings obtained from the study, addresses the limitations encountered during the research process as well as provides recommendations for future research.

## **1.7 Conclusion**

To recapitulate the aforementioned, Chapter 1 has provided the background for this study, emphasizing the significance of CG in the current business landscape while highlighting the need for additional research in this field. Therefore, this research focuses on investigating the relationship between CG best practices and the performance of Malaysian companies.

# CHAPTER 2

# LITERATURE REVIEW

## **2.0 Introduction**

This chapter offers an extensive examination and evaluation of literature pertaining to the theoretical foundations, variables, and conceptual framework for the study. The review establishes the foundation for developing hypotheses and a conceptual model to explore the correlation between independent variables ("IV") and dependent variables ("DV"), specifically in relation to CG best practices and company performance.

## **2.1 Relevant Theoretical Foundation**

According to Marashdeh, Saidat, et al., (2021), there a numerous theories serve as a basis for CG discipline. These relevant theoretical foundations will be discussed further in this section.

## 2.1.1 Agency Theory

Agency theory is a comprehensive theory of the corporate ownership structure developed by Jensen & Meckling (1976). It is a theory that analyse the managerial incentive problems induced by the separation of corporate decision making and ownership (Alchian & Demsetz, 1972; Fama & Jensen, 1983; Jensen & Meckling, 1976). This theory defines the relationship between shareholders and managers as a contract between principals and agents (Kosnik, 1987). Agency relationship is created when one entity (the principal) manifests assent to another entity (the agent) that the agent has to act on the principal's behalf and subject to the principal's control (Packin & Nippani, 2022). According to agency theory, the managements will be the recipient of work from the owner and have to report the activities to the principal (Mahsuni, 2021). The principal relies on the agents for execution of specific actions such as manage the firm (Ivanov, 2022).

Agency theory is an economic theory that perceives the company as a set of contracts among self-interested individuals (Sutisna et al., 2022). Agency theory views that the agents who carries out the tasks instructed by the principal has self-interest and own will (Yoon, 2019). In the process of the company's strategic decision making, agents are selfish and being inclined to the promotion of self-interest rather than the principal's interest (David et al., 2021). According to agency theory, both principal and agents are assumed to be utility maximisers, thus there is a good reason to believe that the agents will not always act in the best interest of the principal (Jensen & Meckling, 1976; Yang et al., 2022). The gap between the agents' expected behaviour in the interest of principal and their actual behaviour is referring to "agency problem" (Eisenhardt, 1989a; Shapiro, 2005; Yang et al., 2022).

Agency theory assumes that there may be a partial different risk preferences and goal conflict between principal and agent (Zsidisin, 2022). Agency problems may occur if the objectives of principal and agent are incongruent (Matinheikki et al., 2022). Conflict of interest may also arise when the principal and agents have different risk appetite. In general, managers possess lower risk appetite in order to secure their office and welfares whereas stockholders possess higher risk appetite as they are able to diversify their risk by invest in different companies (Hu & Ali, 2020). Differences in risk appetite may lead to different actions (Eisenhardt, 1989a). When there is a conflict of interest between principals and agents of a company, agency problems occurred (Azzam & Alhababsah, 2022). Besides, another factor that led to an agency problem is due to information asymmetry. Agents have a better understanding about the company affairs because of their professional expertise and direct management power, while principals possessing limited information (Wang et al., 2021). Agency theory believes that agents may exploit this information asymmetry to drift or shirk from their obligation (Bjurstrøm, 2020). Meanwhile, it is challenging or costly for the shareholders to verify the actions of managers, therefore agency problem aroused (Goitsemang & Magang, 2019). Agency problems can be reduced through sound CG practices (Nizam et al., 2022). Companies require various kind of monitoring and control mechanisms in the form of CG best practices in order to overcome agency problems (Fama & Jensen, 1983; Saleem, 2018). Because of the agents are self-interested, thus principal shall put in place governance mechanisms to curb such opportunistic behaviour (Tajer & Araban, 2022).

Comprehensive monitoring is one way to ensure the managers act in the owner's best interest (Nikula & Kivistö, 2020). This can result in the convergence of interests between shareholders and managers, thereby reduce the opportunistic behaviour resulting from divergence of interest (Alves, 2012; Moses et al., 2020). Divergence of interest between the shareholders and managers lead to the agency costs such as the losses caused by low managerial ability, agents' compromised decision as well as bonding costs (Faisal et al., 2021). Figure 1 summarised the gist of the agency theory.

Figure 1: Agency theory



Note. Adopted from Snippert T., Witteveen, W., Boes, H., & Voordijk, H. (2015). Barriers to realizing a stewardship relation between client and vendor: the Best Value approach. Construction Management and Economics, 33(7), 569–586.

## 2.1.2 Stakeholder Theory

Freeman (1984) introduced stakeholder theory as an advancement of shareholder theory, which highly favoured the owners of the company (Sekarlangit & Wardhani, 2021). Initially, stakeholder theory emerged due to the growing awareness and understanding that the company has stakeholders (Budi, 2021).

According to stakeholder theory, the composition of company is a collection of various individual groups with different interest (de Regge et al., 2018). They include both internal and external parties who able to influenced or be influenced by the firm directly or indirectly (Freeman, 2010). These interests collectively represent the will of the company. Thus, business decisions shall take into consideration interests of these collective groups as much as possible (Waweru & Kimathi, 2022; Yakubu, 2019). Companies have to develop its corporate strategies thinking of ensuring the satisfaction of the shareholders as well as the demands from the stakeholders (Correa-Mejía, 2022; Fahad & Busru, 2021).





Note. Adopted from Silvius, G., & Schipper, G. (2019). Planning Project Stakeholder Engagement from a Sustainable Development Perspective. Administrative Sciences, 9(2), 46.

Figure 2 depicts the model of stakeholder theory. It shows a view of capitalisms that stress the interconnected relationships between a company and its employees, customers, suppliers, investors, communities and others who have stake in the company (Mhlanga & Moloi, 2020; Odeba et al., 2021). Stakeholder theory is a theory of management and business ethics which addresses morals and values in managing a company (Ajayi et al., 2021).

Stakeholder theory argues that a company shall create value for all stakeholders, not just stockholders (Inyang et al., 2022; Ndeche et al., 2021). Thus, top management is playing an essential role in meeting the demands of stakeholders for attaining the strategic objective of the company (Bui, 2021). It asserts that company must keep the interest of its stakeholders in mind in order to be successful and sustainable because stakeholders can affect and be affected by the objectives, actions and policies of the company (Khatter et al., 2021).

Stakeholder theory acknowledged the essential of different relevant stakeholders and to address their legitimate interests. Contradictory interests and claims of different stakeholders shall be balanced. Thus, CG mechanisms must explore the approaches to balance the paradox (Khan et al., 2019).

## 2.1.3 Stewardship Theory

Stewardship theory was introduced by Donaldson and Davis (1991) as an alternative theory to agency theory (Subramanian, 2018). It is a theory that roots in sociology and psychology which designed for scholars to investigate circumstances in which executives as stewards will be motivated to act in the best interest of the principals (Donaldson & Davis, 1989, 1991).

Stewardship theory is predicated on the notion that the interest of the managers (agents) to the owner (principals) are aligned (van Doel & Howell, 2022). According to stewardship theory, executives are assumed to have a

higher utility for pro-organizational and collectivistic behaviour compared to self-serving and individualistic behaviour (Feldermann & Hiebl, 2022).

Figure 3: Stewardship theory



Note. Adopted from Snippert, T., Witteveen, W., Boes, H., & Voordijk, H. (2015). Barriers to realizing a stewardship relation between client and vendor: the Best Value approach. Construction Management and Economics, 33(7), 569–586.

Figure 3 shows the model of stewardship theory. A steward will be more readily engages in altruistic, spontaneous and cooperative unrewarded corporate-citizenship behaviour, even when the corporate's interest conflict with their (Azizi et al., 2022; Chen et al., 2016). Stewardship theory views a strong relationship between managers and the company success. Thus, the stewards protect and maximize shareholders' wealth by improve company performance (Barante & Arasa, 2018; Gitonga & Miano, 2020).

The stewards always try to give more attention to the cooperation instead of defection and seeks to attain the organizational objectives (Sawalqa, 2021). Thus, according to this theory, CG mechanisms is to empower and facilitate rather than monitor and control (Aryal et al., 2022; Davis et al., 1997). Under this theory, autonomy, discretion and authority shall be maximized because the stewardship leaders can be trusted (Lubogoyi et al., 2018).

## 2.1.4 Resource Dependency Theory

Resource dependency theory was developed by Pfeffer and Salancik (1978) to elaborate how corporate's behaviour is affected by the resources it possessed. Resource dependency theory within CG emphasizes the varying functions of boards in facilitating the acquisition of resources, including skills, knowledge, information, economic resources, and guidance

necessary for achieving corporate prosperity (ben Fatma & Chouaibi, 2021; Najaf & Najaf, 2021).

## Figure 4: Resource dependency theory in CG



Note. Adopted from Madhani, P. M. (2017). Diverse Roles of Corporate Board: A Review of Various Corporate Governance Theories. The IUP Journal of Corporate Governance, 16(2), 8–28.

Figure 4 depicts the processes by which BOD are expected to influence company performance as predicted by resource dependency theory in CG. From the figure, we know that BOD is strategic to enhance corporate performance as it plays the roles of providing and securing critical resources to the company through their linkages and connections to the external environment (Habtoor, 2022b; Jude et al., 2022). According to Salem et al. (2019). Members of BOD normally engaged in network and exercising outside hyperlink that could affect company improvement process together with the corporate long-run potentialities. Hence, the integration of CG structure is expected to lead to the optimal utilization of resources, resulting in the enhancement of organizational value (Kiharo & Kariuki, 2018).

In fact, there are several modern CG best practices are formulated based on resource dependency theory. Resource dependency theory proposed that the BOD diversity is one of the main concerns of CG mechanisms. For instance, BOD shall take into consideration of gender diversity when setting-up the BOD (Rooly, 2022). According to resource dependency theory, gender diversity is a vital resource that BOD provides to ensure company efficiency (Adeabah et al., 2019). Besides, resource dependency theory opined that BOD diversified in terms of executive director ("ED"), NED, male directors and female directors in appropriate board size as well as assembled due to their wider knowledge and expertise able to network better with the external environment (Nwude & Nwude, 2021).

In addition, based on the theory, CG mechanism of having independent nonexecutive directors ("INED") is vital as it provides company with a low-cost access to external resources and social relations (Xin, 2020).

# 2.2 Review of Literature (DV)

The aim of literature review is to get collective insights via the theoretical synthesis (Akgün, 2020). It is crucial to demonstrate reliability of proposed research topic and to carve out a space for additional research needs to be tackled in this study (Parajuli, 2020).

## 2.2.1 Literature Review (DV) – Return on Equity ("ROE")

ROE is a metric that measures how much money that the shareholders made via their investment in the company (Dongol, 2021; Wondem & Batra, 2019). It is an essential financial ratio as it reflects the productivity of the owners' capital employed and represented it in percentage term (Wondem & Batra, 2019). ROE shows the ability of a company to generate net profit available to investors utilising its own capital.

Company will be valued higher if it achieved higher ROE (Siagian et al., 2020). ROE can be calculated by a simple formula where net income divided by shareholder equity:

ROE =	Net Income	Earnings After Tax and Preference Dividences	
	Shareholders Equity	Shareholders Fund	

Source: Altass (2022); Khalil and Slimene (2021)

ROE is a crucial metric in assessing what extent the investment is able to provide returns that are in accordance with the level expected by investors (Mudzakar & Wardanny, 2021). It is an accounting-based measurement that reflects a company's financial performance. ROE is a pivotal profitability ratio representing financial performance and revenue-generation capability of the company (Naeem et al., 2022). In other word, ROE shows the
management's (principal's) efficacy in maximizing the rate of return on investors (agents)'s investment (Malina et al., 2020).

As a well-known measurement, ROE has been used extensively in prior researches (Madani, 2022; Mendoza-Velázquez et al., 2022; Mititean, 2022; Ng et al., 2021; Pintea et al., 2021). Hence, in this study, ROE was used as one of the proxies of the DV to measure the performance of top 100 PLCs in Malaysia.

## 2.2.2 Literature Review (DV) – Total Shareholder Return ("TSR")

TSR is a metric of the performance of different corporation's stocks overtimes. TSR combines both dividends paid and share price appreciation to depict the total return to shareholders expressed as an annualised percentage (Harry, 2020). It factors in both dividend gains and capital gains for shareholders (Vasudev, 2021; Wenig, 2021). In other words, TSR indicates the growth in the company value for the stockholders (Jo et al., 2021).

TSR is an easily understood figure of the company's overall financial benefits generated for stockholders, it is a good gauge of an investment's long-term value (Ganti, 2021). TSR can be computed by adding together the change in year-end share prices and annual dividends, divided by the prior year-end share price (Alshorman & Shanahan, 2021; Shin et al., 2022). Thus, TSR can be calculated by the formula below:

TSR =	$Price_1 - Price_0 + Dividends$	
151 -	Price <sub>0</sub>	

Source: Makhija and Trivedi (2021)

TSR is a market-based backward-looking performance measure which reflect the judgments of the market on the company (Burney, 2018; Lakatos, 2020; Zapadka et al., 2022). It is an easy way to compare performance of similar corporation over times and it is frequently used by the companies as a key performance indicator ("KPI") to determine senior executives' compensation (Goh & Simanjuntak, 2018). TSR has become the definitive

performance measure for public companies. It is a neutral metric that captures corporation value creation and cannot be manipulated by senior executives using accounting manoeuvre (Desai et al., 2022).

In researches on CG, TSR has been widely used as a measure of company performance recent past researches (Ng et al., 2020; Pintea et al., 2021). Therefore, in this study, TSR was used as one of the proxies of the DV to measure the performance of top 100 PLCs in Malaysia.

#### 2.2.3 Literature Review (DV) – Tobin's Q ("TQ")

TQ ratio is a relative measure of company's performance which depends on both the profitability and required rate of return of financial markets (Singla & Prakash, 2021). As a ratio measuring instrument, TQ ratio defines the value of the firm, encompassing the value of both tangible and intangible assets (Domo & Utami, 2022). It describes the efficiency and effectiveness of the firm in utilising all resources in the forms of assets owned by the firms (Sumani & Suryaningsih, 2022). Fundamentally, TQ expressed the relationship between a company market value with its intrinsic value (Erasmus & Micah, 2021). To put it another way, TQ ratio is the precise measurement of a company value and a mean of forecasting whether a particular company is undervalued or overvalued (Sumatriani et al., 2021).

Higher TQ ratio scored by a company indicating higher value of the company as it reflects greater investors' confidence in the company's growth potential (Rouvolis, 2022). TQ can be calculated by market value of a firm divided by its replacement value (Okerekeoti, 2021). However, determining the replacement cost presents a formidable challenge, thus alternative formula (as below) is often used by analyst to compute TQ ratio.

TO Patio -	Market Value of Equity + Book Value of Total Debt
i Q Katio –	Book Value of Total Assets

Source: Al-Jalahma (2022); Hang et al. (2022)

TQ ratio is a market-based forward-looking measure that reveals how investors assess the company's capability to create future profit (Alfalih,

2022; Naidu et al., 2022). Thus, unlike ROE and EPS, TQ ratio is an indicator that reflects the company's future performance (Lo & Liao, 2021). Besides, TQ ratio is less sensitive to strategic manipulation of accounting earnings (Sharma et al., 2022). On the other hand, TQ ratio has been widely used in the empirical literature as a proxy for company performance (Al-ahdal et al., 2020; Farooq et al., 2022; Pintea et al., 2021). Thus, in this research, TQ ratio was used as one of the proxies of the DV to measure the performance of top 100 PLCs in Malaysia.

## 2.3 Review of Literature (IV) and Hypothesis Development

To compare the outcomes of other similar or related researches undertaken before and analyse the research gaps, a thorough review of literature on IVs will be carried out in this section (Ashish & Fazalbhoy, 2022).

#### 2.3.1 Literature Review (IV) – CEO Duality ("CEOD")

CEOD is a situation where the similar person holds both the position of BOD Chairman and CEO (Tarchouna et al., 2022). According to Practice 1.3, Principle A of MCCG 2021, the position of CEO and Chairman shall be held by different person in order to promotes accountability. CEO shall focus on the day-to-day management whereas Chairman shall lead the BOD in its collective oversight of management (Securities Commission Malaysia, 2021b). Hence, the roles of CEO and Chairman shall not be exercised by the same individual (Aladwey et al., 2022). However, in contrary to the best practices, CEOD is in fact controversial from the two contrary conflicting theoretical foundations, namely agency theory and stewardship theory (Song & Kang, 2019).

Stewardship theory argues in favour of CEOD, suggesting that CEOD provides a clear strategic direction, enhance swift decision making, reduces information asymmetry and communication conflicts (Tampakoudis et al.,

2022). However, CEOD is a source of agency problems (Eisenhardt, 1989b). Dual role CEO having legitimate power on both the BOD and top management is likely to dominate the BOD, impairing the BOD's objectivity and become ineffective in monitoring managerial opportunism (Fooladi & Farhadi, 2019; Tampakoudis et al., 2022). CEOD may promote CEO entrenchment and allow CEO to pursue self-interest at the expense of the principals (Defrancq et al., 2021; Elyasiani & Zhang, 2015).

According to the result consistent with agency theory of a recent study conducted by Khan et al. (2021) in Malaysia, CEOD was empirically proved as having negative impact on company performance because CEOD will influence the monitoring and controlling functions of the NED. Besides, similar conclusion was drawn in the study conducted by Swain and Kar (2021). Numerous studies also affirm that CEO duality has an adverse impact on company performance (Ali et al., 2022; Hsu et al., 2021; Marashdeh, Alomari, et al., 2021; Mubeen et al., 2021; Tang, 2017; Wijethilake & Ekanayake, 2019).

On the other hand, Gan and Erikson (2022) found that CEO duality can benefit young firms operating in uncertain environments, as it provides unity of command and facilitates rapid decision-making. This arrangement may also enable the CEO to exercise greater control over the board of directors and ensure the success of the business. In research conducted by Debnath et al. (2021), CEOD was found to have a positive impact on ROA, consistent with the stewardship theory. According to them, this is because CEOD reduce the probability of objective-misalignment between the CEO and the BOD because CEO in his position of a Chairman bridges the gap between the management and the BOD. Besides, duality reduce the rivalry between CEO and Chairman avoiding conflicts and confusion due to the presence of two public spokesmen (the CEO and the Chairman). There are also a group of scholars provided empirical evidence of the significant positive impact of CEO duality on company performance (Habib, 2016; He, 2021; Palaniappan, 2017; Pucheta-Martínez & Gallego-Álvarez, 2020) There are also researchers concluded that the relationship between CEOD and company performance is insignificant (Alshirah et al., 2022; Puni & Anlesinya, 2020; Shahzad et al., 2022). Given the prevalence of the debate surrounding CEOD and non-duality in practice and literature, the study formulated hypotheses to examine the relationship between CEOD and company performance in Malaysia.

#### **Hypotheses**

H1 <sub>CEODa</sub>	:	CEOD has a significant correlation with the performance of	
		top 100 PLCs in Malaysia (ROE).	
H1ceodb	:	CEOD has a significant correlation with the performance of	
		top 100 PLCs in Malaysia (EPS).	
H1CEODc	:	CEOD has a significant correlation with the performance of	
		top 100 PLCs in Malaysia (TQ).	

# 2.3.2 Literature Review (IV) – Percentage / Number of Independent Directors ("ID")

INED is a member of BOD who doesn't have a pecuniary or material relationship with the corporation or related persons, except sitting fees (Kanakriyah, 2021). He doesn't serve within the company, independent of the company's stockholders, has no professional affiliation and significant business ties with the company or its management (Li & Yan, 2021). According to Practice 5.2, Principle A of MCCG 2021, the BOD of the large companies shall comprise of majority INED to allow for more effective oversight of management (Securities Commission Malaysia, 2021b).

According to resource dependency theory, the BOD provides valuable resources which contribute to a firm's competitive advantages (Herli et al., 2021). Larger number of INED acts as an additional resource for company which afford better financial skills and will positively impact growth potential of the company as well as reduce any discrepancies in a company performance (Bird et al., 2018; Khalil & Chihi, 2020; Saravanan et al., 2021). INED as an outside director may provide company with exposure to

different corporate environment, bring diverse knowledge and perspectives to the BOD (Raithatha & Bapat, 2014).

On the other hand, stakeholder theory posits that appointment of INED to BOD provides company the chance to develop strategic policies that address broader scope of the demands and requirements of their key stakeholders (Ortas et al., 2017). INED represent the interests of diverse stakeholder groups and exert pressure to urge the company to pay attention the interests of non-financial stakeholders (Sun et al., 2021). A BOD with a substantial proportion of INED can provide better oversight on company management and protect the stakeholders' interests (Naciti, 2019). From the standpoint of stakeholder theory, appointing INED on BOD is one of the best ways to enhance BOD's credibility and company reputation (Dragomir et al., 2022; Liu & Zhang, 2017).

According to agency theory, inclusion of INED on corporate BOD as the source of independent monitors and advisors would result in better firm performance (Tran, 2021). Higher ID would effectively control managerial opportunism (Kilic & Kuzey, 2020). Agency theory posits that INED provide effective monitoring and plays the role in protecting shareholders from opportunistic behaviour of executives who may seek private gain (Kapoor & Goel, 2019). Agency theory views INED as a robust CG mechanism to offset the gap between owners and managers as INED have a fiduciary duty to compel BOD to have more voluntarily disclosures to reduce information asymmetry (Rashid & Hossain, 2022).

According to the study conducted by Kiptoo et al. (2021), firm with higher ID perform better than those with lower ratio of INED. Thus, BOD shall have a sufficient number of INED to ensure unbiased decisions to be made in order to boost firm performance. This outcome is in line with the results obtained in several past researches (Hersugondo et al., 2022; Kumar & Mukhopadhyay, 2021; Ngulumbu & Aduda, 2017).

However, in a study conducted by Merendino and Melville (2019), they concluded that company performance isn't necessarily improved by larger number of INED on BOD, rather, a balanced composition of BOD is beneficial. Apart from it, the research conducted by Zulkafli et al. (2020) even concluded that organization's performance jeopardized with more INED on BOD. Excessive ID could damage the advisory role of BOD as INED may lack of information of company's operations. Besides, multiple directorships hold by INED may causing them allocate less attention in a single company. Thus, following hypotheses were formed to determine the association between ID and performance of PLCs in Malaysia.

#### **Hypotheses**

$H1_{IDa}$	:	ID has a significant correlation with the performance of top
		100 PLCs in Malaysia (ROE).

- H1<sub>IDb</sub> : ID has a significant correlation with the performance of top 100 PLCs in Malaysia (EPS).
- H1<sub>IDc</sub> : ID has a significant correlation with the performance of top 100 PLCs in Malaysia (TQ).

# 2.3.3 Literature Review (IV) – Percentage / Number of Women Directors ("WD")

Gender diversity is defined as the fraction of women directors on the BOD (Chatjuthamard et al., 2021). According to Practice 5.9, Principle A of MCCG 2021, the BOD shall comprise of not less than 30% women directors to increase the gender diversity on BOD (Securities Commission Malaysia, 2021b). Currently, women held 17.7% of BOD position across all PLCs and 26.5% on the top 100 PLCs in Malaysia (Seah, 2021b; Zainul, 2022).

In accordance with resource dependency theory, female on BOD is wanted as they can offer a wide range of resource which men rarely offers (Suklev et al., 2020). Gender diversity on board enhances the legitimacy and communication with diverse opinion (Lim & Park, 2022). Besides, resource dependency theorists also support the view that presence of women on BOD could benefit the business performance by supporting the company in gaining preferential access to other resources (Tuo et al., 2021).

Viewed through the lens of stakeholder theory, a gender diversified BOD is more likely to represent stakeholders (Pareek et al., 2021). Stakeholder theory posits that women directors are more likely to assist the company build an orientation towards various stakeholders' interests (Liu et al., 2020). Hence, gender diversity assists corporate's interests to be congruence with stakeholders' interests (Vasconcelos et al., 2022). Stakeholder theory suggests that female directors may be more attentive to stakeholder requirements and may be inclined to make more inclusive and socially advantageous decisions (Nerantzidis et al., 2022).

In term of agency theory, gender diversity is a tool to overcome agency problems (Chen & Hassan, 2022). Higher gender diversity helps in monitoring managers and strengthen BOD independence (Buallay & Alhalwachi, 2022; Zaid et al., 2020). The presence of women directors on BOD provides more effective monitoring because female query more and less likely to disrupt shareholders' interests, therefore minimising agency conflicts (Guizani & Abdalkrim, 2022; Javeed et al., 2022).

WD is significantly positively correlated with company's ROE and ROA (Bennouri et al., 2018). In study undertaken by Nguyen et al. (2021) gender diversity appears to positive influence the firm performance in nations with higher levels of national governance quality. Scholars suggest that female directors are more independent than their male counterparts, leading to improved monitoring by the BOD and potentially enhancing company performance. Besides, as stated by Khidmat et al. (2020), gender diversity was found to has a significant direct effect on the company performance. This result was supported by various recent past studies as well (Green & Homroy, 2018; Jeet, 2020).

On the other hand, in a study conducted by Singh et al. (2019) in India concluded that gender diversity on the BOD does not significantly impact company performance. However, they suggested that this could be due to the fact that the sample firms only appointed one female director in compliance with the mandatory provision of the Indian Companies Act 2013. Further studies are required to investigate this issue. Other studies have found no significant association between the presence of female directors and company performance as well (Shabbir, 2018). There even study

concluded that WD having a significant inverse relationship with company performance (Ng et al., 2021; Solal & Snellman, 2019).

Empirical research on gender diversity and company performance remains mixed (Ahmadi et al., 2018). Thus, To further explore the relationship between WD and company performance, the present study formulated the following hypotheses.

### **Hypotheses**

:	WD has a significant correlation with the performance of
	top 100 PLCs in Malaysia (ROE).
:	WD has a significant correlation with the performance of
	top 100 PLCs in Malaysia (EPS).
:	WD has a significant correlation with the performance of
	:

## 2.3.4 Literature Review (IV) – Proportion / Number of Independent Audit Committee Members ("IDAC")

top 100 PLCs in Malaysia (TQ).

An independent AC is a committee formed by the BOD's Commissioners with the functions of helping the executions of supervisory duties of the corporate (Yuniarti et al., 2020). It is a successful governance mechanism which able to improve the financial reporting quality and company's internal controls (Deslandes et al., 2019). According to Paragraph 3.05 of Main Market Listing Requirements ("MMLR"), an AC shall comprise a majority of INED (Bursa Malaysia Securities Berhad, 2022). The Step-Up Practice 9.4, Principle B of MCCG 2021 even recommended that the AC should comprise solely of INED (Securities Commission Malaysia, 2021b).

In a study conducted by Yanthi et al. (2021), AC variable proxied by independency was found to have influence on company's income. This result is aligned with agency theory which stated AC would give effective check and balance to management. According to agency theory, AC serves as the representative of the principals (Reskika & Ickhsanto Wahyudi, 2021). Independent AC provides effective oversight of management to prevent managers (agent) do not carry out actions which may be harmful towards

the owner (principals) and lessen opportunities for management to be opportunistic by hiding information. Independent AC also ensuring higher quality of financial report as well (Hasani & Muhammad, 2022; Sari & Setiany, 2022).

AC shall be separated from management because AC is required to ensure that the management doesn't abuse the power delegated to them. AC with fewer INED will be easily manipulated by the management, thereby impair the future of the company. The absence of independence within AC lead to negative impacts to the shareholders, who rely on the AC to protect their interests (Norziaton & Hafizah, 2019). Moreover, if AC able to carry out its duties independently, it can oversight management activities and review the financial reporting more effectively and lead to a better company performance (Farooque et al., 2019).

The findings of research conducted by Kaura et al. (2019) indicates that the independent AC has the most significant effect on company financial performance. According to these scholars, by having sufficient INED in AC, the AC will be free from the pressure from management and enjoying full freedom in giving its independent advices. Besides, more transparent evaluation and scrutinise on the financial matters will eventually lead to a better company performance. The outcome of AC's independence is significantly correlated to company performance was also supported by numerous past literatures (Al-Jalahma, 2022; Almarayeh et al., 2022; Anwar & Aziz, 2019; Enekwe et al., 2020; Habtoor, 2022a; Ibrahim et al., 2019; Musallam, 2020).

On the other hand, there are also researches found insignificant positive relationship between AC independence and company performance (Al-ahdal & Hashim, 2022; Mili & Hashim, 2021). There even researches pointed out a negative association between AC independence and company profitability (Eissa et al., 2021; Haris et al., 2019; Quddoos et al., 2020). Hence, in order to ascertain the association between IDAC and company performance, the following hypotheses were formed.

#### **Hypotheses**

H1 <sub>IDACa</sub>	:	IDAC has a significant correlation with the performance of
		top 100 PLCs in Malaysia (ROE).
H1idacb	:	IDAC has a significant correlation with the performance of
		top 100 PLCs in Malaysia (EPS).
H1 <sub>IDACc</sub>	:	IDAC has a significant correlation with the performance of

top 100 PLCs in Malaysia (TQ).

#### 2.3.5 Literature Review (IV) – Ownership Concentration ("OC")

OC is referring to a situation where fewer shareholders possess a substantial portion of company's shares while other shareholders hold only a small fraction of the company's shares (Samarawickrama et al., 2021). OC provide the large shareholders power and incentives to track and influence managerial decisions (Daniel, 2021). For example, in pursuant to Section 310 and Section 311 of Malaysia Companies Act (2016), shareholders with not less than 10% have the power to convene or require the BOD to convene a general meeting.

In addition, Paragraph 9.25 and Appendix 9C of MMLR also required the PLCs to disclose the details of the substantial shareholders (Bursa Malaysia Securities Berhad, 2022). Therefore, OC can be measured by the summation of all above five per centum ownership stakes to total number of shares issued (Sambo et al., 2022). According to Ganguli and Guha Deb (2021), low level of OC will adversely impact the company performance. Their study showed the ideal level of OC is moderate to high OC ranges between 25% and 75%.

According to agency theory, OC can be an effective instrument to minimise agency costs and enhance company performance (Nguyen et al., 2020). OC is able to reduce the expropriation of private benefits and minimize risky behaviour which in turn lead to a better company performance. Centralised ownership plays the role as an external oversight mechanism for managing director's activities (Sharifzadeh & Jamshidi, 2021). Besides, OC reduce agency costs by reducing the traditional conflicts between principals and agents because the principals are sufficiently powerful to restrain unproductive agent behaviour (El-Chaarani et al., 2022). However, OC may result in another kind of agency problem, which is expropriation of small shareholders by larger shareholders (Ehsan & Javid, 2018).

According to Peng et al. (2021), large OC will improve company performance. This is due to the synergies associated with introducing blockholders with professional capabilities outweigh the advantages of decentralised ownership structure. In a study conducted by (Aboud & Diab, 2022), OC was concluded as having significant positive relationship with company performance. This result is in-line with the researches' result of numerous past studies (Ade Putra et al., 2022; Javeed et al., 2021; Khan & Baker, 2022). Furthermore, the result of research undertaken by Ozdemir and Kilincarslan (2021) revealed a highly significant negative correlation between OC and company performance. This may be attributed to the non-alignment of the underlying portfolio allocations of large shareholders with their corresponding ownership percentages. The negative association between OC and company performance is consistent with a number of past studies (Alhaj et al., 2022; Aribaba et al., 2022; Hanif & Haque, 2022).

The association between OC and firm performance are empirically ambiguous and theoretical complex (Machek & Kubíček, 2018). For example, a study carried out by Abdullah et al. (2019) found that there is an inverse relationship between OC and ROA especially in the case of familybased OC. However, the correlation of non-family-based OC with ROA and TQ ratio was found to be significant positive. Shatnawi et al. (2021) have also concluded that OC has a direct positive impact on ROA and ROE, but a direct negative impact on TQ ratio.

OC is a double-edged sword that can work from both sides. It can facilitate the alignment and regulation of managerial behaviour to maximize shareholder value in some instances, while in other instances it may lead to negative outcomes (Allam, 2018). There even studies concluded an inverse U-shape correlation between OC and company performance (Altaf & Shah, 2018; Tleubayev et al., 2021). Thus, in order to examine the association between OC and company further, following hypotheses were formulated.

### **Hypotheses**

H1 <sub>OCa</sub>	:	OC has a significant correlation with the performance of top	
		100 PLCs in Malaysia (ROE).	
Н1ось	:	OC has a significant correlation with the performance of top	
		100 PLCs in Malaysia (EPS).	
H1occ	:	OC has a significant correlation with the performance of top	

#### 2.3.6 Literature Review (IV) – Board Size ("BS")

100 PLCs in Malaysia (TQ).

BS is referring to the aggregate number of directors elected to represent shareholders in ensuring the executives actions are bona fide and aligned with the shareholders' interest (Mnyawi et al., 2022). The MCCG 2021 didn't specify an ideal BS (Securities Commission Malaysia, 2021b). In order to establish an effective BOD, company shall determine the BS in accordance with the company objectives and strategies (Bursa Malaysia Berhad, 2021). However, Minority Shareholder Watchdog Group (2010) has expressed a view that ideal BS should be 7 members. Cadbury Report (1992) has also suggested an ideal BS should ranges between 8 to 10 members (Elad et al., 2018; The Committee on the Financial Aspects of Corporate Governance & Gee and Co. Ltd, 1992; Younas & Kassim, 2020). Besides, Organisation for Economic Co-operation and Development (2010) has also commented that BOD that exceeds 10 – 12 members may function less well.

BS is essential in managing company's capital needs (Ajanthan & Ramesh, 2021). Resource dependency theory posits that there is a positive correlation between BS and company performance. This is due to additional directors bring in more human and social capital, increase the board's information and knowledge, and improve strategic decision-making, leading to improved company performance (García-Ramos & Díaz, 2021). Larger BOD has more accesses to resources (M. H. Amin et al., 2021). It is expected that BS

with many links to external environments is likely to progress a company's success to various resources, which result in CG robustness and better performance (Shah et al., 2022).

From the perspective of agency theory, larger BS is preferred as larger BOD has greater monitoring capacities therefore it is an effective governance tool in oversighting management performance (Azeez et al., 2019; Riyadh et al., 2019). Larger BOD is expected to reduce the ability of executives dominate the BOD and provides firm with broader perspective on the managerial issues faced by the firm (Ganesan et al., 2018). However, there are also scholars claimed that BS shall be smaller because large BS may lead to occurrences of agency problems as it is difficult for the directors to voice out opinion and new ideas (Janang et al., 2022).

Stakeholder theory postulates that larger BOD is representative of a variety of stakeholders (Lin & Nguyen, 2022; Nursimloo et al., 2020). Companies with larger BOD are more likely to consider interests and sensitivities other managers and major shareholders (Zubeltzu-Jaka et al., 2020).

Research carried out by Tuo et al. (2021) revealed a positive association between BS and company performance. Large BS enable the specialization for effective monitoring and advisory functions. Besides, large BS provide substantial people to more easily manage the workload of the BOD. The significant positive relationship between BS and company performance was also found by a number of researchers in their recent researches (Hamid & Purbawangsa, 2022; Murtaza et al., 2021; Nepal & Deb, 2022; Saha & Maji, 2022). However, there are also numerous scholars concluded that BS has a positive but insignificant impact on company performance (Alhejji & Khawaja, 2021; Mititean, 2022; Owolabi et al., 2021).

In a study conducted by Lim and Kassim (2022) in Malaysia, BS was found to have a significant adverse impact on the company's ROA due to the higher directors' remunerations, ineffectiveness caused by bureaucratic problems, communication difficulty as well as coordination issues. This is in-line with a number of recent past studies as well (AlSaif et al., 2022; Samuel & Edogbanya, 2022; Titilayo et al., 2022). The correlation between BS and company performance remains mixed. Hence, this study formulated the following hypotheses to investigate further.

## **Hypotheses**

H1 <sub>BSa</sub>	:	BS has a significant correlation with the performance of top	
		100 PLCs in Malaysia (ROE).	
H1 <sub>BSb</sub>	:	BS has a significant correlation with the performance of top	
		100 PLCs in Malaysia (EPS).	
H1 <sub>BSc</sub>	:	BS has a significant correlation with the performance of top	
		100 PLCs in Malaysia (TQ).	

# 2.3.7 Literature Review (IV) – Existence of Compliance Committee ("ECC")

A compliance committee is a group of board members assigned the responsibility of ensuring that the company and its employees comply with all relevant laws, rules, and regulations (Melendy & Huefner, 2011). Compliance committee is not prescribed in MCCG 2021 neither in MMLR (Bursa Malaysia Securities Berhad, 2022; Securities Commission Malaysia, 2021b). However, in a guideline on CG for capital market intermediaries, effective functioning compliance committee is recommended to be established (Securities Commission Malaysia, 2021d). In addition, Basle Committee on Banking Supervision ("BCBS") Principle 2015 has also recommended the banks and the parents of banking groups to established a compliance committee to promote proper decision-making and compliance with laws and regulations (Basel Committee on Banking Supervision, 2015; Organisation for Economic Co-operation and Development, 2015). Thus, ECC as a best practice, shall not be limited only to banking industry, it may be beneficial to other companies as well.

Compliance committee is essential in observing the compliance of the company operation (Juanda et al., 2019). Compliance committee shall be responsible to report to the BOD, review company's code of conducts and other appropriate compliance policies, oversight compliance training provided to employees as well as preparing disclosures regarding

compliance matters. It is also a valuable forum for leaders throughout the corporation to identify and discuss compliance issues (Gutterman, 2020).

According to Cunha et al. (2022), the decisions of the BOD and executives' officers may be influenced by decisions made on management committee including compliance committee. Thus, they have concluded in their study that ECC is having a significant direct impact on company performance. In addition, a study conducted by El-Chaarani and Abraham (2022) in banking sector has also concluded that ECC could assists the bank to improve financial performance and mitigate financial risk via the reducing nonperforming loans and increasing capital adequacy. Moreover, it is also expected that the ECC to provide a more objective assessment of the correctness and alignment of company's actions with legislations and the interests of different stakeholders (Sudarna et al., 2020). In study conducted by Holcomb et al. (2019), companies with ECC are found to be outperformed the companies without ECC. According to them, ECC may be able to provide early warning signals to BOD and management executives if it has detected and identified red flags of possible threats which may fester and evolve into material financial performance risks.

The literatures that investigate on the correlation between ECC and company performance are still insufficient (Amine, 2018; Bannier et al., 2019; Cunha et al., 2022). There is also scholar recommended future researches shall take into consideration the ECC as a construct in affecting the company performance (Jibai, 2021). Thus, in order to fill-in this research gap, the following hypotheses were formulated in this study to inspect whether the ECC has an impact on the firm performance.

#### **Hypotheses**

H1 <sub>ECCa</sub>	:	ECC has a significant correlation with the performance of
		top 100 PLCs in Malaysia (ROE).
H1eccb	:	ECC has a significant correlation with the performance of
		top 100 PLCs in Malaysia (EPS).
H1ECCc	:	ECC has a significant correlation with the performance of
		top 100 PLCs in Malaysia (TQ).

## 2.4 Research Framework

Drawing on relevant theories discussed in Section 2.1 and literature reviews in Sections 2.2 and 2.3, this study developed a research framework (Figure 5) to guide its investigation.





Note. Developed for the research

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## 2.5 Proposed Conceptual Model

To address the research objectives and questions stated in Chapter 1, this study proposed a conceptual model (Figure 6) to investigate the impact of CG best practices on the performance of the top 100 PLCs in Malaysia.

Figure 6: Proposed conceptual model



Note. Developed for the research

## **2.6 Conclusion**

Chapter 2 presented a literature review of past studies conducted by various academics, which informed the formulation of hypotheses based on theoretical foundations. Additionally, a conceptual model was proposed to investigate the relationship between CG best practices and the performance of the top 100 PLCs in Malaysia. In the following chapter, the research methodology for testing these hypotheses will be discussed.

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## CHAPTER 3

# METHODOLOGY

### **3.0 Introduction**

This chapter presents the methodologies used in this research, including the research setting, sample selection, measurement scales, data collection methods, and analysis techniques. It also discusses the data collection process and how the collected data was processed and analysed.

## 3.1 Research Design

In this study, "archival research strategy" was used to investigate the research questions and hypotheses (Srichoke et al., 2021). This study makes use of companies' annual report as the principal source of data to enable research questions which related the past and temporal to be answered, be they descriptive, exploratory or explanatory (Saunders et al., 2009).

This study utilized a quantitative research methodology to analyse secondary data obtained from the annual reports of the selected PLCs and financial data sourced from Refinitiv Terminal. In other word, this is a quantitative research deals with statistics and numbers when gathering and analysing data (Kim, 2022). This study applying quantitative analysis to collect hard facts in numerical form which are structured and statistical (Nsubuga, 2020). Quantitative methodology applied in this study allows for statistical data analysis to discover less biased results (Rojanakit et

al., 2022; Shkoler, 2018). Thus, it is an objective, formal, deductive, rigorous and systematic approach to generate and refine knowledge for problem-solving (Mohajan, 2020).

On the other hand, in term of time-horizons, this study collected and analysed data from top 100 PLCs in Malaysia for 9 years period from FY2013 to FY2021. Thus, this is a longitudinal study as this study collected data from the same samples over an extended period of time (Chuang et al., 2022). This study is longitudinal in nature as it employed panel data analysis which refers to a statistical analysis of pooled data which contains cross-section of units (companies) for which there exist recurrent observations over time (Grill, 2017). Longitudinal study provides the cause-and-effect relationship between CG and company performance (Juhari & Joseph, 2020). The primary strength of this research design is the capacity of longitudinal research able to study change and development on the correlation between CG and company performance and therefore chart progress over a period of time (Gonzi, 2019).

## **3.2 Data Collection Method**

The study primarily relied on secondary data as the main source of information. Secondary data is referring to those data which have already collected and analysed by others, such as those available in annual reports, financial statements, notes and disclosures (Murage & Emba, 2019).

In specific, financial data of the top 100 PLCs in Malaysia for period FY2013 – FY2021 used in measuring and deriving DVs (ROE, TSR, TQ) were obtained from Refinitiv Terminal. Besides, data used to quantify the selected companies- CG practices - IVs (CEOD, ID, WD, IDAC, OC, BS, ECC) were obtained from the companies' annual report of the relevant FYs. On the other hand, qualitative secondary data used in this research includes books, news articles, business and research reports as well as journals articles published in various databases like Scopus, ScienceDirect, Emerald, JStor and et cetera (Ladzani, 2022; Murthy & Gopalkrishnan, 2022).

## **3.3 Sampling Design**

Sampling design can be referred to the methods of selecting item to be observed for this study (Kariuki et al., 2019).

### **3.3.1 Target Population**

According to Cooper and Schindler (2008), target population for this study refers to the events, people, or records that contain relevant information to answer the research question. In accordance with the study's objectives of investigating the impact of CG best practices on the performance of the top 100 PLCs in Malaysia, the target population was identified as companies listed on BURSA's Main Market.

Sector	Number of companies	Percentage (%)
Closed-End Fund	1	0.13%
Construction	50	6.35%
Consumer Products & Services	169	21.45%
Energy	30	3.81%
Financial Services	31	3.93%
Health Care	17	2.16%
Industrial Products & Services	226	28.68%
Plantation	41	5.20%
Property	98	12.44%
Real Estate Investment Trusts	19	2.41%
SPAC	1	0.13%
Technology	46	5.84%
Telecommunications & Media	16	2.03%
Transportation & Logistics	31	3.93%
Utilities	12	1.52%
Total	788	100.00%

Table 1: Companies listed on BURSA's Main Market as at 31 Dec 2022

Note. Adapted from KLSE Screener. (2022, December 31). Stocks Screener.

Neobie Enterprise Sdn Bhd. https://www.klsescreener.com/v2/

#### **3.3.2 Sampling Frame**

The complete list of units in the target population is known as the sampling frame (Mellenbergh, 2019). The sampling frame of this study will be the 788 companies listed on BURSA's Main Market as at 31 December 2022 (Bursa Malaysia Berhad, 2022). Table 1 depicts the sampling frame from which the top 100 largest market capitalization's companies fulfilling sampling elements will be selected as the sample of this research.

#### **3.3.3 Sampling Elements**

Sampling elements are referring to the cases of analysis chosen from the target population of this study (Narasimhan & Amitha, 2019). Appendix 1 depicts top 100 PLCs in Malaysia selected in this study (KLSE Screener, 2022). In this study, the sampling units would be the companies listed on BURSA's Main Market with the largest market capitalization as at 31 December 2022. The rationale behind analysing CG practice and company performance of top 100 PLCs in Malaysia is due to companies with larger firm size are expected to be exposed to agency problems and having higher agency costs (Kurniawati & Yatna, 2020; Sobhan & Chowdhury, 2022).

Besides, the companies chosen to be qualified as the sampling element shall have a completed set of relevant data over the 9 years period of FY2013 – FY2021. For example, referring to Appendix 1, 12 companies listed after year 2013 with missing data over the years were not selected despite of its market capitalization have ranked higher due to the available published data were incomplete.

#### **3.3.4 Sampling Technique**

This study has determined that a probability technique is appropriate for sample selection, as a sampling frame is available for the selection of samples (DeCarlo et al., 2021). Hence, stratified sampling technique was applied in this study, a method of sampling from a population which can be

partitioned into subpopulations, subgroups, or strata (Fu et al., 2020; Rezai et al., 2021).

In term of defining the strata, this study had applied implicitly stratified sampling ("ISS") technique in which the population was ranked following ordering principle - market capitalization as at 31 December 2022 (Lynn, 2019). The potential of using ISS was recognised in the statistical literatures as it able to provide greater precision gain (Kish, 1965; Madow & Madow, 1944). With the sampling frame, researcher employed stratified sampling technique to exclude companies with market capitalization ranked after 100<sup>th</sup> or with incomplete information (Wan Mohammad et al., 2022). In other word, only elements within the strata of market capitalization ranked within 1<sup>st</sup> to 100<sup>th</sup> and with complete data will be sampled in this study.

In term of proportion, this study applied disproportionate stratified sampling in which the number of elements sampled from each stratum is unequal to their population representation (Iliyasu & Etikan, 2021). This can be seen from Table 2 which indicate the proportion of companies being sampled by sectors.

Sector	Number of companies	Percentage (%)
Closed-End Fund	0	0%
Construction	2	2%
Consumer Products & Services	21	21%
Energy	4	4%
Financial Services	16	16%
Health Care	5	5%
Industrial Products & Services	10	10%
Plantation	8	8%
Property	5	5%
Real Estate Investment Trusts	5	5%
SPAC	0	0%
Technology	8	8%
Telecommunications & Media	б	6%
Transportation & Logistics	4	4%
Utilities	б	6%
Total	100	100%

Table 2: Proportion of companies being sampled by sectors

Note. Developed for the research

#### 3.3.5 Sampling Size

The samples of this research consist of 900 firm-year observations, comprising 100 companies listed on BURSA's Main Market with completed data for 9 years period of FY2013 – FY2021.

In general, a larger sample size is associated with a lower probability of errors in extrapolating findings to the population (Lincoln, 2022). The determination of sample size is extremely important to draw precise conclusions. A well conducted study with irrational small sample size may fail to detect or imprecisely estimate the correlations of constructs. However, if the sample size is too large, the research would be more complex, costly and may even lead to inaccuracy (Singh & Masuku, 2014).

With a population of 788 companies, a sample size of 100 companies or 12.7% of the population is appropriate for this study as it fit with the sample size recommended by various scholars shown in Table 3.

Scholar	<b>Recommended Sample Size</b>		
Schow	Rule of Thumb	For this Study	
Delİce (2010)	30 - 500	30 - 500	
Iacobucci (2010)	50 - 500	50 - 500	
Hill (1998)	10% of the Population	79	
Roscoe (1995)	$\geq$ 10 Times of the Number of Variables	100	
Hair et al. (2010)	≥100	≥100	

Table 3: Recommended sample size

Note. Developed for the research

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## **3.4 Research Instrument and Data Processing**

All data employed in this research were obtained from the companies' audited annual reports or Refinitiv Terminal (please refer to Section 3.2 of this report for detailed description). All annual reports were publicly available for downloaded from BURSA's website (https://www.bursamalaysia.com/), while the access of the Refinitiv Terminal was granted by Universiti Tunku Abdul Rahman ("UTAR")'s Faculty of Accountancy and Management ("FAM").

The collected data for the IVs (CEOD, WD, OC, BS, and ECC) were extracted manually from the audited annual reports and entered into a Microsoft Excel spreadsheet for compilation. For the IVs (ID, IDAC), the figures extracted from the annual reports were used to calculate the values using Microsoft Excel 2019. The DVs (ROE, TSR, and TQ) were computed by Microsoft Excel 2019 based on financial data extracted from Refinitiv Terminal and. The specific formulas used for calculating ID, IDAC, ROE, TSR, and TQ can be found in Section 3.5.

The collected data were organized in an Excel spreadsheet, where the company names and codes, as well as the FY of the collected data, were listed in rows. The IVs and DVs were inputted or calculated in columns. The data was then sorted and processed for descriptive analysis before being exported to EViews 12 software for panel data analysis. To identify the appropriate model for the data, the study conducted the Hausman test to decide between a Fixed Effects Model ("FEM") or Random Effects Model ("REM").

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## **3.5 Construct Measurement**

This study examined the relationship between 3DVs and 7IVs, 2 of which were binary dummy variables (CEOD and ECC). The constructs for this study were derived from previous research and their operationalization and measurement are provided in Tables 4 and 5.

Table 4: Measurement and descriptions of IVs

IV	Measurement	<b>Definition / Formula</b>	Adopted / Adapted from		
	CEOD	Dummy variable that has the value of 1 if the CEO	Bennouri et al. (2018); Johani and Atm (2022)		
CEO Duality		is also the Chairman of the Board; otherwise, 0.	Kara et al. (2022); Singhania et al. (2022)		
		$0 = Non-CEO \ duality$			
		I = CEO duality			
Board Independence	ID -	Ratio of number of INED to total board size.	Bennouri et al. (2018); Farooque et al. (2019);		
		Number of INED	Johani and Atm (2022); Kara et al. (2022);		
		BS	Kiptoo et al. (2021)		
		Number of INED on the BOD.	Khidmat et al. (2020); Menicucci and Paolucci		
			(2022); Rajeevan and Ajward (2019); Singhania		
			et al. (2022)		

	WD	Total number of female directors on BOD.	Hashmi and Gulzar (2022); Kara et al. (2022);		
Board Gender			Singh (2020)		
Diversity		Percentage of female directors on BOD.	Khan et al. (2020); Menicucci and Paolucci		
			(2022); Singhania et al. (2022)		
	IDAC	Ratio of INED to the total number of AC members.	Al-Jalahma (2022); Farooque et al. (2019);		
Independent Audit Committee		Number of INED in AC Number of AC MembersJaveed et al. (2021); Yanthi et al. (202			
		Number of INED in AC.	Arif et al. (2021); Rajeevan and Ajward, (2019)		
Ownership		Summation of all ownership stake held by	Alhaj et al. (2022); Ozdemir and Kilincarslan		
Concentration	OC	substantial shareholders disclosed in annual report.	(2021); Sambo et al. (2022); Sapkota and Poudel		
Concentration			(2022)		
Doord Size	BS	Number of directors on the BOD.	Bennouri et al. (2018); Kara et al. (2022); Lim		
Doard Size			and Kassim (2022); Singhania et al. (2022)		
		Dummy variable that has the value of 1 if the	Bannier et al. (2019); El-Chaarani and Abraham		
Existence of		company established compliance committee at top	(2022); Holcomb et al. (2019)		
Compliance	ECC	management level; otherwise, 0.			
Committee		$0 = Compliance \ committee \ doesn't \ exist$			
		1 = Compliance committee exists			

Note. Developed for the research

DV	Measurement	Definition / Formula	Adopted / Adapted from	
Company Performance	ROE	Ratio of net income to total stockholders' equity. <u>Net Income</u> <u>Total Shareholders' Equity</u>	Altass, (2022); Bennouri et al. (2018); Johani and Atm (2022); Khalil and Slimene (2021); Lim and Kassim (2022)	
Company Performance	TSR	Sum of capital gains and dividends earned by shareholders. $\frac{SP_n - SP_{n-1}}{SP_{n-1}}$ $SP_n = Dividend\text{-}adjusted share price at FY end}$ $SP_{n-1} = Dividend\text{-}adjusted share price at FY}$ $opening$	Alshorman and Shanahan (2021); Makhija and Trivedi (2021); Ng et al. (2020); Pintea et al. (2021); Shin et al. (2022)	
Company Performance	TQ	Sum of market capitalization and book value of liabilities divided by the book value of total assets <u>Market Capitalization + Total Liabilities (BV)</u> Total Assets (BV)	Aboud and Diab (2022); Ade Putra et al. (2022); Bennouri et al. (2018); Farooque et al. (2019); Pintea et al. (2021); Singhania et al. (2022)	

Table 5: Measurement and descriptions of DVs

Note. Developed for the research

## **3.6 Data Analysis**

The results of the research of this study were obtained through descriptive analysis as well as panel data analysis.

#### **3.6.1 Descriptive Analysis**

The descriptive analysis is used to measure the population characteristic according to the sample data collected (Zikmund et al., 2013). Descriptive analysis was carried out in this study to transform raw data into a form that would provide information to describe a set of factors in a situation which are ease of understanding and interpreting (Sekaran, 2003).

Nominal scale dummy variables such as CEOD and ECC were presented in frequency tables (Mandasari & Rahardja, 2022). Meanwhile, descriptive statistics such as mean, standard deviation, minimum, and maximum values were used to describe the characteristics of interval scale IVs (ID, WD, IDAC, BS), ratio scale IVs (OC), and ratio scale DVs (ROE, TSR, TQ). This approach was chosen because nominal scale data cannot be meaningfully analyzed using traditional descriptive statistics (Saunders et al., 2012). This approach enables the researcher to gain a clearer understanding of the patterns in CG practices and performance among Malaysian companies.

#### 3.6.2 Panel Data Analysis

In this study, panel data analysis was carried out. It is an analysis on two dimensionalities which are cross-section and time series dimensions. Thus, this analysis allows the researcher to analyse a number of CG questions that simply can't be analysed in pure time-series or cross-sectional analysis (Sani et al., 2021). Besides, the econometric modelling of panel data analysis enables researcher to study on dynamic relationships between various CG practices and company performance (Eugenio-Martin & Patuelli, 2022).

Regression test under panel data analysis shall be incorporated with specific method, either FEM or REM. In general, REM looks at the differences in

error terms, while FEM assumes the differences in intercepts across the time-series (Abdullah et al., 2017). In order to select the appropriate estimation model in panel data analysis, Hausman (1978) test will be employed. The null hypothesis of this test is that the individual effect is unrelated to explanatory variable. If the test is significant at a value less than 0.05 probability-value ("p-value"), FEM will be a better fit to the data compared to REM (Abdullah et al., 2022).

Panel data analysis has various advantages which encourage the researcher to adopt and employed panel data analysis in this research. Firstly, panel data analysis is more informative as it increases the degree of freedom and variation in data which makes the estimator to be more efficient and less biased due to aggregation (Feriyanto, 2019; Ronaghi et al., 2018). Secondly, panel data is a set of observations collected at discrete and evenly spaced time-interval (Min et al., 2022). It requires a huge number of data points of cross-sections and time-periods, even its renowned consistency compared to the time series model (Azam et al., 2021). Thirdly, panel data analysis able to control multi-collinearity issues and take into account greater degree of the heterogeneity that characterises companies over times (Alsamara et al., 2018; Haddad et al., 2008).

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The equations for a panel data model with more than one IVs are written as follow:

General equation:

$$y_{i,t} = \beta_0 + \beta_1 x_{i,t,1} + \beta_2 x_{i,t,2} + \dots + \beta_k x_{i,t,k} + \varepsilon_{i,t}$$

Equations developed for this study:

$$\begin{aligned} ROE_{i,t} &= \beta_0 + \beta_1 CEOD_{i,t} + \beta_2 ID_{i,t} + \beta_3 WD_{i,t} + \beta_4 IDAC_{i,t} + \beta_5 OC_{i,t} + \\ &\beta_6 BS_{i,t} + \beta_7 ECC_{i,t} + \varepsilon_{i,t} \end{aligned}$$
$$\begin{aligned} TSR_{i,t} &= \beta_0 + \beta_1 CEOD_{i,t} + \beta_2 ID_{i,t} + \beta_3 WD_{i,t} + \beta_4 IDAC_{i,t} + \beta_5 OC_{i,t} + \\ &\beta_6 BS_{i,t} + \beta_7 ECC_{i,t} + \varepsilon_{i,t} \end{aligned}$$

$$\begin{split} TQ_{i,t} &= \beta_0 + \beta_1 CEOD_{i,t} + \beta_2 ID_{i,t} + \beta_3 WD_{i,t} + \beta_4 IDAC_{i,t} + \beta_5 OC_{i,t} + \\ &\beta_6 BS_{i,t} + \beta_7 ECC_{i,t} + \varepsilon_{i,t} \end{split}$$

$\beta_0$	=	Intercept for the regression model
$\beta_{1}, \beta_{2}, \beta_{3}, \beta_{4}, \beta_{5}, \ \beta_{6}, \beta_{7}, \beta_{k}$	=	Coefficient of the IVs
3	=	Error terms of the regression model
i	=	Observation number in a cross-sectional data set
t	=	Observation number in a time-series data set
X	=	Vector of observations

Source: Chang et al. (2021); Fitrianto and Musakkal (2016); Teh (2021)

### **3.7 Conclusion**

In a nutshell, Chapter 3 presented a comprehensive account of the methodology used in this study. It detailed the procedures, sequences, and processes employed to collect and analyse the data in order to investigate the relationship between CG and company performance. The subsequent chapters will focus on the outcomes of the data analysis.

## **CHAPTER 4**

# **RESEARCH RESULTS**

### 4.0 Introduction

This chapter presents the research findings in two sections. Section 4.1 offers a detailed discussion of the outcomes of the descriptive analysis. In contrast, Section 4.2 provides an in-depth presentation of the results obtained from the panel data analysis. The chapter employs tables and graphs in a strategic manner to facilitate an effective and clear understanding of the research findings.

## 4.1 Descriptive Analysis

To provide basic information about constructs in a dataset and highlights potential correlation between variables, descriptive analysis is useful (Arachchi et al., 2022; Khamis et al., 2019). In this section, the average score of each variable was measured using the mean, while the standard deviation was employed to indicate the variability or deviation of each variable from its mean value (Saunders et al., 2009). This approach enabled a precise evaluation of the findings by providing insights into the central tendency and distribution of the data.

#### 4.1.1 Dependent Variables

The study utilized three DVs, namely ROE, TSR and TQ to measure company performance. Descriptive statistics pertaining to these variables can be found in Table 6 to provide insights and serve as a basis for further analysis and interpretation of the research findings.

FY	Sample	ROE		TSR		TQ	
		Mean	σ	Mean	σ	Mean	σ
2013	100	20.0%	32.3%	26.5%	70.9%	2.07	2.16
2014	100	20.4%	35.4%	16.7%	51.3%	2.08	2.25
2015	100	20.0%	38.7%	9.0%	36.3%	2.03	2.12
2016	100	19.0%	37.6%	5.8%	33.3%	1.93	1.85
2017	100	19.6%	35.3%	32.1%	63.8%	2.17	2.21
2018	100	18.4%	35.8%	3.6%	35.9%	2.19	2.32
2019	100	18.2%	32.4%	11.8%	47.0%	2.10	2.21
2020	100	19.0%	48.3%	7.6%	59.9%	2.18	2.25
2021	100	19.2%	28.9%	14.7%	47.8%	2.11	2.12
2013-2021	900	19.3%	36.3%	14.2%	51.7%	2.10	2.16
$\sigma =$ Standard Deviation							

Table 6: Descriptive Statistics for ROE, TSR and TQ

Note. Developed for the research

### <u>ROE</u>

Figure 7: Mean of ROE



Note. Developed for the research

Figure 7 illustrates that the mean ROE of the top 100 PLCs in Malaysia for the period of FY2013 - FY2021 was 19.3%. The mean ROE was observed to range between 19% and 20.4% during this period. This indicates, in average, top PLCs in Malaysia generated around 20 Cents for each Ringgit invested in the companies' stocks (Shamsuddin et al., 2020). This has also showed that the companies in Malaysia are performing well as ROE between 15% to 20% are generally considered good (Gazi et al., 2021). Besides, the long-term ROE for standard and poor's 500 ("S&P 500") companies is merely 14% (Bargerstock & Abbasi, 2022).

Table 6 shows that the standard deviation of ROE for the top 100 PLCs in Malaysia ranged from 28.9% to 48.3% during the period of FY2013 to FY2021. Notably, these values are higher than the corresponding mean of ROE. This indicates that the values of ROE were spread out over a wider range (Dhanasekar et al., 2020). In overall, standard deviation of ROE for the top 100 PLCs in Malaysia in period FY 2013 – 2021 was 36.3% indicating that the financial performance of most samples in term of profitability varying from a loss on equity ("LOE") -17% to a ROE 55.6% (Kammoun et al., 2022; Zabri et al., 2016).

#### <u>TSR</u>



Figure 8: Mean of TSR

Note. Developed for the research

Figure 8 demonstrates that the average TSR for the top 100 PLCs in Malaysia during FY2013 to FY2021 was 14.2%. This indicates that investors may potentially gain 14.2 cents from a combination of dividend yield and capital gain yield for every Ringgit invested in these companies (Mironiuc & Huian, 2016). Besides, the mean of TSR exhibited considerable volatility, ranging between 3.6% and 32.1% within such period. However, the companies exhibited an attractive TSR compared to investing in low-risk government securities such as treasury bills and monetary notes, which typically provide a relatively stable return of around 2.9% - 3.15%. Despite lower risk, government securities offer lower returns compared to the TSR (Bank Negara Malaysia, 2023).

Table 6 indicates that the standard deviation of the TSR for the period of FY2013 to FY2021 ranged between 33.3% and 70.9%, which was higher than the mean. The findings suggest that investing in the Malaysian stock market is riskier due to the significant variability in TSR during this period (Halim et al., 2019). Moreover, in overall, standard deviation of TSR for the top 100 PLCs in Malaysia in period FY 2013 – 2021 was 51.7% indicating that the TSR of most samples varying from -37.5% to a 65.9% (Kammoun et al., 2022; Zabri et al., 2016). This is in consistent with the research result of Romli et al. (2021) who have concluded that Malaysia's stock market is highly volatile.

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## <u>TQ</u>





Note. Developed for the research

As per Figure 9, in overall, the mean of TQ of top 100 PLCs in Malaysia for period FY 2013 – 2021 was 2.1. Within the period of FY2013 to FY2021, the mean of TQ was ranged within 1.93 to 2.19. These figures indicates that the market capitalization of top 100 PLCs in Malaysia is approximately twice its replacement costs implying the market valuation premium and positive market expectation of the economic returns generated by the Malaysia companies (Razak et al., 2020).

From Table 6, the TQ's standard deviation was ranged within 1.85 to 2.32 within the period of FY2013 to FY2021. Moreover, in overall, standard deviation of TQ for the top 100 PLCs in Malaysia in period FY 2013 - 2021 was 2.16 indicating that the TQ of most samples varying from -0.06 to a 4.26. This indicates that the TQ of the samples are widely spread from the mean (Mallam Fali et al., 2020).

## 4.1.2 Independent Variables – Dummy Variables

There are two binary dummy variables used in this study, namely CEOD and ECC. Table 7 depicts the frequency of each dummy category of each dummy variable.

EX/	Samula	CEOD				ECC			
Γĭ	Sample	Dua	ality	Non-o	luality	Ex	tist	Non-	exist
2013	100	9	9%	91	91%	5	5%	95	95%
2014	100	7	7%	93	93%	6	6%	94	94%
2015	100	7	7%	93	93%	7	7%	93	93%
2016	100	7	7%	93	93%	9	9%	91	91%
2017	100	7	7%	93	93%	14	14%	86	86%
2018	100	6	6%	94	94%	16	16%	84	84%
2019	100	6	6%	94	94%	17	17%	83	83%
2020	100	5	5%	95	95%	19	19%	81	81%
2021	100	5	5%	95	95%	20	20%	80	80%
2013-2021	900	59	7%	841	93%	113	13%	787	87%

Table 7: Descriptive Statistics for CEOD and ECC

Note. Developed for the study

Figure 10: Frequency of CEOD and ECC



Note. Developed for the research

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## <u>CEOD</u>

The descriptive analysis presented in Figure 10 indicates a steady decline in the percentage of CEOD in the top 100 PLCs in Malaysia. The percentage was found to be 9% in 2013, and it decreased to 7% during 2014-2017, followed by a further decline to 6% in 2018-2019. Finally, the percentage reached its lowest level of 5% in 2020-2021.

In overall, based on Table 7, out of the 900 firm-year observation, only 7% of the samples didn't separate the role of Chairmand and CEO. This implied that most of the top PLCs in Malaysia have adopted the best practice outlined in Practice 1.3, Principle A of MCCG 2021 (Securities Commission Malaysia, 2021b). In other words, in term of CEO non-duality, Malaysia companies were performed better as compared to US in which 44% of the S&P 500 companies combined the two leadership roles (Kidwai, 2022).

## <u>ECC</u>

According to the findings in Table 7, out of the 900 firm-year observations, 13% of the sampled companies in Malaysia had established a compliance committee. On the other hand, Figure 10 shows a steady increase in the percentage of top PLCs in Malaysia who have established a compliance committee, from a mere 5% in 2013 to 20% in 2021. It is noteworthy that this is higher than the percentage of S&P companies that established a compliance a compliance committee in 2022, which was 15% (Ernst & Young LLP, 2022).

This is a positive indicator that the PLCs in Malaysia are taking proactive approach to ensure its operations comply with relevant regulations, laws and industry standards, mitigating legal and reputational risks as well as demonstrates their commitment to ethical and responsible business practices (Gutterman, 2020).

### 4.1.3 Independent Variables – Interval and Ratio Scale

In this study, several independent variables (IVs) were examined in addition to the dummy variables, including ID, WD, IDAC, OC, and BS, which were analysed using mean, standard deviation, minimum, and maximum values as exhibited in Table 8. The results showed that the standard deviation of the data for ID, WD, IDAC, OC and BS were all lower than their respective means, indicating that the data points for each sampling unit in the panel are closely clustered around the mean. This suggests that the variation in the data is relatively small (Al-Eid & Yavuz, 2022; Zabri et al., 2016).

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EV	EV. Commle		Ι	D		WD				IDAC			
ГІ	Sample	Mean	σ	Min	Max	Mean	σ	Min	Max	Mean	σ	Min	Max
2013	100	47.0%	12.2%	25.0%	75%	11%	10%	0%	38%	85.8%	15.7%	57.1%	100%
2014	100	46.6%	12.2%	22.2%	75%	12%	10%	0%	38%	86.5%	14.9%	60.0%	100%
2015	100	47.9%	12.2%	30.0%	75%	13%	11%	0%	44%	87.2%	14.7%	60.0%	100%
2016	100	48.8%	12.3%	30.0%	80%	16%	12%	0%	50%	87.3%	14.5%	60.0%	100%
2017	100	50.8%	12.5%	30.0%	89%	19%	12%	0%	50%	89.0%	14.2%	60.0%	100%
2018	100	52.2%	13.6%	20.0%	100%	22%	13%	0%	60%	90.0%	14.0%	60.0%	100%
2019	100	52.1%	12.5%	25.0%	90%	24%	13%	0%	50%	88.1%	15.1%	60.0%	100%
2020	100	53.2%	12.4%	30.0%	91%	25%	12%	0%	50%	88.9%	15.4%	50.0%	100%
2021	100	54.0%	12.2%	30.0%	90%	27%	12%	0%	63%	89.0%	14.9%	60.0%	100%
2013-2021	900	50.3%	12.7%	20.0%	100%	19%	13%	0%	63%	88.0%	14.8%	50.0%	100%

Table 8: Descriptive Statistics for ID, WD, IDAC, OC and BS

FV	Sampla		0	C			I	BS	
ГІ	Sample	Mean	σ	Min	Max	Mean	σ	Min	Max
2013	100	60.7%	13.4%	18.8%	87.3%	8.6	2	5	13
2014	100	59.8%	14.2%	27.5%	87.1%	8.6	2	5	14
2015	100	60.3%	14.9%	21.5%	96.9%	8.5	2	5	13
2016	100	59.5%	15.0%	20.9%	97.8%	8.6	2	5	13
2017	100	59.1%	15.1%	11.3%	88.7%	8.5	2	5	13
2018	100	59.8%	14.5%	11.0%	86.6%	8.4	2	4	12
2019	100	59.7%	14.9%	19.4%	86.5%	8.4	2	5	14
2020	100	60.6%	15.5%	19.6%	87.8%	8.7	2	5	14
2021	100	60.1%	15.6%	18.1%	87.5%	9.0	2	5	14
2013-2021	900	60.0%	14.7%	11.0%	97.8%	8.6	2	4	14

Note. Developed for the research  $\sigma$  = Standard Deviation

## <u>ID</u>

Figure 11: Mean of ID



Note. Developed for the research

The mean value of ID for the top 100 PLCs in Malaysia during the period of FY2013 to FY2016 was less than half, ranging from 46.6% to 48.8%, as evidenced by the data presented in Figure 11 and Table 8. However, after this period, the BOD of these companies started to consist mostly of INEDs, resulting in an increase in the mean value of ID, ranging from 50.8% in FY2017 to 54% in FY2021. The overall mean value of ID for the period FY 2013 – 2021 was found to be 50.3%. This suggests that there has been a good adoption of Practice 5.2, Principle A of MCCG 2021 among PLCs in Malaysia in recent years (Securities Commission Malaysia, 2021b).

Table 8 reveals that the maximum value of ID for all sampled FY is more than 75%, while the minimum value is only 20%. It is due to the outlier attributed to YTL Power International Berhad (2018) which experienced the resignation of two out of its 4 INED (out of 12 directors) at the end of FY2018. Nevertheless, these vacancies were subsequently filled

## WD

Figure 11: Mean of WD



Note. Developed for the research

The results reported in Figure 11 and Table 8 evident that the mean percentage of female board members in the top 100 PLCs in Malaysia has significantly increased from 11% in FY2013 to 27% in FY2021. This percentage surpasses the global average of 19.7% and positions Malaysia as the top Asian country in this aspect (Deloitte, 2022; Money Compass, 2022). Besides, the maximum value of WD has also increased sharply from 38% in FY2013 to 63% in FY2021. These are in line with the fact that there is a marginal improvement in relation to board gender diversity in Malaysia corporation landscape (Seah, 2021b).

Despite the notable progress made towards achieving greater gender diversity on boards in Malaysian corporations, there are still opportunities for improvement. The overall mean of WD for the period of FY 2013-2021 was a mere 19%. Additionally, the fact that the minimum value of WD for the entire sampled period of FY2013 to FY2021 was 0% indicates that there are still companies without any female representation on their BOD today. These findings point to a poor adoption rate of Practice 5.9, Principle A of MCCG 2021 in Malaysia, as none of the mean WD values for any sampled FY exceeded 30% (Securities Commission Malaysia, 2021b).

## **IDAC**

Figure 12: Mean of IDAC



Note. Developed for the research

The mean of the IDAC of top 100 PLCs in Malaysia exhibited a modest increase, fluctuating between 85.8% and 89% during the period of FY2013 to FY2021, as evidenced by Figure 11 and Table 8. The overall mean of IDAC for the period of FY2013 to FY2021 was 88%. Additionally, the minimum value of IDAC was at least 50%, with the majority of the sampled period's minimum IDAC being 60%. These findings demonstrate that PLCs in Malaysia have displayed strong compliance with Paragraph 3.05 of MMLR to establish an AC comprising a majority of INED (Bursa Malaysia Securities Berhad, 2022).

In order to conduct a more thorough analysis of the IDAC descriptive statistics, we can examine the maximum value of IDAC. As shown in Table 8, the maximum IDAC value for the entire period of FY2013 to FY2021 was 100%. This suggests that certain companies among the samples have implemented the Step-Up Practice 9.4, Principle B of MCCG 2021 by establishing an AC that solely comprises INED. This demonstrates that some PLCs in Malaysia are committed to upholding higher standards of CG (Securities Commission Malaysia, 2021b).

## <u>OC</u>

Figure 13: Mean of OC



Note. Developed for the research

The statistics presented in Figure 13 indicates that the average OC of the top 100 PLCs in Malaysia remained within the narrow range of 59.1% to 60.7% from FY2013 to FY2021.

Besides, looking at Table 8 for the same time period, we can see that the minimum values of the 900 firm-observations ranged from 11% to 27.5%. This observation highlights that a portion of these companies maintains a significantly low level of OC. According to Ganguli (2016) and Ganguli and Guha Deb (2021), having a low level of OC can be considered a malpractice. It exposes the company to the risks of "tunneling", where managers who control the company's resources may engage in "self-dealing" practices that siphon off value from the company. Without shareholders with majority stake in the company to provide a check and balance, such practices may go unchecked and lead to potential financial losses.

Table 8 reveals that during the same period, the maximum values of OC for the top 100 PLCs in Malaysia varied between 86.5% to 97.8%. This finding implies that certain companies within the sample demonstrated a remarkably high level of OC. This is unhealthy and not an ideal OC due to the problem of 'information asymmetry' and "illiquidity" where the large

shareholder group having significant control over the company can make it difficult for minorities to influence the company or receive fair value for their shares (Ganguli, 2016; Ganguli & Guha Deb, 2021).



## Figure 14: Mean of BS

BS

Note. Developed for the research

The data presented in Figure 14 and Table 8 reveal that, the average BS of the top 100 PLCs in Malaysia falls within the range of 8.4 to 9. This suggests that, on average, the number of members on the BOD for top PLCs in Malaysia is around 8 to 9. These findings suggest that the Malaysian PLCs may have an appropriate BS in accordance with the recommendations outlined in the Cadbury Report (Elad et al., 2018; Younas & Kassim, 2020).

Besides, BS varied among the top 100 PLCs in Malaysia, with the minimum value ranging from 4 in FY2018 to 5 in all other sampled FY. The maximum value of BS ranging from 12 in FY2018 to 14 in FY2019 to FY2021. In FY2013 to FY2017, the maximum BS was 13. This considerable variation in the BS suggests that PLCs in Malaysia may have different approaches to BS, which may be influenced by different scope or complexities of operations, industry, firm size, company age and other determinants (Badru et al., 2020; Mustapha et al., 2020).

## 4.2 Panel Data Analysis

It is crucial to select an appropriate estimation model in a panel data analysis, such as FEM or REM, to estimate the regression coefficients. One way to determine the appropriate model is by conducting the Hausman test, as suggested by Hausman (1978), which assesses whether there are random effects in the data panel by examining the p-value of a random cross-section (Purba & Bimantara, 2020). Hence, the following hypotheses were developed for each DV:

- $H_0$  : The REM is the most appropriate model (p-value > 0.05)
- $H_1$ : The FEM is the most appropriate model (p-value < 0.05)

In statistical analysis, if the calculated p-value (also showed as 'Prob.' in the following test results) is below the pre-determined significance level alpha 0.05, the null hypothesis is rejected, and the results obtained from the FEM are considered statistically significant and can be used for further panel data analysis. Conversely, when p-value is greater than alpha, the null hypothesis cannot be rejected, the results obtained from the REM are considered statistically significant and can be used for subsequent panel data analysis (Hausman, 1978).

## 4.2.1 Return on Equity ("ROE")

#### 4.2.1.1 Hausman Test (ROE)

#### Table 9: Hausman Test Results for ROE

Correlated Random Effects - Hausman Test Equation: Untitled Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	11.746392	7	0.1092

Note. Developed for the research

Based on the results presented in Table 9, the p-value for ROE is 0.1092, which exceeds the significance level of alpha 0.05. As a result, the null hypothesis cannot be rejected, and it is concluded that the REM is the most appropriate model for analysing the association

between the IVs and ROE in this study (Abdullah et al., 2022; Hausman, 1978).

#### 4.2.1.2 Random Effects Model (ROE)

#### Table 10: Random Effects Model for ROE

Dependent Variable: ROE Method: Panel EGLS (Cross-section random effects) Date: 02/18/23 Time: 15:37 Sample: 2013 2021 Periods included: 9 Cross-sections included: 100 Total panel (balanced) observations: 900 Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.				
CEOD ID WD IDAC OC BS ECC C	0.021681 -0.150658 0.005550 -0.008709 -0.037846 -0.008178 -0.057226 0.389049	0.068160 0.086828 0.008525 0.012747 0.100807 0.007080 0.033069 0.101134	0.318093 -1.735132 0.651034 -0.683220 -0.375430 -1.155043 -1.730496 3.846854	0.7505 0.0831)* 0.5152 0.4946 0.7074 0.2484 0.0839 * 0.0001				
Effects Specification S.D. Rho								
Cross-section random Idiosyncratic random			0.308781 0.181111	0.7440 0.2560				
	Weighted \$	Statistics						
R-squared Adjusted R-squared S.E. of regression F-statistic Prob(F-statistic)	0.009396Mean dependent varquared0.001622S.D. dependent varssion0.181592Sum squared resid1.208653Durbin-Watson stattic)0.295052		0.037044 0.181740 29.41440 1.530778					
	Unweighted	Statistics						
R-squared Sum squared resid	0.009041 117.3475	Mean depen Durbin-Wats	dent var son stat	0.193060 0.383706				

Note. Developed for the research

Correlation is significant at the \*\*\*0.01, \*\*0.05, \*0.1 level.

The equation below was derived from the results showed in Table 10:

$$ROE = 0.389 + 0.0217 CEOD - 0.1507 ID + 0.0056 WD - 0.0087 IDAC - 0.0378 OC - 0.0081 BS - 0.0572 ECC$$

The equation reveals that CEOD and WD have a positive association with ROE, while ID, IDAC, OC, BS, and ECC exhibit a negative association with ROE. However, only ID and ECC demonstrate a statistically significant correlation with ROE at significant level of 0.1, with ID having a p-value of 0.0831 and ECC having a p-value of 0.0839. These findings suggest that ID and ECC may be crucial determinants of ROE, while the other variables have a weaker or non-significant impact, as indicated by their p-values greater than 0.1. Nevertheless, further investigation is warranted to understand the relationship between these variables and ROE, and to determine their causal effects.

On the other hand, according to Okonkwo et al. (2020), coefficient of determination ("R-squared") shows the proportion of the total variation in the DV that is jointly explained by the IVs. R-squared value of 0.0094 indicates that the regression model using the 7 IVs in this study explains a relatively small proportion, approximately 0.94% of the variation in ROE. Although the R-squared value of 0.0094 may seem low, but it is not uncommon to find a low Rsquared value in a panel data analysis and it does not necessarily mean that the regression model is less valuable (Cahyadi & Purwanti, 2020). It is essential to recognize that even a small contribution to our understanding of the determinants of ROE can still have practical implications for firms, investors as well as researchers.

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## 4.2.2 Total Shareholder Return ("TSR")

## 4.2.2.1 Hausman Test (TSR)

Table 11: Hausman Test Results for TSR

Correlated Random Effects - Hausman Test Equation: Untitled Test cross-section random effects								
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.					
Cross-section random	2.290063	7	0.9421					

Note. Developed for the research

The statistical results of the Hausman test, as displayed in Table 11, reveal that the p-value associated with TSR is 0.9421, exceeding the established significance level of 0.05. Consequently, the null hypothesis cannot be rejected, and it is concluded that REM is the appropriate model for examining the correlation between the IVs and TSR (Abdullah et al., 2022; Hausman, 1978).

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#### 4.2.2.2 Random Effects Model (TSR)

#### Table 12: Random Effects Model for TSR

Dependent Variable: TSR Method: Panel EGLS (Cross-section random effects) Date: 02/18/23 Time: 15:40 Sample: 2013 2021 Periods included: 9 Cross-sections included: 100 Total panel (balanced) observations: 900 Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.			
CEOD	0.001788	0.095091	0.018803	0.9850			
ID	-0.227243	0.171233	-1.327096	0.1848			
IDAC	-0.010790	0.028232	-0.382181	0.7024			
WD	-0.012024	0.018126	-0.663373	0.5073			
OC	-0.503597	0.157383	-3.199809	0.0014	***		
BS	-0.017291	0.012188	-1.418617	0.1564			
ECC	-0.057455	0.065089	-0.882711	0.3776			
C	0.771559	0.169238	4.559005	0.0000			
Effects Specification							
	S.D.			Rho			
Cross-section random			0.179293	0.1222			
Idiosyncratic random			0.480529	0.8778			
	Weighted	Statistics					
R-squared	0.023667	Mean depen	dent var	0.094564			
Adjusted R-squared	0.016005	S.D. depend	lent var	0.483140			
S.E. of regression	0.479258	Sum square	ed resid	204.8821			
F-statistic	3.088895	Durbin-Wats	son stat	1.959248			
Prob(F-statistic)	0.003191						
	Unweighted	Statistics					
R-squared	0.035755	Mean depen	dent var	0.141939			
Sum squared resid	231.8287	Durbin-Wate	son stat	1.731515			

Note. Developed for the research

Correlation is significant at the \*\*\*0.01, \*\*0.05, \*0.1 level.

Using the outcomes provided in Table 12, we established the following equation:

$$ROE = 0.7716 + 0.0018 CEOD - 0.2272 ID - 0.012 WD - 0.0108 IDAC - 0.5036 OC - 0.0173 BS - 0.0575 ECC$$

Based on the panel data regression results showed by the above equation, it can be observed that only one IV - CEOD, has a positive association with TSR, while the other IVs display a negative association with TSR. Further analysis reveals that only one variable - OC, has a statistically significant association with TSR at alpha of 0.01, with a p-value of 0.0014. These findings suggest that OC may play a critical role in determining TSR, while the other variables have a weaker or non-significant impact, as evidenced by their pvalues greater than 0.1. Hence, the findings emphasize the importance of OC in explaining variations in TSR. Nonetheless, further research is needed to fully comprehend the association and magnitude of these associations, and to identify other potential determinants of TSR.

In addition, the model's goodness of fit is evaluated by examining the R-squared value (Caligagan et al., 2022). With an R-squared value of 0.0237, only 2.37% of the variance in TSR can be attributed to the variation in the 7 IVs examined in this study. However, even if a model shows a low R-squared value but the IVs are statistically significant (OC at significant level 0.01), valuable insights can still be gained from statistically significant IVs (Abdelkader, 2022). The degree to which an econometric equation is considered good or bad cannot be determined solely based on the magnitude of the Rsquared value. A high R-squared value does not always guarantee a good equation, just as a low R-squared value does not necessarily indicate a bad equation (Budiono & Purba, 2022; Greene, 2018).

#### 4.2.3 Tobin's Q ("TQ")

#### 4.2.3.1 Hausman Test (TQ)

Table 13:Hausman Test Results for TQ

 Correlated Random Effects - Hausman Test

 Equation: Untitled

 Test cross-section random effects

 Test Summary
 Chi-Sq. Statistic

 Cross-section random
 11.399233
 7

 0.1221

Note. Developed for the research

The Hausman test statistics results are shown in Table 13. The p-value for TQ is 0.1221, which exceeds the alpha level of 0.05.

Therefore, we cannot reject the null hypothesis. Consequently, the most suitable method for analysing the relationship between the IVs and TQ is the REM (Abdullah et al., 2022; Hausman, 1978).

#### 4.2.3.2 Random Effects Model (TQ)

#### Table 14: Random Effects Model for TQ

Dependent Variable: TQ Method: Panel EGLS (Cross-section random effects) Date: 02/18/23 Time: 17:09 Sample: 2013 2021 Periods included: 9 Cross-sections included: 100 Total panel (balanced) observations: 900 Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.			
CEOD ID WD IDAC OC	-0.119491 -0.853381 0.079728 -0.093467 -0.452755	0.376297 0.469606 0.045973 0.068596 0.551694	-0.317545 -1.817229 1.734236 -1.362562 -0.820663	0.7509 0.0695 0.0832 0.1734 0.4121			
ECC C	0.045754 0.098629 2.597048	0.038522 0.178849 0.558367	1.187721 0.551462 4.651153	0.2353 0.5815 0.0000			
Effects Specification S.D. Rho							
Cross-section random Idiosyncratic random			1.912273 0.969599	0.7955 0.2045			
	Weighted	Statistics					
R-squared Adjusted R-squared S.E. of regression F-statistic Prob(F-statistic)	0.011378 0.003620 0.971987 1.466584 0.175588	Mean dependent var S.D. dependent var Sum squared resid Durbin-Watson stat		0.349280 0.973752 842.7257 0.563118			
	Unweighted	Statistics					
R-squared Sum squared resid	-0.004332 4213.867	Mean depen Durbin-Wats	dent var son stat	2.095890 0.112617			

Note. Developed for the research

Correlation is significant at the \*\*\*0.01, \*\*0.05, \*0.1 level.

From the findings presented in Table 14, we constructed the equation below:

TQ = 2.597 - 0.1195 CEOD - 0.8534 ID + 0.0797 WD - 0.0935 IDAC - 0.4528 OC + 0.0458 BS + 0.0986 ECC

Based on the equation, it can be inferred that WD, BS, and ECC are positively related to TQ, while CEOD, ID, IDAC and OC exhibit a negative association with TQ. However, only ID and WD demonstrate a statistically significant association with TQ at significant level of 0.1, with p-values of 0.0695 and 0.0832 respectively. These results suggest that ID and WD may play an essential role in determining TQ, while the remaining variables have a weaker or negligible influence, as evidenced by their p-values exceeding 0.1. Nonetheless, further research is necessary to comprehend the interplay between these constructs and TQ, as well as to establish the magnitude and direction of their causal effects.

Furthermore, the result of the panel data regression analysis has yielded an R-squared value of 0.0114 to measure the extent to which IVs in the model able to explain the TQ (Nurdan et al., 2019). Specifically, the IVs of CEOD, ID, WD, IDAC, OC, BS, and ECC explain only 1.14% of the variation in TQ. However, it is important to note that a low R-squared does not necessarily mean that the regression analysis is not informative, as it is possible for the model to still have statistical and practical significance as well as provide valuable insights into the relationship between the IVs and TQ. Besides, R-squared of 0.0114 may appear low but not a major issue as Ogbebor and Ashahak (2021) indicated, the coefficient of determination for panel data studies tends to be low due to the presence of unobserved heterogeneity effects, which is a common feature of such analyses.

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## 4.3 Conclusion

Chapter 4 presents a thorough discussion and in-depth elaboration of the research findings obtained from the descriptive and panel data regression analysis carried out to investigate the relationships between CG practices and the performance of the Malaysia's top 100 PLCs. The ensuing Chapter 5 is going to provide an exhaustive scrutiny of the results derived from the analysed outcomes.

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## CHAPTER 5

## **DISCUSSION AND CONCLUSION**

## **5.0 Introduction**

In this chapter, hypothesis testing results will be presented and thoroughly discussed, highlighting their significant managerial and theoretical implications. The research's limitations will also be identified, and recommendations will be proposed for studies to be conducted in future. In conclusion, a concise summary will be presented as the final remarks of this investigation.

## **5.1 Hypothesis Testing**

Section 5.1 explains the findings and interpretation of the regression outputs obtained from the panel data regression analysis.

## 5.1.1 Summary of Hausman Test Results for ROE, TSR and TQ

	ROE	TSR	TQ
p-value	0.1092	0.9421	0.1221
Model	Random Effect	Random Effect	Random Effect

Table 15: Summary of Hausman Test Results

Note. Developed for the research

Table 15 presents a summary of the Hausman tests conducted for the panel data regression analysis of the variables ROE, TSR, and TQ. The results indicate that the p-values for all three variables exceeded 0.05. Hence, it can be concluded that the REM is the most suitable model for analyzing the association of the IVs and DVs in this study.

# 5.1.2 Summary of p-value (Panel Data Regression Analysis) for ROE, TSR and TQ

		Probability Value	8
	ROE	TSR	TQ
(Constant)	0.0001	0.0000	0.0000
CEOD	0.7505 (+)	0.9850 (+)	0.7509 (-)
ID	0.0831 (-) *	0.1848 (-)	0.0695 (-) *
WD	0.5152 (+)	0.5073 (-)	0.0832 (+) *
IDAC	0.4946 (-)	-0.7024 (-)	0.1734 (-)
OC	0.7074 (-)	0.0014 (-) ***	0.4121 (-)
BS	0.2484 (-)	0.1564 (-)	0.2353 (+)
ECC	0.0839 (-) *	0.3776 (-)	0.5815 (+)

Table 16: Summary of p-value for ROE, TSR and TQ

Note. Developed for the research

Correlation is significant at the \*\*\*0.01, \*\*0.05, \*0.1 level.

Table 16 provides a summary of the panel data regression analysis results, which indicate statistically significant correlations at an alpha of 0.1 for ID-ROE, ECC-ROE, ID-TQ, and WD-TQ. Additionally, a significant correlation at a significance level of 0.01 was found between OC-TSR.

## 5.1.3 Summary of Hypothesis Testing

Table 17: Summary	of Hypothesis Testing

Research Question		Research Hypothesis	n-value	Result	ß
Co		Statement	p-value	Result	Р
Is there any significant	H1ceoda	CEOD has a significant correlation with the performance of top 100 PLCs in Malaysia (ROE).	0.7505	NS	0.0217
correlationbetweenCEOduality with performanceof top	H1ceodb	CEOD has a significant correlation with the performance of top 100 PLCs in Malaysia (TSR).	0.9850	NS	0.0018
100 PLCs in Malaysia?	H1 <sub>CEODc</sub>	CEOD has a significant correlation with the performance of top 100 PLCs in Malaysia (TQ).	0.7509	NS	-0.1195
Does board independence	H1 <sub>IDa</sub>	ID has a significant correlation with the performance of top 100 PLCs in Malaysia (ROE).	0.0831*	S	-0.1507
significantly affect the performance of top 100 PLCs in	H1 <sub>IDb</sub>	ID has a significant correlation with the performance of top 100 PLCs in Malaysia (TSR).	0.1848	NS	-0.2272
Malaysia?	H11Dc	ID has a significant correlation with the performance of top 100 PLCs in Malaysia (TQ).	0.0695*	S	-0.8534

Does board gender diversity	H1wDa	WD has a significant correlation with the performance of top 100 PLCs in Malaysia (ROE).	0.5152	NS	0.0056
significantlyaffecttheperformance of top 100 PLCs in	H1wdb	WD has a significant correlation with the performance of top 100 PLCs in Malaysia (TSR).	0.5073	NS	-0.0120
Malaysia?	H1 <sub>WDc</sub>	WD has a significant correlation with the performance of top 100 PLCs in Malaysia (TQ).	0.0832*	S	0.0797
Does independent audit committee significantly affect the performance of top 100 PLCs in Malaysia?	H1 <sub>IDACa</sub>	IDAC has a significant correlation with the performance of top 100 PLCs in Malaysia (ROE).	0.4946	NS	-0.0087
	H1idacb	IDAC has a significant correlation with the performance of top 100 PLCs in Malaysia (TSR).	0.7024	NS	-0.0108
	H1IDACc	IDAC has a significant correlation with the performance of top 100 PLCs in Malaysia (TQ).	0.1734	NS	-0.0935
Does ownership concentration	H1oca	OC has a significant correlation with the performance of top 100 PLCs in Malaysia (ROE).	0.7074	NS	-0.0378
significantly affect the performance of top 100 PLCs in	Н1ось	OC has a significant correlation with the performance of top 100 PLCs in Malaysia (TSR).	0.0014***	S	-0.5036
Malaysia?	H1occ	OC has a significant correlation with the performance of top 100 PLCs in Malaysia (TQ).	0.4121	NS	-0.4528

Does board size significantly influence the performance of top 100 PLCs in Malaysia?	H1 <sub>BSa</sub>	BS has a significant correlation with the performance of top 100 PLCs in Malaysia (ROE).	0.2484	NS	-0.0082
	H1 <sub>BSb</sub>	BS has a significant correlation with the performance of top 100 PLCs in Malaysia (TSR).	0.1564	NS	-0.0173
	H1 <sub>BSc</sub>	BS has a significant correlation with the performance of top 100 PLCs in Malaysia (TQ).	0.2353	NS	0.0458
Is there any significant relationship between existence of compliance committee with company performance of top 100 PLCs in Malaysia?	H1 <sub>ECCa</sub>	ECC has a significant correlation with the performance of top 100 PLCs in Malaysia (ROE).	0.0839*	S	-0.0572
	Н1ессь	ECC has a significant correlation with the performance of top 100 PLCs in Malaysia (TSR).	0.3776	NS	-0.0575
	H1ECCc	ECC has a significant correlation with the performance of top 100 PLCs in Malaysia (TQ).	0.5815	NS	0.0986

Note. Developed for the research

Correlation is significant at the \*\*\*0.01, \*\*0.05, \*0.1 level.

 $\beta$  = Coefficient (also called parameter estimates)

S = Sufficient evidence to reject the null hypothesis, thus alternative hypothesis is supported.

NS = Insufficient evidence to reject the null hypothesis, thus alternative hypothesis is not supported

## Analysis of CEOD on ROE (H1<sub>CEODa</sub>):

Based on the results of the panel data regression analysis, it can be concluded that there is insufficient evidence to support the alternative hypothesis (H1<sub>CEODa</sub>) that CEOD has a significant relationship with the performance of the top 100 PLCs in Malaysia as measured by ROE. This can be observed from the fact that the p-value for the CEOD-ROE regression is 0.7505, which is greater than the level of significance of 0.1. Hence, the null hypothesis cannot be rejected, indicating an insignificant association between CEOD and ROE. Additionally, the coefficient of 0.0217 suggests that any relationship between CEOD and ROE, if it exists, is positive but very weak. Therefore, the results suggest that CEOD isn't a significant predictor of the company performance in term of ROE, which aligned with numerous past studies (Abdullah & Tursoy, 2023; Aktan et al., 2018; Alshirah et al., 2022a; Balagobei & Udayakumara, 2017; El-Chaarani & Abraham, 2022; Kabir et al., 2021; Lim & Kassim, 2022; Mititean, 2022; Peng et al., 2021; Puni & Anlesinya, 2020; Quddoos et al., 2020).

## Analysis of CEOD on TSR (H1<sub>CEODb</sub>):

The results of the panel data regression analysis indicate that there is insufficient evidence to support the alternative hypothesis (H1<sub>CEODb</sub>) that CEOD has a significant relationship with the TSR of the top 100 PLCs in Malaysia. The p-value of CEOD-TSR regression is 0.985, which is much higher than the 0.1 alpha level suggests that the association between CEOD and TSR is statistically insignificant. The coefficient of 0.0018 suggests that any correlation between CEOD and TSR, if it exists, is direct but insignificant. Therefore, it appears that CEOD isn't a substantial factor of the company performance pertaining to TSR which is consistent with the research findings of Aktan et al. (2018).

## Analysis of CEOD on TQ (H1<sub>CEODc</sub>):

According to the outcomes of the analysis, there is inadequate substantiation to support the alternative hypothesis (H1<sub>CEODc</sub>) that CEOD has a significant relationship with the performance of the top 100 PLCs in Malaysia as gauged by TQ. The p-value for the CEOD-TQ regression is 0.7509, which

is greater than the significance threshold of 0.1 suggests that the correlation between CEOD and TQ is statistically insignificant. Moreover, the coefficient of -0.1195 designates that if there is any association between CEOD and TQ, it is negative and negligible. Thus, the results suggest that CEOD isn't a significant determinant of the company performance in terms of TQ. These findings are in agreement with previous studies by Puni and Anlesinya (2020), Quddoos et al. (2020), Sehrawat et al. (2020) and Velásquez and Cortés (2020) which also reported an insignificant relationship between CEOD and TQ.

## Analysis of ID on ROE (H1<sub>IDa</sub>):

The panel data regression analysis conducted provides some evidence to reject the null hypothesis and support the alternative hypothesis (H1<sub>IDa</sub>) that board independence, as represented by ID has a significant relationship with the performance of the top 100 Malaysian PLCs, as evaluated by their ROE. This is demonstrated by the observed p-value of 0.0831, which is slightly below the conventional level of significance of 0.1. Surprisingly, the negative coefficient of -0.1507 suggests that there is a significant inverse correlation between ID and ROE in which an increase of one INED may lead to a reduction of ROE by 15.07%. This finding is aligned with the research conducted by Aktan et al. (2018), Habtoor (2022b), Onyekwere and Babangida (2021) and Peng et al. (2021), wherein they reported a significant opposite association between ID and ROE.

## Analysis of ID on TSR (H1<sub>IDb</sub>):

The panel data regression analysis conducted implies that there is insufficient evidence to support the alternative hypothesis (H1<sub>IDb</sub>) that board independence, as represented by ID has a significant relationship with the performance of the top 100 Malaysian PLCs, as measured by TSR. The observed p-value of 0.1848 exceeds the 0.1 alpha level, suggests that the association between ID and TSR is not statistically significant. Additionally, the negative coefficient of -0.2272 implies that any potential association between ID and TSR is weak and negative. Therefore, the findings suggest that ID may not be a significant determinant of the performance of the top

100 Malaysian PLCs in Malaysia pertaining to TSR. This is in agreement with the research conducted by Aktan et al. (2018) who observed an insignificant relationship between ID and TSR.

## Analysis of ID on TQ (H1<sub>IDc</sub>):

The panel data regression analysis conducted provides sufficient evidence to reject the null hypothesis and support the alternative hypothesis (H1<sub>IDc</sub>) that board independence, as represented by ID has a significant relationship with the performance of the top 100 Malaysian PLCs, as quantified by their TQ. This is demonstrated by the observed p-value of 0.0695, a value that marginally below the significance threshold of 0.1. Additionally, the negative coefficient of -0.8534 indicates a significant inverse correlation between ID and TQ, where an increase of one INED may lead to a reduction of TQ by 85.34%. Therefore, these findings suggest that ID is a significant factor of the company performance measured by TQ. The observed significant negative relationship between board independence and TQ is in line with the findings reported by Almaqtari et al. (2022), Azeez et al. (2020) and Fariha et al. (2022) in their respective studies.

## Analysis of WD on ROE (H1<sub>WDa</sub>):

The panel data regression analysis conducted pointed out that there is insufficient evidence to support the alternative hypothesis (H1<sub>WDa</sub>) that gender diversity, as represented by WD has a significant relationship with the performance of the top 100 PLCs in Malaysia, as appraised by their ROE. This is showed by the observed p-value of 0.5152, which is greater than the conventional level of significance of 0.1. Therefore, the null hypothesis cannot be rejected, demonstrating that there is insignificant correlation between WD and ROE. Additionally, the coefficient of 0.0056 suggests that any relationship between WD and ROE, if it exists, is positive but very weak. The findings of the present study indicate that gender diversity, as represented by the variable under investigation, is not a statistically significant predictor of the performance of companies in terms of ROE. This outcome is consistent with the research outcomes reported by Chen et al. (2021), Garg and Tanwer (2022) and Kabir et al. (2021).

## Analysis of WD on TSR (H1<sub>WDb</sub>):

Based on the panel data regression analysis, it can be concluded that there is insufficient evidence to support the alternative hypothesis (H1<sub>WDb</sub>) that there is an obvious relationship between the gender diversity measured by WD, and the company performance gauged by TSR, for the top 100 PLCs in Malaysia. WD-TSR regression shows a p-value of 0.5073, which exceeds the alpha level of 0.1, demonstrating that the null hypothesis cannot be rejected. Therefore, it can be concluded that there is no significant relationship between WD and TSR. Moreover, the coefficient of -0.012 suggests that if there is any correlation between WD and TSR, it is negative and negligible. Therefore, the results suggest that there is no significant association between WD and TSR, and that WD is not a significant factor of company performance. This is in agreement with the study conducted by Fariha et al. (2022), Havrylyshyn et al. (2022) and Kim and Sul (2021) which didn't find any evidence that gender diversity impacted TSR.

## Analysis of WD on TQ (H1<sub>WDc</sub>):

The panel data regression analysis suggests sufficient evidence to reject the null hypothesis and support the alternative hypothesis (H1<sub>WDc</sub>) that gender diversity, as represented by WD, has a notable association with the performance of top 100 PLCs in Malaysia, as measured by their TQ. This is proved by the observed p-value of 0.0832, a result that is slightly below the significance threshold of 0.1. Besides, the coefficient of 0.0797 suggests that there is a significant direct association between WD and TQ in which an increase of one women director on BOD may bring an improvement in ROE by 7.97%. This finding is in line with prior research conducted by Chang et al. (2021), Jeet (2020), Kim and Sul (2021) and Titilayo et al. (2022) which documented a statistically significant positive association between WD and TQ.

## Analysis of IDAC on ROE (H1<sub>IDACa</sub>):

The panel data regression analysis conducted indicates insufficient evidence to support the alternative hypothesis ( $H1_{IDACa}$ ) that the IDAC has a significant relationship with the performance of the top 100 PLCs in Malaysia, as evaluated by their ROE. The observed p-value of 0.4946 is greater than the conventional level of significance of 0.1, indicating that the null hypothesis cannot be rejected. Therefore, it can be concluded that there is insignificant correlation between IDAC and ROE. Moreover, the negative coefficient of -0.0087 suggests that any relationship between IDAC and ROE, if it exists, is negative but very weak. In summary, the present study suggests that independent AC, as represented by the variable under investigation, is not a statistically significant predictor of the performance of companies in terms of ROE. These findings are in line with the outcomes reported in prior studies conducted by Abdullah and Tursoy (2023), Agyemang (2020), Fariha et al. (2022), Haris et al. (2019), Hossain et al. (2022) and Shrivastav (2022).

## Analysis of IDAC on TSR (H1<sub>IDACb</sub>):

According to the results of the panel data regression analysis, there appears to be insufficient empirical support for the alternative hypothesis (H1<sub>IDACb</sub>) that the IDAC has a significant association with the performance of top 100 PLCs in Malaysia, as gauged by their TSR. The p-value for the IDAC-TSR regression is 0.7024, a value exceeding 0.1 alpha indicating that the null hypothesis cannot be rejected. The coefficient of -0.0108 indicates that there is a negligible negative correlation between IDAC and TSR. Therefore, the results suggest that there is no significant correlation between IDAC and TSR, and that independent AC is not a significant factor of company performance pertaining to TSR, which aligned with the results of previous studies (Abanyam & Isah, 2021; Fariha et al., 2022).

## Analysis of IDAC on TQ (H1<sub>IDACc</sub>):

According to the outcomes of the panel data regression analysis, there is inadequate empirical support to validate the alternative hypothesis (H1<sub>IDACc</sub>) that IDAC significantly impacting the performance of the top 100 PLCs in Malaysia, as proxied by their TQ. The observed p-value of 0.1734 for the IDAC-TQ regression is greater than the significance threshold of 0.1, indicating that the association between IDAC and TQ is not statistically significant. Furthermore, the negative coefficient of -0.0935 shows that if

there is any correlation between IDAC and TQ, it is negative and insignificant. Therefore, the results propose that independent AC is not a significant determinant of the company performance measured by TQ. These finding is in agreement with the results of previous studies conducted by Chang et al. (2021), Fariha et al. (2022) and Kim and Sul (2021) who have drawn the conclusion that independent AC may not have a significant influence on company performance in term of TQ.

## Analysis of OC on ROE (H1<sub>OCa</sub>):

The panel data regression analysis conducted indicates insufficient evidence to support the alternative hypothesis (H1o<sub>Ca</sub>) that OC has a significant relationship with the performance of the top 100 PLCs in Malaysia, as quantified by their ROE. The p-value of 0.7074 is greater than the conventional level of significance of 0.1, suggesting that the null hypothesis cannot be rejected. Thus, the results suggest that OC is not a significant determinant of company performance in terms of ROE. Furthermore, the negative coefficient of -0.0378 implies that any relationship between OC and ROE, if it exists, is negative but very weak. Overall, these findings indicate that OC is not a statistically significant predictor of company performance as measured by ROE, which is in line with the outcomes reported in previous research conducted by Aktan et al. 2018, El-Chaarani and Abraham (2022) and Rudhiningtyas et al. (2022).

## Analysis of OC on TSR (H1<sub>OCb</sub>):

Based on the results of the panel data regression analysis, there is empirical support to accept the alternative hypothesis (H1<sub>OCb</sub>) that OC has a significant relationship with the performance of the top 100 PLCs in Malaysia, as measured by TSR. The null hypothesis can be rejected as the p-value of 0.0014 is less than the 0.01 alpha level. The negative coefficient of -0.5636 showing that there is a significant inverse relationship between OC and TSR, implying that a 1% increase in OC will lead to a 0.56% reduction in TSR. To the best of researcher's knowledge, there is limited prior research that has obtained similar results regarding the significant negative relationship between OC and TSR.

## Analysis of OC on TQ (H1<sub>OCc</sub>):

The panel data regression analysis results indicate a lack of sufficient empirical evidence to corroborate the alternative hypothesis (H1occ) that OC has a significant relationship with the performance of the top 100 PLCs in Malaysia, as evaluated by their TQ. The observed p-value of 0.4121 for the OC-TQ regression is greater than the significance threshold of 0.1, indicating that the null hypothesis cannot be rejected. Moreover, the negative coefficient of -0.4528 proposes that any association between OC and TQ, if it exists, is negative and insignificant. Therefore, it can be concluded that OC is not a significant factor of the company performance in terms of TQ. These findings are in agreement with the outcomes reported in previous studies conducted by Al-Farooque et al. (2019), Nashier and Gupta (2020), Saidat et al. (2019) and Wu et al. (2022), which have shown that OC may not have a significant impact on company performance in terms of TQ.

## Analysis of BS on ROE (H1<sub>BSa</sub>):

According to the findings of the panel data regression analysis, there is a dearth of adequate empirical evidence to substantiate the alternative hypothesis (H1<sub>BSa</sub>) that BS has a significant relationship with the performance of the top 100 PLCs in Malaysia, as measured by their ROE. The observed p-value of 0.2484 is exceeding the conventional level of significance of 0.1, indicating that the null hypothesis cannot be rejected. Thus, it can be inferred that there is a lack of significant association between BS and ROE. Furthermore, the negative coefficient of -0.0082 suggests that if any relationship exists, it is negative and negligible. In short, this study indicates that BS is not a significant predictor of the performance of companies in terms of ROE. These findings are in agreement with a number of recent past studies in the field of CG (Abdullah & Tursoy, 2023; Dwaikat et al., 2021; Fariha et al., 2022; Haris et al., 2019; Hossain et al., 2022; Lim & Kassim, 2022; Peng et al., 2021; Quddoos et al., 2020).

## Analysis of BS on TSR (H1<sub>BSb</sub>):

Based on the results of the panel data regression analysis, it is inconclusive whether BS has a significant relationship with the performance of the top 100 PLCs in Malaysia reflected by their TSR (H1<sub>BSb</sub>). The p-value of 0.1564 for the BS-TSR regression is greater than the alpha level of 0.1, indicating that the null hypothesis cannot be rejected. Moreover, the coefficient of - 0.0173 indicates an insignificant opposite correlation between BS and TSR. Therefore, the study suggests that there is lack of empirical support to conclude that BS is a significant determinant of company performance in terms of TSR. It should be noted that similar results have been obtained in prior research conducted by Aktan et al. (2018), indicating that the relationship between BS and TSR is not significant.

## Analysis of BS on TQ (H1<sub>BSc</sub>):

The panel data regression analysis reveals a lack of sufficient empirical evidence to substantiate the alternative hypothesis (H1<sub>BSc</sub>) that the BS has a significant relationship with the performance of the top 100 PLCs in Malaysia, as measured by their TQ. The observed p-value of 0.2353 for the BS-TQ regression is larger than the significance threshold 0.1, indicating that the null hypothesis cannot be rejected. The positive coefficient of 0.0458 indicates a weak positive association between BS and TQ. However, the correlation is not statistically significant. Thus, it can be concluded that BS is not a significant factor of company performance pertaining to TQ. This finding is in agreement with previous studies conducted by Aifuwa et al. (2020), Azeez et al. (2020), Fahad and Busru (2021), Hossain et al. (2022), Ng et al. (2021) and Ozdemir and Kilincarslan (2021) who have also concluded that BS may not have a significant impact on company performance measured by TQ.

## Analysis of ECC on ROE (H1<sub>ECCa</sub>):

The results of the panel data regression analysis suggest a degree of empirical support for the alternative hypothesis ( $H1_{ECCa}$ ) that the existence of a compliance committee has a significant association with the performance of top 100 PLCs in Malaysia, as measured by their ROE. The

observed p-value of 0.0839 is below the significance level of 0.1, suggesting that the null hypothesis can be rejected. The negative coefficient of -0.0572 indicates a negative relationship between ECC and ROE in which the presence of an ECC (coded as 1) is associated with a decrease of 5.72% in the ROE when compared to the reference group, which is the absence of an ECC (coded as 0). To the best of the researcher's knowledge based on a thorough review of the literature, it appears that there is a dearth of quantitative studies that have documented a significant contraly relationship between the ECC and ROE. Consequently, this finding is considered to be a significant contribution to the existing body of knowledge on this topic.

## Analysis of ECC on TSR (H1<sub>ECCb</sub>):

Based on the panel data regression analysis, the available empirical evidence is inconclusive regarding the support for the alternative hypothesis (H1<sub>ECCb</sub>) that the ECC has a significant relationship with the performance of the top 100 PLCs in Malaysia, as measured by their TSR. The observed p-value of 0.3776 is greater than the alpha level of 0.1, suggesting that the null hypothesis cannot be rejected. Additionally, the coefficient of -0.0575 indicates an insignificant negative correlation between ECC and TSR. Therefore, the study suggests that there is insufficient evidence to conclude that the ECC will impact on company performance in terms of TSR. It is noteworthy that, based on the current literature review, there seems to be a paucity of prior quantitative studies that have also reported an insignificant association between the ECC and TSR. This underscores the importance of the present study in contributing to the extant literature on the subject matter.

## Analysis of ECC on TQ (H1<sub>ECCc</sub>):

The findings of the panel data regression analysis indicate a dearth of sufficient empirical evidence to substantiate the alternative hypothesis (H1<sub>ECCc</sub>) that the ECC has a significant relationship with the performance of the top 100 PLCs in Malaysia, as measured by their TQ. The observed p-value of 0.5815 for the ECC-TQ regression is larger than the significance threshold of 0.1, indicating that the null hypothesis cannot be rejected. The positive coefficient of 0.0986 suggests a negligible positive relationship

between the existence of a compliance committee and TQ, but this correlation is not statistically significant. Therefore, it can be concluded that the existence of a compliance committee is not a significant factor in company performance related to TQ. To the best of the researcher's knowledge, there seem to be a scarcity of empirical studies that have reported an insignificant relationship between the ECC and TQ. Therefore, this study's findings are notable as they contribute to the existing literature on this topic and suggest that the ECC may not be a significant factor in determining company performance concerning TQ.

## **5.2 Summary of Tests**

Section 5.2 presents a comprehensive summary of the descriptive and panel data analyses, which will be followed by a discussion on the findings to provide a deeper understanding of the outcomes.

## **5.2.1 Descriptive Analysis**

The research is aided by descriptive analysis, which involves describing, summarizing, or depicting collected data in a constructive manner (Reddy, 2021). The descriptive statistics derived from 900 firm-observation samples unveiled an overview of the adoption of CG practices and the performance of the top 100 PLCs in Malaysia during the period spanning FY2013 to FY2021.

## **5.2.1.1 Dependent Variables**

The descriptive analysis conducted for DVs of this study revealed distinct trends in the mean values of the performance measures under consideration.

Both backward looking performance measures namely ROE – accounting-based measure (Naeem et al., 2022) and TSR – market-based measure (Burney, 2018) have exhibited a decreasing trend

with some fluctuations observed along the way. Specifically, the mean value for ROE fluctuated between 20% in FY2013 and 19% in FY2016, before decreasing to 18.2% in FY2019, and slightly increasing to 19.2% in FY2021. In contrast, the mean value for TSR sharply fluctuated from 26.5% in FY2013 declined to 5.8% in FY2016 with a subsequently substantial resurgence to 32.1% in FY2017, before experiencing a significant drop to 3.6% in FY2018. It eventually increased to 14.7% in FY2021. Overall, the analysis reveals a complex trend for TSR, marked by volatile fluctuations and sharp declines, while ROE exhibited a more stable trend with a gradual decrease over time.

On the other hand, market-based forward-looking measure – TQ (Naidu et al., 2022) shows a gradually stable trend with a marginal incline. Starting from 2.07 in FY2013, it increased slightly to 2.08 in FY2014, then decreased to 1.93 in FY2016. However, since FY2017, TQ has been showing a gradual increase from values of 2.17 in FY2017 to 2.18 in FY2020, reaching its highest point of 2.19 in FY2018. Although there was a slight dip to 2.11 in FY2021, the overall trend remained stable with a slight increase in TQ in recent years.

From the descriptive statistic, two inferences can be drawn. Firstly, COVID-19 pandemic and Movement Control Order ("MCO") leading to economic recession may be the reason of the decreasing trends observed from two backward-looking measures namely ROE and TSR. The pandemic has caused disruptions to global markets, supply chains, and consumer behaviour, leading to sharp decline in consumption and financial challenges for many businesses including those in Malaysia (Ajmal et al., 2021; Landau, 2020). The sharp fluctuations in TSR could also be attributed to the volatile stock market conditions caused by the pandemic (Gamal et al., 2021; Mehmood et al., 2021). Second, TQ showed a marginal incline trend. A possible justification for this could be the optimism in the market due to the gradual resolution of the COVID-19 pandemic. TQ is a

forward-looking measure which reflects future prospects (Dante & Ramos, 2022; Liu et al., 2023). With the ease of restrictions and the economy recovers, investors may be anticipating improved future profitability and growth prospects for companies, leading to an increase in TQ (Lee, 2021; Mohamed, 2023; Ong, 2021).

However, it is essential to acknowledge the possibility of other factors that may have contributed to these trends. Thus, a more indepth and detailed analysis may be necessary to fully comprehend the complex interplay of various economic, social, and political factors influencing these metrics.

## **5.2.1.2 Independent Variables**

The findings of the descriptive analysis indicate that the adoption of best practices in Malaysia's large companies, specifically the separation of the roles of Chairman and CEO, is commendable. The results reveal that only a small proportion of companies, accounting for a mere 5% in FY2021, engage in CEOD. This trend suggests that the majority of companies in Malaysia's top 100 PLCs prioritize effective CG by adhering to best practices in their management structures. This corresponds with the Report of CG Monitor published by Securities Commission Malaysia (2021c), which states that the level of adoption for Practice 1.3, Principle A of MCCG 2021 is at 90.2%. The high adoption rate of this practice further reinforces the notion that Malaysia's large companies are committed to implementing effective CG practices, including the separation of the roles of Chairman and CEO.

On the other hand, analysis of the mean value of ID of top 100 PLCs in Malaysia shows a steady increase from 47% in FY2013 to 54% in FY2021. This descriptive statistic is consistent with the parameter in Report of CG Monitor published by Securities Commission Malaysia (2021c) which reveals 51.4% of the board positions in Malaysian's PLCs are held by an INED. This indicates that
Malaysian companies are recognizing the importance of having independent BOD as an effective monitoring mechanism to provide objective assessment regarding company's operations and performance, in line with Practice 5.2, Principle A of MCCG 2021, and compliance with Paragraph 3.04 of MMLR (Bursa Malaysia Securities Berhad, 2022; Ferri et al., 2023; Roy & Alfan, 2022; Securities Commission Malaysia, 2021b; Xing et al., 2022). However, despite the positive trend, minimum value of ID ranged within 20% to 30% indicating some companies still fall short of the recommended level, highlighting the need for continued efforts to improve CG practices.

The descriptive analysis of WD of the top 100 PLCs in Malaysia reveals a positive trajectory over the past 9 years. The mean value of WD has steadily increased from 11% in FY2013 to 27% in FY2021, indicating that Malaysian companies are recognizing the importance of gender diversity on boards (Bernama, 2022). However, the minimum value of WD has remained at 0% from FY2013 to FY2021, implying that some companies still maintain all-male boards. Furthermore, it is worth noting that the population parameter for WD in all PLCs is only 17.7% in 2021. 82.8% of the PLCs in Malaysia has departure from the Practice 5.9, Principle A of MCCG 2021 (Securities Commission Malaysia, 2021b, 2021c). Thus, there is still room for improvement in achieving greater gender diversity on BOD.

The mean value of IDAC in the top 100 PLCs in Malaysia has shown a consistent upward trend from 85.8% in FY2013 to 89.0% in FY2021. The minimum value of IDAC has remained above the majority threshold set by the Paragraph 3.05 of MMLR (Bursa Malaysia Securities Berhad, 2022). The maximum value of 100% for IDAC throughout the entire period FY2013 to FY2021 indicates that some companies have adopted Step-Up Practice 9.4, Principle B of MCCG 2021, while others still have room for improvement in CG practices pertaining to independent AC (Securities Commission Malaysia, 2021b). This is in-line with the population parameter revealed by SC that 65.3% of PLCs on BURSA have an audit committee that comprises solely INED in 2021 (Seah, 2021a)

The OC in the top 100 PLCs in Malaysia has remained relatively stable over the past decade, with the mean value hovering between 59% and 61%. A congruent finding from a study by Karim et al. (2022) reveals a similar descriptive statistic of 60.23% for the OC in Malaysian PLCs. Although neither the MCCG nor the MMLR stipulate a specific threshold for OC levels, the descriptive statistic of OC suggest that, on average, the top PLCs in Malaysia are effectively maintaining an optimal OC level (Ganguli & Guha Deb, 2021).

The mean value of BS in the top 100 PLCs in Malaysia has remained relatively stable over the period from FY2013 to FY2021, ranging from 8.4 to 9.0. The maximum and minimum values of BS were 14 and 4, respectively, within the same period. However, it is noteworthy that there are no specific guidelines for BS in the MCCG or MMLR. Therefore, it may be difficult to make any conclusive statements about the optimal board size for the top PLCs in Malaysia based on these descriptive statistics alone. Although there are some recommended BS being suggested by Cadbury Report (1992) and OECD (2010). However, there is no "one size fits all" when it comes to populating the BOD. Inappropriate BS will result in the BOD becoming dysfunctional. Therefore, BS must be optimal based on the firm structure, size and operations of a particular company (Evanson, 2022).

The findings of the descriptive analysis reveal that the trend of having an ECC among the top 100 PLCs in Malaysia has been increasing obviously from a mere 5% in FY2013 to 20% in FY2021 suggests a shift towards a more proactive approach to compliance management. This indicates a growing recognition among Malaysian companies on the importance of having a dedicated committee to ensure compliance with regulatory and legal requirements. Out of the 113 firm-observations with ECC, a majority of 62% belong to the Financial Services Sectors. This trend is consistent with the global practice of strengthening compliance practices in financial institutions, driven by intensified regulatory scrutiny (Baker McKenzie, 2021). The growing adoption of ECCs is a positive development for CG in Malaysia, as it demonstrates a commitment to ethical business practices and regulatory compliance (Tworek, 2019).

### 5.2.2 Inferential Analysis - Panel Data Analysis (9 Years Analysis)

In this study, the findings of the panel data regression analysis provide empirical support regarding the association of CG best practices and the performance of the top 100 PLCs in Malaysia which were selected based on their market capitalization as at 31 Dec 2022.

The findings of the panel data analysis in this study do not offer conclusive evidence to establish a statistically significant relationship between CEOD, IDAC, and BS with company performance, as measured by ROE, TSR, and TQ. Although the analysis did not yield significant results, it is premature to assert that no relationship exists. Additional research or a more comprehensive dataset may be necessary to ascertain the strength and nature of any potential relationship.

On the other hand, the results of this study suggest that ownership concentration (OC) has a significant and negative impact on TSR, but not on ROE and TQ. This underscores the importance of effective CG mechanisms to ensure a balanced distribution of power and control among shareholders, which may help mitigate potential conflicts of interest and promote sustainable performance.

Besides, the results of this study indicate that the ID and the ECC are significantly and negatively related to ROE, while ID has an insignificant relationship with TSR and ECC is insignificant with both TSR and TQ. One possible explanation for these findings is that appointing INED and establishing a compliance committee incurs costs that directly reduce profits, leading to a lower ROE. However, ID and ECC are generally considered good CG practices in which ID provides checks and balances (Singh, 2021) while ECC ensures compliance in company operations (Juanda et al., 2019). As such, investors tend to prefer companies that have ID and ECC, which may indirectly lead to better performance as measured by market-based metrics such as TSR and TQ. Overall, these results suggest that companies should carefully weigh the costs and benefits of implementing these practices and consider their specific circumstances when making decisions regarding CG.

Moreover, panel data analysis in this study did not provide adequate evidence to conclude the correlation between WD with ROE and TSR. However, it found contrasting relationships between the ID and WD with TQ. ID was found to be significantly and negatively related to TQ, while a significant and positive correlation was observed between WD and TQ. One possible explanation for these findings could be the differences in the perspectives and experiences that INED and women directors bring to the BOD. INED may prioritize risk management over riskier investments that could increase the company's value in the long run, thus leading to lower TQ (W. Khan et al., 2021). On the other hand, women directors may bring a unique perspective on social responsibility and diversity issues that can lead to enhanced stakeholder trust and engagement, which can ultimately benefit the company's reputation and market position, and lead to higher TQ (Adiasih & Lianawati, 2019). These findings highlight the importance of having a diverse board with a variety of skills, backgrounds and experiences to effectively strike a balance between short-term financial objectives with long-run strategic priorities.

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## **5.3 Discussion of Findings**

Contrary to the existing literatures, surprisingly the present study found no significant relationship between CEOD, IDAC and BS with company performance measures, namely ROE, TSR, and TQ. Furthermore, avoiding CEOD is a long-standing CG practice dating back to its proposition by Jensen and Meckling (1976), and both CEO non-duality and having INED in AC were first recommended in the Cadbury Report (1992). The findings of this study suggest that their impact on company performance may not be as significant as previously thought. Although previous research has demonstrated significant relationships between CEOD (Debnath et al., 2021; Freihat et al., 2019; Prasti et al., 2022), IDAC (Al-Jalahma, 2022; Dakhlallh, 2020; Kaura et al., 2019) and BS (Hamid & Purbawangsa, 2022; Nepal & Deb, 2022; Tuo et al., 2021) with company performance.

This study revealed insignificant relationships between several CG practices and company performance, including WD-ROE, OC-ROE, ID-TSR, WD-TSR, ECC-TSR, OC-TQ, and ECC-TQ. One potential explanation for these findings is the significant impact of COVID-19 and the MCO, which can be considered as force majeure events that have disrupted various aspects of companies' operations, profitability, investor confidence, and share performance (Lee et al., 2020; Saad et al., 2020; Sah & Wong, 2021; Shaharuddin et al., 2021). These external factors may have added noise to the sample data, leading to the obscuring of the true relationship between certain CG practices and company performance. In this context, it is plausible that some CG best practices, such as CEO non-duality, INED on BOD or AC and so forth, are still in place but are unable to fully exert their influence on company performance due to the effects of COVID-19.

Additionally, the study found a significant correlation between ID with ROE and TQ. One possible explanation is that high ID may improve the financial reporting process, enhance transparency, monitor management behaviours and reduce the principal–agent conflicts (Kapoor & Goel, 2019; Radwan et al., 2022; Umar et al., 2022). However, this improvement may come at a cost, as higher ID lead to higher agency costs such as increased monitoring expenses and potential conflicts with management (Rooly, 2021; Tran et al., 2020). Moreover, stakeholder theory posits that INED representing stakeholders, thus the negative correlation with ROE and

TQ may also be due to the fact that INED may prioritize stakeholder interests over shareholder value (Fama & Jensen, 1983; Jain & Zaman, 2020).

In addition, the insignificant relationship between ID and TSR in this study could be attributed to the fact that TSR is a measure that strongly influenced by the stock market situation (Belhadj, 2022). However, the outbreak of COVID-19 has had a significant impact on stock market volatility in Malaysia (Hashim & Hafizal, 2022; KLee et al., 2022; Omar et al., 2021). This may have introduced extraneous noise into the sample data and hindered the establishment of a significant association between ID and TSR.

Moreover, this study reveals a significant and positive association between WD and TQ. This finding may be attributed to the characteristics and behaviours of female leaders. Previous research has suggested that female directors prioritize long-term business objectives over short-term profits, and are more likely to consider the interests of stakeholders (Bulmer et al., 2021; Pareek et al., 2021). Furthermore, gender diverse boards are often perceived as more socially responsible, sustainable, and aligned with stakeholder interests, which can contribute to a positive impact on the firm's reputation and market valuation (Arayakarnkul et al., 2022; Vasconcelos et al., 2022). Taken together, these factors may explain why WD has a significant and positive effect on TQ in this study.

Furthermore, It is possible that appointing male or female directors to the board may result in similar costs, and although women directors may bring unique perspectives and benefits to the board, these may not necessarily translate into significant improvements in ROE in all cases (Alshirah et al., 2022). As a result, this study was unable to establish a substantial correlation between WD and ROE. Besides, the association between WD and TSR is also found to be statistically insignificant. One reason could be although gender diversity on BOD may have a positive impact on long-term company performance, but it may not be immediately reflected in TSR as it is a short-term measure of a company's financial performance, which may not capture the full value of diversity and other non-financial factors that women directors can bring to the board (Sailer, 2021).

In addition, the results of the panel data analysis conducted in this study have revealed a significant negative association between OC and TSR. In fact, the presence of concentrated ownership has adverse impact on stock price, as documented by prior research (Ajukwara et al., 2022; Ogbeide & Osagie, 2019). This could potentially lead to adverse impacts on TSR. Shares of a company with high OC and low free float are associated with lower liquidity (Viratama et al., 2022). According to the theory of liquid asset pricing, lower liquidity of shares is likely to cause reduction in stock price (Yazid & Chandran, 2022). Consequently, the presence of high OC may reduce a company's share liquidity and stock price, leading to a lower TSR.

On the other hand, the panel data analysis results indicate an insignificant relationship between OC and both ROE and TQ. From these results, researcher can infer that OC may not directly affect a company's operational efficiency or growth potential, which are captured by ROE and TQ, respectively. Instead, OC may primarily affect a company's financial performance through its impact on stock price and TSR, as discussed earlier. Besides, it is also possible that negative effects of high OC on shareholder value such as expropriation by controlling blockholders (Arora & Srivastava, 2021; Nashier & Gupta, 2020) be offset by potential benefits such as reduced agency costs (El-Chaarani et al., 2022; Nguyen et al., 2020). Overall, the findings highlight the complex nature of the interdependencies between OC and corporation performance. Further research is needed to fully understand these dynamics.

Last but not least, this study reveals a significant inverse association between ECC and ROE may reflect the costs associated with compliance activities could reduce profitability. Compliance activities can be time-consuming and consume resources such as remuneration pay for the attendance of compliance committee meeting, which can reduce profit or divert attention and resources away from other productive activities that could contribute to ROE. Besides, the insignificant relationship between ECC with TSR and TQ may reflect the fact that compliance activities are unlikely to directly affect a company's growth potential or stock price. Instead, compliance activities may be viewed by investors as a necessary cost of doing business and not as a value driver. It is possible that investors may perceive the top PLCs have to be having strong compliance practices and less likely to be involved in legal or ethical violations. In other words, the benefits of compliance practices may not necessarily translate into higher growth or stock prices.

# **5.4 Implications of the Study**

In this section, the research's implications will be delineated, with a distinction made between managerial and theoretical implications.

### **5.4.1 Managerial Implications**

The study reveals that gender diversity exerts a significant influence on TQ, which serves as an indicator of a company's intrinsic value (Erasmus & Micah, 2021). However, the adoption rate of the recommended 30% women on board remains suboptimal, indicating the need for improvement. These findings highlight the importance of gender diversity in enhancing the performance of PLCs in Malaysia. Therefore, both regulatory bodies such as BURSA and SC, as well as the companies themselves, need to take an active role in promoting gender diversity. For example, Bursa Malaysia could consider making 30% women director on board mandatory, starting with large companies. In addition, larger companies should take the lead in realizing the government's mandate to have 30% women representation on boards, rather than relying solely on government-linked companies to do so (Poo, 2022).

Based on the descriptive analysis, it is evident that PLCs in Malaysia have effectively adopted the best practices of maintaining CEO non-duality and ensuring board and AC independence. However, there is still room for improvement, and companies should strive to adopt step-up practices such as having sole independent directors on audit committees. Companies shall also be mindful of the significant negative relationship between ID with ROE and TQ found in this study. In line with Principle A of MCCG 2021, companies should endeavour to achieve a well-balanced composition of their board of directors, comprising both independent and executive directors, in order to optimize benefits (Merendino & Melville, 2019; Zulkafli et al., 2020). Besides, along with regulatory bodies like BURSA and SC, other entities such as the Institute of Corporate Directors Malaysia ("ICDM"), MSWG, Malaysian Institute of Corporate Governance ("MICG") and large companies itself should also play a vital role in promoting and advocating for better CG practices to achieve greater transparency and accountability which will leading to increased trust and confidence among stakeholders.

The increasing presence of compliance committees in PLCs in Malaysia highlights their recognition of the significance of compliance. However, panel data analysis reveals a significant opposite association between ECC and ROE, which may be attributed to the costs incurred in compliance that can reduce profit and ROE. Despite this, companies should consider the potential benefits that the ECC can bring to the company, shareholders, and stakeholders. The decision to establish a compliance committee, which is not compulsory under listing requirements, should be weighed based on the firm's size, industry, and other relevant factors. Furthermore, Securities Commission Malaysia may consider recommending the establishment of compliance committees as a Step-up practice, given that ECC have already become a global trend, with many companies worldwide having established them. The ECC not only ensures company compliance but may also assess the compliance performance of employees and management (Teichmann et al., 2020).

Based on the descriptive analysis, it can be inferred that companies in Malaysia are effectively maintaining an optimal BS and OC. The managerial implication of this finding is that companies should continue to maintain the optimal BS and OC to ensure that they are operating efficiently and effectively. Additionally, companies that are not maintaining an optimal BS and OC should consider adopting this best practice. Companies should also regularly review their BS and OC to ensure that they remain optimal based on the company's changing needs and circumstances. This will help to ensure that the company having the right mix of board members and ownership structure to remain robust and effective in the long term.

In addition, significant negative relationship between OC and TSR highlights the importance for companies to consider the potential drawbacks of having a highly concentrated ownership structure such as high OC can

limit share liquidity and constrain share price growth (Ajukwara et al., 2022; Ogbeide & Osagie, 2019). Therefore, companies with a highly concentrated ownership structure may want to consider actions to enhance share liquidity, such as share split, stock dividend instead of cash dividend and et cetera (Ogbuagu, 2020). Moreover, in light of the significant negative impact of OC on TSR, it is advisable for companies to implement disclosure policies to provide greater transparency to investors about their ownership structure in order to enhance investor confidence and potentially improve share price performance.

In summary, findings in this study provide valuable insights for policymakers, managers, investors and any stakeholders who are interested in improving CG practices and enhancing company performance.

### **5.4.2 Theoretical Implications**

The key findings of the study have highlighted several uncommon results, including the significant inverse relationships between ID-ROE, ID-TQ, OC-TSR, and ECC-TQ. These findings have been thoroughly discussed and justified in Section 5.3 Discussion of Findings, which adds significant value to the study. The significance of these findings lies in the fact that they challenge the existing theories and literature on CG.

The findings of this study provide important theoretical implications for the field of CG, suggesting that the relationship between CG best practices and company performance may be more intricate than previously understood. Specifically, the study found no significant correlation between CEOD, IDAC, and BS with company performance, challenging the traditional view that these factors are critical determinants of company performance.

This study's novel results highlight the need for future research to explore alternative factors that may impact the relationship between CG best practices and company performance as well as provide an opportunity for future scholars in the field of CG to undertake further research and develop new theories that can provide a deeper understanding of the subject matter. Furthermore, the research on the relationship between ECC and company performance is a relatively unexplored area in the existing literature of CG underscores the novelty and potential importance of this area of research. Hence, this study's findings contribute to an exploratory and innovative area of research. The significant negative relationship between ECC and ROE, as well as the insignificant relationship between ECC and TSR and TQ, offer valuable insights that challenge the conventional understanding of the benefits of having a compliance committee. These findings suggest that the impact of ECC on company performance is a multifaceted and intricate relationship, which calls for further research in the field. These theoretical implications highlight the need for future scholars to delve deeper into this unexplored area of research and investigate the various factors that may impact the association between ECC and company performance.

The fact that this study covers the latest 9 financial years provides important theoretical implications for the field of CG research. Specifically, the study's long coverage period allows for a more comprehensive analysis of the relationship between CG best practices and company performance over time. This provides a more accurate representation of the current state of CG practices and their impact on company performance, which can inform future research in the field. Additionally, the fact that this study is the latest adds value to the existing literature by providing the most up-to-date information on the subject matter. To ensure that CG research stays relevant and up-to-date, it is crucial to keep abreast of the latest trends and developments in CG practices. This is especially important given the rapidly changing business environment and the tremendous impact of the COVID-19 pandemic on the CG landscape (Paine, 2020; PwC, 2023).

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## **5.5 Limitations of the Research**

All research studies are subject to certain limitations, and this study is not an exception. The primary limitation of this study data limitation. This study relied solely on financial data to measure both company performance and CG practices. This approach may not capture the full extent of the relationship between CG and company performance, as it fails to consider non-financial factors, such as social and environmental performance, which could impact this relationship. The exclusion of these factors may have contributed to the lack of sufficient evidence to conclude a relationship between certain CG practices and company performance in this study. In short, this study's exclusive reliance on quantitative methods may be viewed as a limitation, as it overlooks the potential benefits of qualitative research and exposes the study to the inherent weaknesses of quantitative research (Hameed, 2020; Harrison, 2020; Mohajan, 2020).

Another limitation of this study pertains to sampling instead of census was used in this research. This study relied on a sample of 900 firm-observations, consisting of the top 100 PLCs in Malaysia over a span of 9 years. Although the sample size is large enough, but it is still less accurate compared to a census. Moreover, the sample selection was not confined to a specific industry, which may introduce bias when extrapolating the findings to a particular industry. It is imperative to acknowledge that this study solely focused on publicly PLCs in Malaysia, which may limit the generalizability of the findings to privately owned companies or firms operating in other countries. Thus, when applying the results in other contexts, it is important to exercise caution in interpreting the generalizability of the study's findings. In short, this study is limited by the inherent limitations and representativeness of sampling techniques (Mujere, 2016).

This study is subject to causality limitations such as the possibility of endogeneity sourced from reverse causality, simultaneity, omitted variable bias, unobserved heterogeneity and et cetera. The correlational design used in this study precludes the establishment of a definitive causality of CG towards company performance. Although this research identified certain associations between these two variables, other factors not accounted for in this study may also contribute to the observed relationship, as evidenced by the low R-squared values of the panel data regression

analysis indicating by 0.0094, 0.0237, and 0.0114 for ROE, TSR, and TQ, respectively. Furthermore, the study did not include any control variables, mediators, or moderators that could potentially affect the relationship between CG and company performance (Dranove, 2012; Liu et al., 2021).

A noteworthy limitation of this study is the possible presence of measurement error. The reliance on publicly available data, such as annual reports, which may contain errors or inconsistencies, despite the requirement for independent external audits to avoid material misstatements, the audit opinion only provides reasonable assurance rather than an absolute assurance (Rowe, 2019). It is also important to note that the study's measurement of CG and company performance relied on specific metrics, which may not fully capture the intricate and multifaceted nature of these constructs (Bidabadi et al., 2021; Singh & Vishwakarma, 2022). In addition, the measurement error may be attributed to noise effects that contaminate the experimental data (Lizana & Casas, 2022). It is essential to acknowledge these limitations and exercise caution when interpreting the results of the study.

Finally, one potential limitation of this study relates to the analysis of the relationship between ECC and company performance. While the concept of ECC is an innovative point added to the study, which has not been thoroughly explored in previous researches, the limited availability of data on ECC effectiveness is a significant challenge. As such, the study's analysis only considers the presence of a compliance committee and does not evaluate its effectiveness in carrying out its duties. Given the importance of effective compliance committees in improving CG practices, it is possible that the study's findings may not fully capture the impact of ECC on company performance.

In short, it is important to acknowledge the limitations of this research in order to obtain a comprehensive insight of the findings as well as their implications. As well as provide opportunities for future research to build and expand upon these findings. Overall, despite these limitations, this study provides valuable insights into the topic at hand and contributes to the ongoing conversation in this field.

## **5.6 Recommendations for Future Research**

The low R-squared values of 0.0094, 0.0237, and 0.0114 for ROE, TSR, and TQ, respectively, indicate a limited explanatory power of the IVs used in this study (Raya et al., 2022). It is likely that other factors not included in the model may also having significant influence on firm performance. As such, future research should consider the inclusion of additional IVs that might help explain a larger proportion of the variance in the DVs. In addition to including additional variables, future research should also explore the moderating, mediating, and control variables that may impact the correlation between CG practices and company performance. By including a more comprehensive set of variables, future studies may improve the understanding on the correlation between CG best practices and corporation performance.

This study provides important insights into the CG practices of large Malaysian firms over the period of 2013 to 2021, there are several ways in which future research could expand on these findings. Firstly, future research could employ econometric methods to analyse the heterogeneous effects of CG practices on company performance, accounting for potential endogeneity and selection bias. Additionally, future research could conduct difference-in-differences analysis to explore how CG practices vary across industries (i.e., banking. manufacturing etc), ownership structure (i.e., family-owned, government-linked etc), firm size (i.e., small and medium sized companies etc) and over time.

On the other hand, one potential avenue for future research is to use different measurements to evaluate the ECC as an IV in the relationship with company performance. While the ECC is an important first step in promoting good CG practices, it is possible that the effectiveness of such committees varies across companies and industries. Therefore, future studies could examine the impact of different measures, such as the frequency and quality of committee meetings, the independence of committee members, the resources and authority available to the committee, and the level of engagement with key stakeholders such as senior management and external auditors. By using different measurements to evaluate compliance committee effectiveness, future research can gain a more nuanced

understanding of how these committees impact company performance, and provide more specific recommendations for improving CG practices in different contexts.

In addition, future research could consider using different methodologies to complement or validate the result of these findings which carried out by quantitative panel data analysis. For instance, qualitative research methods such as case studies, interviews, and surveys could provide an exploratory insight and more in-depth understanding of the mechanisms and processes through which CG affects company performance. Malaysia has a unique cultural context, and it may be worthwhile to examine how cultural factors such as collectivism, power distance, and uncertainty avoidance influence the adoption and effectiveness of CG practices in Malaysian firms. This could be achieved through a combination of qualitative and quantitative research methods, such as surveys and interviews, to gather data on cultural values and beliefs and their relationship with CG practices (Saunders et al., 2012).

Furthermore, future researches are recommended to apply different statistical techniques such as MLR, hierarchical linear modelling ("HLM"), propensity score matching ("PSM") and et cetera to provide a more robust and nuanced analysis of the relationship between CG and company performance (Gelman & Hill, 2007). Future research may also consider using structural equation modelling ("SEM") to examine the influence of cultural factors on CG practices in Malaysia, while controlling for other relevant variables (Thakkar, 2020). Finally, it may be worthwhile to employ machine learning techniques to identify patterns and factors that could influence CG practices and company performance in Malaysia (Yang et al., 2022).

Overall, the recommendations provided in this section offer valuable directions for future research to deepen our understanding of the relationship between CG practices and company performance in Malaysia, and to identify potential factors that could influence the effectiveness of such practices. By addressing these research gaps, we can gain more insights and knowledge that can inform the development of more effective CG frameworks and guidelines for Malaysian firms.

## 5.7 Conclusion

This study aimed to investigate the relationship between CG and company performance, and the research objectives have been successfully met through panel data analysis. Pivotal theoretical and managerial implications were provided by this research, emphasizing the importance of CG in promoting organizational success. Despite some limitations, this study lays the foundation for future research to expand upon these findings and explore other constructs that might impact the correlation between CG and company performance. Overall, this study serves as an essential contribution to the literature on CG and company performance, providing valuable insights into the critical role of CG in driving corporate success.

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## Appendix 1: Selected top 100 companies listed on Bursa Malaysia with the largest market capitalization as at 31 December 2022

No.	Name	Code	Category	Market Cap (RM'million)	Remark
1	MAYBANK	1155	Financial Services	104,870.90	Selected
2	PBBANK	1295	Financial Services	83,854.19	Selected
3	PCHEM	5183	Industrial Products & Services	68,800.00	Selected
4	TENAGA	5347	Financial Services	61,857.62 55.402.14	Selected
6	IHH	5225	Health Care	54,773,59	Selected
7	DIGI	6947	Telecommunications & Media	46,926.03	Selected
8	HLBANK	5819	Financial Services	44,568.29	Selected
9	PMETAL	8869	Industrial Products & Services	40,209.34	Selected
10	PETGAS	6033		33,875.89	Selected
11	MISC NESTI E	4707	Consumer Products & Services	33,478.45	Selected
13	SIMEPLT	5285	Plantation	32,158.07	Listed on 30 Nov 2017, thus lack of information for FY 2013 - 2017
14	MAXIS	6012	Telecommunications & Media	30,067.77	Selected
15	AXIATA	6888	Telecommunications & Media	28,357.66	Selected
16	DDD	1961	Plantation Consumer Products & Services	25,455.06	Selected
17	RHBBANK	1066	Financial Services	24,810.13	Selected
19	KLK	2445	Plantation	24,171.56	Selected
20	PETDAG	5681	Consumer Products & Services	22,849.44	Selected
21	HLFG	1082	Financial Services	21,343.81	Selected
22	TM	4863	Telecommunications & Media	20,633.46	Selected
23	GENTING	3182	Consumer Products & Services	18,861.51	Listed on 50 Oct 2020, thus lack of information for FY 2015 - 2019
25	GENM	4715	Consumer Products & Services	15,973.34	Selected
26	HAPSENG	3034	Industrial Products & Services	15,933.96	Selected
27	SIME	4197	Consumer Products & Services	15,675.87	Selected
28	DIALOG	7277	Energy	13,832.47	Selected
29	AMBANK OL	1015	Consumer Products & Services	13,720.72	Selected
31	WPRTS	5246	Transportation & Logistics	12,958.00	Selected
32	KLCC	5235SS	Real Estate Investment Trusts	12,113.79	Selected
33	AIRPORT	5014	Transportation & Logistics	10,884.30	Selected
34	GAMUDA	5398	Construction	9,808.65	Selected
35	INARI	166	Telecommunications & Madia	9,742.63	Selected
30	BKAWAN	1899	Plantation	8,999.27	Selected
38	SUNWAY	5211	Industrial Products & Services	7,993.21	Selected
39	F&N	3689	Consumer Products & Services	7,915.08	Selected
40	HEIM	3255	Consumer Products & Services	7,612.87	Selected
41	TOPGLOV	7113	Health Care	7,427.43	Selected
42	VITROX	97	Technology	7,417.94	Selected
44	CARLSBG	2836	Consumer Products & Services	6,995.51	Selected
45	MYEG	138	Technology	6,505.49	Selected
46	YTL	4677	Utilities	6,393.20	Selected
47	GREATEC	2089	Plantation Technology	6,368.91	Selected Listed on 14 Jun 2019, thus lack of information for FY 2013 - 2018
49	MPI	3867	Technology	6,036.28	Selected
50	IGBREIT	5227	Real Estate Investment Trusts	5,918.40	Selected
51	BIMB	5258	Financial Services	5,883.89	Selected
53	IJM	3336	Construction	5,836.11	Selected
54	YTLPOWR	6742	Utilities	5,833.12	Selected
55	HARTA	5168	Health Care	5,826.93	Selected
56	GENP	2291	Plantation	5,743.09	Selected Listed on 11 Mar 2016, thus lack of information for EV 2013 2015
58	ABMB	2488	Financial Services	5,681.55	Selected
59	BURSA	1818	Financial Services	5,381.84	Selected
60	PMBTECH	7172	Industrial Products & Services	5,320.69	Selected
61	D&O I DI	7204	Technology Financial Services	5,295.48	Selected
63	SUNREIT	5176	Real Estate Investment Trusts	5,035.56	Selected
64	SCIENTX	4731	Industrial Products & Services	4,994.43	Selected
65	FRONTKN	128	Technology	4,866.87	Selected
66	FGV	5222	Plantation	4,815.56	Selected
67 69	AFFIN KDI	5185	Financial Services	4,615.99	Selected
08 69	UNISEM	5005	Technology	4,550.58	Selected
70	UWC	5292	Technology	4,427.49	Listed on 12 Jul 2019, thus lack of information for FY 2013 - 2018
71	MBSB	1171	Financial Services	4,410.46	Selected
72	ORIENT	4006	Consumer Products & Services	4,212.47	Selected
13 74	UMW	5209 4588	Consumer Products & Services	4,185.84	Selected
75	UOADEV	5200	Property	3,877.82	Selected
76	PAVREIT	5212	Real Estate Investment Trusts	3,697.42	Selected
77	ASTRO	6399	Telecommunications & Media	3,389.43	Selected
/8 79	vð LCTITAN	6963 5284	Industrial Products & Services	3,386.45	Selected I isted on 14 Jul 2017, thus lack of information for FX 2013 - 2016
80	MFCB	3069	Utilities	3,281.33	Selected
81	CTOS	5301	Technology	3,280.20	Listed on 23 Jul 2021, thus lack of information for FY 2013 - 2020
82	MALAKOF	5264	Utilities	3,250.00	Listed on 15 May 2015, thus lack of information for FY 2013 - 2014
8.5 8.4	BAT	2139 4162	Consumer Products & Services	3,211.77	Selected
85	PENTA	7160	Technology	3,155.56	Selected
86	DRBHCOM	1619	Consumer Products & Services	3,093.18	Selected
87	SIMEPROP	5288	Property	3,060.38	Listed on 30 Nov 2017, thus lack of information for FY 2013 - 2016
88	HLIND HEXTAP	3301 5151	Consumer Products & Services	3,016.71	Selected
90	FFB	5306	Consumer Products & Services	2,993.84	Listed on 25 Mar 2022, thus lack of information for FY 2013 - 2021
91	AXREIT	5106	Real Estate Investment Trusts	2,937.49	Selected
92	TAKAFUL	6139	Financial Services	2,880.33	Selected
93	ARMADA	5210	Energy	2 840 66	Nelected

## Appendix 1: Selected top 100 companies listed on Bursa Malaysia with the largest market capitalization as at 31 December 2022

No.	Name	Code	Category	Market Cap (RM'million)	Remark
94	GCB	5102	Consumer Products & Services	2,819.80	Selected
95	KOSSAN	7153	Health Care	2,813.66	Selected
96	MCEMENT	3794	Industrial Products & Services	2,777.63	Change of FY end from 31 Dec to 30 Jun on 18 Jun 2019, thus lack of information for FY 2019
97	SAM	9822	Industrial Products & Services	2,670.04	Selected
- 98	CAPITALA	5099	Consumer Products & Services	2,601.12	Selected
99	TROP	5401	Property	2,558.54	Selected
100	ALLIANZ	1163	Financial Services	2,520.04	Selected
101	SOP	5126	Plantation	2,367.84	Selected
102	PADINI	7052	Consumer Products & Services	2,335.58	Selected
103	YNHPROP	3158	Property	2,295.86	Selected
104	HIBISCS	5199	Energy	2,294.16	Selected
105	BIPORT	5032	Transportation & Logistics	2,254.00	Selected
106	FAREAST	5029	Plantation	2,197.20	Selected
107	SPTOTO	1562	Consumer Products & Services	2,161.65	Selected
108	OSK	5053	Property	2,095.30	Selected
109	BJFOOD	5196	Consumer Products & Services	2,006.06	Selected
110	BJCORP	3395	Industrial Products & Services	1,997.45	Selected
111	ECOWLD	8206	Property	1,928.56	Selected
112	DLADY	3026	Consumer Products & Services	1,909.76	Selected

Note: 12 companies ranked in top 100 largest market capitalization were not selected due to incomplete data. Thus, additional 12 companies with subsequent largest market capitalization and containing completed set of data were selected in order to make-up 100 samples.

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Words limit Margin of 10%, i.e., ±2000 words. Acceptable words limits  $\begin{array}{c} 20,\!000 \\ 2,\!000 \\ 18,\!000 \geq \! \mathrm{Words} \geq \! 22,\!000 \end{array}$ 

\* Therefore, the written thesis containing 21,322 words is within the acceptable words limit