

THE NEXUS BETWEEN CORPORATE GOVERNANCE, CAPITAL  
STRUCTURE AND FIRM PERFORMANCE OF MALAYSIAN PUBLIC LISTED  
COMPANIES

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UNIVERSITI TEKNOLOGI MALAYSIA

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STRUCTURE AND FIRM PERFORMANCE OF MALAYSIAN PUBLIC LISTED  
COMPANIES

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## **DEDICATION**

This thesis is dedicated to my father, who taught me that the best kind of knowledge to have is that which is learned for its own sake. It is also dedicated to my mother, who taught me that even the largest task can be accomplished if it is done one step at a time.

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## ABSTRACT

Past studies revealed that capital structure and corporate governance are the main reasons for various financial crises. Since then, many studies have evaluated the consequences of both factors, particularly on the performance of corporations. However, the literature remains ambiguous about the impact of capital structure and corporate governance on corporate performance because most studies focus on a single measure of capital structure (total debt). The purpose of this study is to furnish incremental information about the interrelationship between corporate governance, capital structure, and firm performance using three measures of capital structure. Additionally, unlike most prior studies, this study has considered all categories of governance, namely board of director attributes, audit committee characteristics, and ownership. This study employs the agency and free cash flow theories in order to explain the inconsistency between reality and conventional beliefs about corporate capital policies. This provides a new perspective on the nature of the corporate capital structure and its association with corporate governance and firm performance. This study used balanced panel data, which included 528 non-financial Malaysian public listed companies from 2015 to 2019. Data were analysed using the Generalized Method of Moments estimations (GMM) to address the endogeneity issue. Generally, findings reveal a significant and positive influence on most corporate governance attributes on the performance of firms and their capital structures. The findings also revealed that board diversity is the most significant attribute that enhances the performance of firms. Malaysian companies achieve higher performance with smaller board sizes, more female directors, more board meetings, a larger audit committee size, higher audit committee independence, less director change (turnover), and fewer audit committee meetings. Additionally, the results of this study have confirmed the mediating role of the corporate capital structure in the relationship between corporate governance and firm performance. Consistent with the Pecking Order Theory, the results suggest that companies need to keep a lower level of debt in order to deal more efficiently with investment opportunities (using an internal source of capital) and also to improve their financial performance. Additionally, it is revealed that a lower debt level strengthens the corporate governance quality of companies so as to compensate for the agency costs rising due to excessive cash. Findings also show that capital structure and firm performance are negatively and significantly associated, which means that Malaysian companies with lower debt ratios have higher performance. This contributes to the body of knowledge by providing insights into the indirect role of various corporate governance attributes in enhancing the performance of companies in Malaysia. This study provides a solid practical implication for regulators and policymakers by indicating empirically that capital structure should be taken into account when structuring the monitoring mechanisms of firms to improve business performance. Finally, this study offers recommendations and directions for future research.

## ABSTRAK

Kajian lepas mendedahkan bahawa struktur modal dan tadbir urus korporat adalah punca utama berlakunya pelbagai krisis kewangan. Justeru itu, sejumlah besar kajian telah membuat penilaian terhadap akibat dari kedua-dua faktor, khususnya prestasi syarikat. Walau bagaimanapun, literatur masih kabur tentang kesan struktur modal dan tadbir urus korporat terhadap prestasi syarikat kerana kebanyakan kajian menggunakan satu ukuran tunggal iaitu struktur modal (jumlah hutang). Tujuan kajian ini adalah untuk memberi maklumat tambahan mengenai hubungkait antara tadbir urus korporat, struktur modal dan prestasi firma menggunakan tiga ukuran struktur modal. Selain itu, tidak seperti kebanyakan kajian terdahulu, kajian ini memberi pertimbangan terhadap semua kategori tadbir urus, iaitu ciri-ciri lembaga pengarah serta ciri-ciri jawatankuasa audit dan pemilikan. Kajian ini menggunakan teori agensi dan teori aliran tunai bebas untuk menjelaskan ketidakselarasan antara realiti dan kepercayaan konvensional terhadap polisi modal korporat. Ini memberikan perspektif baharu terhadap sifat struktur modal korporat dan hubungkaitnya dengan tadbir urus korporat dan prestasi firma. Data panel seimbang yang terdiri daripada 528 syarikat tersenarai awam bukan kewangan di Malaysia untuk tempoh bermula dari 2015 hingga 2019 telah digunakan untuk kajian ini. Data telah dianalisis menggunakan anggaran Kaedah Umum Momen (GMM) yang juga untuk menangani isu endogeneiti. Secara umumnya, dapatan mendapati terdapat pengaruh yang signifikan dan positif atas kebanyakan ciri-ciri tadbir urus korporat terhadap prestasi firma dan struktur modal. Dapatan juga mendapati bahawa kepelbagaian lembaga pengarah adalah faktor yang paling ketara bagi peningkatan prestasi firma. Syarikat-syarikat di Malaysia mencapai prestasi yang lebih tinggi dengan saiz lembaga pengarah yang lebih kecil, lebih ramai pengarah wanita, lebih banyak mesyuarat lembaga pengarah, saiz jawatankuasa audit yang lebih besar dan kebebasan jawatankuasa audit yang lebih tinggi, kurang pertukaran pengarah (pusingan ganti) dan kurang sedikit mesyuarat jawatankuasa audit. Tambahan, dapatan daripada kajian telah mengesahkan peranan pengantara struktur modal korporat terhadap hubungan antara tadbir urus korporat dengan prestasi firma. Konsisten dengan teori *pecking order*, dapatan kajian menunjukkan bahawa syarikat-syarikat perlu mengekalkan tahap hutang yang lebih rendah untuk menangani peluang pelaburan yang lebih cekap (menggunakan sumber modal dalaman) dan juga untuk meningkatkan prestasi kewangan mereka. Disamping itu, kajian ini juga mendedahkan bahawa paras hutang yang lebih rendah mengukuhkan kualiti tadbir urus korporat syarikat untuk mengimbangi kos agensi yang meningkat hasil dari wang tunai yang berlebihan. Dapatan juga menunjukkan bahawa struktur modal dan prestasi firma dikaitkan secara negatif lagi signifikan, yang bermaksud syarikat-syarikat Malaysia yang mempunyai nisbah hutang yang lebih rendah mempunyai prestasi yang lebih tinggi. Kajian ini menyumbang kepada badan ilmu, dengan memberikan pengetahuan tentang peranan tidak langsung pelbagai sifat tadbir urus korporat dalam meningkatkan prestasi syarikat di Malaysia. Ianya memberikan implikasi praktikal yang kukuh bagi pengawal selia dan pembuat dasar dengan menunjukkan secara empirikal bahawa struktur modal harus diambil kira apabila menstruktur mekanisme pemantauan firma untuk meningkatkan prestasi perniagaan. Akhir sekali, kajian ini menawarkan cadangan dan hala tuju untuk penyelidikan masa depan.

## TABLE OF CONTENTS

	TITLE	PAGE
	<b>DECLARATION</b>	<b>iii</b>
	<b>DEDICATION</b>	<b>iv</b>
	<b>ACKNOWLEDGEMENT</b>	<b>v</b>
	<b>ABSTRACT</b>	<b>vi</b>
	<b>ABSTRAK</b>	<b>vii</b>
	<b>TABLE OF CONTENTS</b>	<b>viii</b>
	<b>LIST OF TABLES</b>	<b>xiv</b>
	<b>LIST OF FIGURES</b>	<b>xvi</b>
	<b>LIST OF ABBREVIATIONS</b>	<b>xvii</b>
	<b>LIST OF SYMBOLS</b>	<b>xviii</b>
	<b>LIST OF APPENDICES</b>	<b>xix</b>
<b>CHAPTER 1</b>	<b>INTRODUCTION</b>	<b>1</b>
	1.1 Overview	1
	1.2 Background of the Study	2
	1.3 Problem Statement	9
	1.4 Research Aims	14
	1.5 Research Questions	14
	1.6 Research Objectives	15
	1.7 Research Scope	16
	1.8 Significance of the Study	17
	1.9 Operational Definitions	18
	1.10 Organization of the Study	19
<b>CHAPTER 2</b>	<b>LITERATURE REVIEW</b>	<b>21</b>
	2.1 Introduction	21
	2.2 Firm Performance	22
	2.3 Corporate Governance Mechanisms	25
	2.4 Corporate Governance in Malaysia	29

2.5	Hypotheses Development	38
2.5.1	Corporate Governance and Firm Performance	38
2.5.1.1	Board Size and Firm Performance	41
2.5.1.2	Board Independence and Firm Performance	43
2.5.1.3	Board Diversity and Firm Performance	45
2.5.1.4	Board Meetings and Firm Performance	48
2.5.1.5	Board Tenure and Firm Performance	50
2.5.1.6	Board Change and Firm Performance	52
2.5.1.7	Ownership Concentration and Firm Performance	54
2.5.1.8	Audit Committee Size and Firm Performance	56
2.5.1.9	Audit Committee Independence and Firm Performance	58
2.5.1.10	Audit Committee Meetings and Firm Performance	61
2.5.1.11	Audit Committee Financial Qualification and Firm Performance	63
2.5.2	Corporate Governance and Capital Structure	64
2.5.2.1	Board Size and Capital Structure	68
2.5.2.2	Board Independence and Capital Structure	69
2.5.2.3	Board Diversity and Capital Structure	71
2.5.2.4	Board Meetings and Capital Structure	73
2.5.2.5	Board Tenure and Capital Structure	74
2.5.2.6	Board Changes and Capital Structure	75
2.5.2.7	Ownership Concentration and Capital Structure	76



2.5.2.8	Audit Committee Size and Capital Structure	78
2.5.2.9	Audit Committee Independence and Capital Structure	80
2.5.2.10	Audit Committee Meetings and Capital Structure	81
2.5.2.11	Audit Committee Financial Qualifications and Capital Structure	83
2.5.3	Capital Structure and Firm Performance	84
2.5.4	The Mediating Role of Capital Structure	86
2.5.5	Control Variables	92
2.6	Fundamental Theories	94
2.6.1	Agency Theory	95
2.6.2	Free Cash Flow Theory	97
2.6.3	Pecking Order Theory	97
2.7	Conceptual Research Framework	99
2.8	The Research Hypotheses	101
2.9	Chapter Summary	103
<b>CHAPTER 3</b>	<b>RESEARCH METHODOLOGY</b>	<b>109</b>
3.1	Introduction	109
3.2	Research Process	109
3.3	Research Paradigm	111
3.4	Research Design	115
3.5	Population and Sample	120
3.6	Panel Data	122
3.7	Research Variables and Measurements	124
3.7.1	Dependent Variables	125
3.7.2	Independent Variables	126
3.7.3	Mediator Variables	128
3.7.4	Control Variables	129
3.8	Summary of Variables and Data Source	130
3.9	Endogeneity Issue	131
3.10	Data Analyses	133

3.10.1	Descriptive Analyses	134
3.10.2	Correlation Matrix	134
3.10.3	Multivariate Regression	135
3.10.3.1	Generalized Method of Moments	137
3.10.3.2	Model Misspecification Analysis	139
3.11	Research Equations	140
3.11.1	Ordinary Least Square Equations	140
3.11.2	Generalized Method of Moments Equations	141
3.11.3	Mediation Factor Equations	143
3.12	Chapter Summary	144
<b>CHAPTER 4</b>	<b>RESEARCH FINDINGS</b>	<b>147</b>
4.1	Introduction	147
4.2	Descriptive Result	147
4.3	Correlation Matrix	150
4.4	Analysis I- Corporate Governance and Firm Performance Model	156
4.4.1	Multivariate Regression- ROA Model	156
4.4.2	Multivariate Regression- ROE Model	159
4.4.3	Statistical Test and Sensitivity Analysis	162
4.4.3.1	Multicollinearity Test	162
4.4.3.2	Heteroscedasticity Test	163
4.4.3.3	Serial Correlation Test	163
4.4.3.4	Additional Control Variable	164
4.4.4	GMM Estimation of Governance and Performance Association	166
4.5	Analysis II- Corporate Governance and Capital Structure Model	168
4.5.1	Multivariate Regression- Capital Structure Models	168
4.5.2	Statistical Test and Sensitivity Analysis	170
4.5.2.1	Multicollinearity Test	170
4.5.2.2	Heteroscedasticity Test	171

	4.5.2.3	Serial Correlation Test	172
	4.5.2.4	Additional Control Variable	172
	4.5.3	GMM Estimation of Governance and Capital Structure Association	174
4.6		Analysis III- Capital Structure and Firm Performance Model	177
	4.6.1	Multivariate Regression- ROA Model	177
	4.6.2	Multivariate Regression- ROE Model	178
	4.6.3	Statistical Test and Sensitivity Analysis	180
	4.6.3.1	Multicollinearity Test	180
	4.6.3.2	Heteroscedasticity Test	181
	4.6.3.3	Serial Correlation Test	181
	4.6.3.4	Additional Control Variable	182
	4.6.4	GMM Estimation of Capital Structure and Firm Performance Association	183
4.7		Analysis IV- Mediation Model of Capital Structure in the Relationship Between Corporate Governance and Firm Performance	184
	4.7.1	Mediation Effect of Capital Structure in ROA Model	185
	4.7.2	Mediation Effect of Capital Structure in ROE Model	188
4.8		Chapter Summary	190
<b>CHAPTER 5</b>		<b>DISCUSSION AND CONCLUSION</b>	<b>193</b>
	5.1	Introduction	193
	5.2	Discussion of the Research Findings	195
	5.2.1	The Effect of Corporate Governance on Firm Performance (Objective One)	195
	5.2.2	The Effect of Corporate Governance on Capital Structure (Objective Two)	201
	5.2.3	The Effect of Capital Structure on Firm Performance (Objective Three)	205
	5.2.4	Mediating of Capital Structure on Relationship between Corporate Governance and Firm Performance (Objective Four)	206
5.3		Contributions to Study	208

5.3.1	Theoretical Implications	209
5.3.2	Practical and Managerial Implications	212
5.4	Limitations of the Study	213
5.5	Recommendations for Future Research	215
5.6	Conclusion	217
5.7	Concluding Remark	220
<b>REFERENCES</b>		<b>223</b>
<b>LIST OF PUBLICATIONS</b>		<b>263</b>

## LIST OF TABLES

<b>TABLE NO.</b>	<b>TITLE</b>	<b>PAGE</b>
Table 2. 1	Comparison Between MCCG (2007, 2012, and 2017)	33
Table 2. 2	Summary of the Most Similar Research on CG and FP	41
Table 2. 3	Summary of the Most Similar Studies on CG and CS	67
Table 2. 4	Summary of the Research Hypotheses	102
Table 2. 5	Summary of the Literature on CG and FP Association	104
Table 2. 6	Summary of the Literature on CG and CS Association	105
Table 2. 7	Summary of the Literature on CS and FP Association	106
Table 2. 8	Summary of the Mediation Effect of CS	107
Table 3. 1	Comparison of Five Research Philosophies in Business and Management	114
Table 3. 2	Characteristics of Quantitative and Qualitative Methods	119
Table 3. 3	Research Sample	121
Table 3. 4	Types of Variables	125
Table 3. 5	Measurements of Firm Performance	126
Table 3. 6	Summary of the Variables and Measurements	130
Table 3. 7	Correlation Coefficient Strength and Value	135
Table 3. 8	Summary of the Research Methodology	145
Table 4. 1	Descriptive Statistics	150
Table 4. 2	Correlation Matrix	153
Table 4. 3	The Impact of Corporate Governance on ROA Model (OLS Robust)	158
Table 4. 4	The Impact of Corporate Governance on ROE Model (OLS Robust)	161
Table 4. 5	Multicollinearity Test for Firm Performance Models	162
Table 4. 6	Heteroscedasticity for Corporate Governance and Firm Performance Models	163

Table 4. 7	Autocorrelation Test for Firm Performance and Corporate Governance Models	164
Table 4. 8	Multivariate Regression for FP Models with Additional Control Variable	165
Table 4. 9	Corporate Governance and Firm Performance Association (GMM Estimation)	167
Table 4. 10	The Impact of Corporate Governance on Capital Structure (Robust OLS)	169
Table 4. 11	Multicollinearity Test for Firm Performance Models	171
Table 4. 12	Heteroscedasticity for Corporate Governance and Capital structure Models	171
Table 4. 13	Autocorrelation Test for Firm Performance and Capital structure Model	172
Table 4. 14	Multivariate Regression for CS Models with Additional Control Variable	173
Table 4. 15	Corporate Governance and Capital Structure Association (GMM Estimation)	176
Table 4. 16	The Impact of Capital Structure on ROA (OLS Robust)	178
Table 4. 17	The Impact of Capital Structure on ROE (OLS Robust)	179
Table 4. 18	Multicollinearity Test for Firm Performance Models	180
Table 4. 19	Heteroscedasticity for Capital Structure and Firm Performance Model	181
Table 4. 20	Autocorrelation Test for Capital Structure and Firm Performance Model	181
Table 4. 21	Multivariate Regression for CS Models with Additional Control Variable	182
Table 4. 22	Capital Structure and ROA Association (GMM Estimation)	184
Table 4. 23	The Mediating Effect of Capital Structure on CG and ROA Association	187
Table 4. 24	The Mediating Effect of Capital Structure on CG and ROE Association	189
Table 4. 25	Summary of the Results for Hypotheses Tests	190
Table 5. 1	Summary of the Research Findings	219

## LIST OF FIGURES

<b>FIGURE NO.</b>	<b>TITLE</b>	<b>PAGE</b>
Figure 1. 1	External Debt by Institution in Malaysia (RM billion)	7
Figure 2. 1	Governance Mechanisms	28
Figure 2. 2	Features of the New Governance Approach in Malaysia	32
Figure 2. 3	The Assumptions of Mediating Variable	87
Figure 2. 4	The Roles of the Board of Directors	88
Figure 2. 5	The Research Framework	101
Figure 3. 1	Research Process	111
Figure 3. 2	Research Design	118
Figure 3. 3.	The Assumptions of Mediating Variable	144
Figure 5. 1	Summary of the Findings of CG and FP Association (GMM Model)	199
Figure 5. 2	Summary of the Findings of CG and CS Association (GMM Model)	203
Figure 5. 3	Summary of the Findings of CS and FP Association (GMM Model)	206

## LIST OF ABBREVIATIONS

AC	-	Audit committee
ACI	-	Audit Committee Independence
ACM	-	Audit Committee Meetings
ACS	-	Audit Committee Size
BD	-	Board Diversity
BI	-	Board Independence
BS	-	Board Size
BT	-	Board Tenure
CG	-	Corporate Governance
CS	-	Capital Structure
DV	-	Dependent Variable
FAGE	-	Firm Age
FP	-	Firm Performance
FSIZE	-	Firm Size
GMM	-	Generalized Method of Moments
INDUSTRY	-	Industry Effects
IV	-	Independent Variable
LTD	-	Long-Term Debt
MCCG	-	Malaysia Code of Corporate Governance
MICG	-	Malaysian Institute of Corporate Governance
MV	-	Mediation Variable
OC	-	Ownership Concentration
OLS	-	Ordinary Least Squares
PLCs	-	Public Listed Companies
ROA	-	Return on Assets
ROE	-	Return on Equity
SCM	-	Securities Commission Malaysia
SG	-	Sales Growth
STD	-	Short-Term Debt
TANG	-	Tangible Assets
TD	-	Total Debt



## LIST OF SYMBOLS

$\%$	-	Percentage
$\alpha$	-	Alpha Cronbach (Intercept)
$\varepsilon$	-	Error Term
$\beta$	-	Slope of Independent Variables
$i$	-	Firm
$t$	-	Time

## LIST OF APPENDICES

<b>APPENDIX</b>	<b>TITLE</b>	<b>PAGE</b>
Appendix A	The Checklist of All the Study Variables	255
Appendix B	The Companies Included in the Final Sample	256

# CHAPTER 1

## INTRODUCTION

### 1.1 Overview

Corporate performance is essential for stakeholders and the overall economy, and successful corporations constitute a crucial ingredient for emerging economies. Successful firms can be considered similar to an engine in determining their political, social, and economic development. Hence, evaluating the corporation's performance is vital for the survival and growth of firms and the market. Daft (2010, p. 20), in his book titled '*Organization Theory and Design*,' said, "The whole point of understanding structural and contextual dimensions is to design the organization in such a way as to achieve high performance." Nevertheless, literature is still unclear about the antecedents of firm performance.

Firm performance (FP) is influenced by various factors, including monitoring quality and capital structure (CS). Every corporate should operate in conditions of good performance to survive in a competitive business environment. Thus, understanding the interrelationship between CS, corporate governance (CG), and FP is essential for the survival of companies in today's business environment. It has often been highlighted that better firm performance is one of the main advantages of implementing an exemplary structure of CG within a corporation (Puni and Anlesinya, 2020). Nowadays, despite the growing number of studies in this area, further research is still open.

The following sections illustrate the study background, the problem statement, and the research aims. Research questions, objectives, framework, scope, and significance are identified. Finally, the definitions of the significant terms are provided, and the last section shows the organization of this study.

## 1.2 Background of the Study

The performance of the firms can provide maximum prosperity or profit for shareholders if the firms efficiently utilize their assets. Better firm performance reflects the investor's perception of the level of success of the firm that is often associated with stock prices. The quality of executive decisions depends not only on the ability of the managers but also on the incentives the managers have to make decisions that create value for stockholders (Byrd, Parrino and Pritsch, 1998). Firms that are oriented toward profitability will generally focus their activities on increasing the maximum value of the shareholders as it is the ultimate objective of companies (Varaiya, Kerin and Weeks, 1987). The performance of a firm formed will give a signal to investors about the efficiency of the firm overall performance. However, the determinants of the higher performance of companies are still debated topic among scholars. The literature has commonly reported that corporate governance is an important driver of firm performance, yet the findings are inconclusive.

Corporate governance describes the means and frameworks utilized to guide and monitor the company's operations and activities towards achieving economic stability with the primary goal of enhancing long-term stockholders' value while considering the interest of all stakeholders (MCCG, 2017). It has been documented in the literature that a good governance system promotes the sustainability of economic development by improving the market efficiency of corporations and facilitating their access to external funds (Doidge *et al.*, 2007). In line with this view, Sheikh and Wang (2012) suggested that countries have increased their capacity to attract capital to lubricate their economies and have seen robust growth across all corporate sectors as a result of implementing sound corporate governance practices. Importantly, a good governance system mitigates the vulnerability of the economic downturn (Joh, 2003).

With regard to the firm-level benefits, companies with a strong governance structure are able to better compete with international corporations (Ehikioya, 2009). It also helps to reduce the risk of financial reporting problems and to make efficient financial decisions (Muazeib *et al.*, 2019). Moreover, good governance practices protect the interest of investors and strengthen good capital markets (Ahmed, Talreja

and Kashif, 2019). Also, corporates with a sound governance structure will have a better financial and operational performance as well as higher firm valuation (Puni and Anlesinya, 2020). Indeed, the influence of CG on companies' performance has been extensively studied in prior research.

The debates about the link between corporate governance (monitoring mechanisms) and firm performance have been triggered by the series of the financial crisis (e.g., the Asian Financial Crisis 1997 and the International Financial Crisis 2008) as well as the various financial collapses of several international firms in the last decades. Since then, it has become an attractive topic for researchers, as evident by the overwhelming number of studies pertaining to CG and FP. Additionally, after the financial crises, several countries have implemented new CG standards to improve the confidence of stakeholders in the market and enhance the economic developments of the markets. Yet, there is a relative lack of compliance with the governance regulation around the world. Therefore, understanding the advantages of having a better governance structure could enhance the company's compliance with government regulation and achieve higher investor protection in the markets.

The effort in Malaysia began with the creation of the Corporate Governance Finance Committee in 1998, which includes both government and business. This committee, as a regulating governmental body, has made a concerted effort to structure firms' activities to promote CG practices among Malaysian corporations (Bhatt *et al.*, 2017). In the same vein, the Malaysian Institute of Corporate Governance (MICG) introduced the Malaysian Code on Corporate Governance (MCCG) in March 2000, which came to revision in 2007, 2012, and 2017. These codes provide frameworks used to guide and maintain the company's operations and activities towards achieving economic stability with the primary goal of enhancing long-term stockholders' value whilst considering the interest of all stakeholders (MCCG, 2017). MCCG (2017) suggested firms have more females on the board and independent directors for less than nine years. Nevertheless, the increasing number of corporations that intend to keep long-tenured non-executive directors has become a public concern (Kumar, 2019).

Empirically, the general evidence of the governance and performance relationship is in favour of agency theory, in which good CG is associated with better FP (Jensen, 1986; Bhatt and Bhatt, 2017; Ciftci *et al.*, 2019; Puni and Anlesinya, 2020). Yet, these findings of prior are inconsistent, and other researchers conclude a negative association between these factors (Guo and Kga, 2012). Moreover, research was done by Detthamrong *et al.* (2017), and Wang *et al.* (2020) failed to discover a strong link between the cited variables. For this reason, Ward *et al.* (2009) recommended looking beyond the direct link between firm performance and corporate governance.

Following the classifications suggested by Brown *et al.* (2011), the internal corporate governance measures examined in the study comprise board structure, ownership concentration, and audit committee. For board structure variables, board size has been found to exert a positive influence on corporate performance (Ciftci *et al.*, 2019; Waheed and Malik, 2019; Mohamad *et al.*, 2020). Board diversity is suggested to have a positive association with FP (Ahmadi, Nakaa and Bouri, 2018; Mertzanis, Basuony and Mohamed, 2018). Board independence was found to have a positive influence on firm performance (Huang, 2010; Al Farooque *et al.*, 2020; Wang *et al.*, 2020). Board tenure is reported to exert a positive influence on corporate performance (Ng *et al.*, 2016; Huang and Hilary, 2018).

Also, ownership concentration is vital to be included in the study because Malaysian corporate suffer from dominant control via ownership concentration (Tam and Tan, 2007). Indeed, in Malaysia, ownership concentration may have a detrimental effect on the board's effectiveness rather than a beneficial effect (Abdullah, 2016). However, it has been suggested that the empowers the boards of directors, and the agency conflicts can be reduced by the greater ownership concentration (Suto, 2003; Waheed and Malik, 2019). Ownership concentration is an indispensable facet of CG mechanisms and an important factor that affects firm performance. Previously, it was reported that ownership concentration was related to FP (Mertzanis *et al.*, 2019; Waheed and Malik, 2019; Puni and Anlesinya, 2020).

Further, the audit committee's characteristics are incorporated in this study because they are critical to the achievement of the firms' strategic goals (Singh *et al.*, 2018). It is also expected to strengthen directors' oversight roles (Koerniadi and Tourani-Rad, 2012). These characteristics, including audit committee size, have been highlighted in the literature to exert a positive impact on the performance of corporations (Khan, Tanveer and Malik, 2017; Al-Matari, Al-Swidi and Fadzil, 2014; Al-Homaidi *et al.*, 2019; Rahman, Meah and Chaudhory, 2019; Dakhlallah *et al.*, 2020; Warrad and Khaddam, 2020). Also, the independence of the audit committee increases its monitoring effectiveness and consequently leads to better performance (Aanu, Odianonsen and Foyeke, 2014; Kallamu and Saat, 2015; Al-Homaidi *et al.*, 2019; Saha and Chandra Kabra, 2019; Yameen, Farhan and Tabash, 2019; Dakhlallah *et al.*, 2020). Finally, audit committee meeting frequency and corporate performance association have been reported to be positive in the previous studies (Warrad and Khaddam, 2020; Al-Homaidi *et al.*, 2019; Almoneef and Samontaray, 2019; Yameen *et al.*, 2019; Al Farooque *et al.*, 2020).

For corporate governance and corporate governance, the puzzle of the relationship between both variables is still unsolved, and different CS theories and/or different quantitative regressions models conclude different results (Hussainey and Aljifri, 2012). Financial debt can help to mitigate the agency cost as it constrains executives from pursuing inefficient investments (Jensen, 1986). Chang *et al.* (2014) also argued that both the firm's unique feature and conflict of interests between its executives and stockholders could affect the level of debt of the firm. Therefore, firms with efficient monitoring mechanisms would attract higher external financial funds (debt).

The Security Commission Malaysia launched its Capital Market Masterplan one in 2001 and Capital Market Masterplan two (2011–2020), which outlines several growth plans and governance strategies to strengthen the competitiveness of Malaysia's capital market (SC, 2001, 2011). This plan assumes that firms must be able to raise money efficiently through the equity as well as the debt markets through corporate bonds. Hence, good CG quality eases access to external funds. Doidge *et al.*

(2007) found that a better CG framework facilitates access to finance and reduces the costs of capital.

Empirically, the CG mechanisms that are intended to be used in this study were previously investigated in relationship with capital structure. Board size has been suggested to exert a positive influence on capital structure (Wen *et al.*, 2002; Germain *et al.*, 2014; Sheikh and Wang, 2012). Additionally, board diversity was suggested to be associated with a capital structure (Loukil and Yousfi, 2016; Elmagrhi *et al.*, 2018; Adusei and Obeng, 2019). Board independence was found to have a positive impact on CS (Alves *et al.*, 2015; Sheikh and Wang, 2012; Tarus and Ayabei, 2016). Board tenure is reported to positively affect the capital structure (Ishak *et al.*, 2011; Tarus and Ayabei, 2016). Finally, as mentioned earlier, due to the importance of ownership concentration in minimizing the agency conflict and empowering the board of directors (Suto, 2003; Waheed and Malik, 2019), it is included in the study. Ownership concentration was found to be positively associated with capital structure (Céspedes, González and Molina, 2010; Sheikh and Wang, 2012). It should be noted that, relatively, a smaller number of studies has been conducted to investigate the association between CG and CS compared to the number of studies on the corporate governance and firm performance association, while some of the corporate governance variables like board tenure have even received little attention from researchers.

The total credits to the private non-financial industry in Malaysia accounted for 167.2 percent of gross domestic product (Kana, 2019). Since then, despite numerous governmental reforms that began in 2000 and were amended several times, several reports have been released recently concerning corporations' excessive debt behaviour, with total credit in the Malaysian private non-financial sector standing at 134 percent in 2018 (Kana, 2019). As a result of regulators imposing insufficient financial discipline, excessive debt and possible catastrophes may occur in the near future. This implies that the Malaysian legislative measures undertaken after the financial downturn did not contribute to stronger companies' performance (Ghazali, 2010). More recently, Lee-Kuen *et al.* (2017, p. 57) said that "*Malaysia may suffer from the weak corporate governance common to many developing countries.*"



In 2018, Bank Negara Malaysia revealed a report indicating that the external debt of emerging countries has increased significantly in the aftermath of the international financial downturn. Malaysia, in particular, has also seen a growth in foreign debts, and the debt level is larger in comparison to the emerging market median of peer nations (Ahmad *et al.*, 2018). In the same year, a report released by Rozimi (2018), Bank Negara Malaysia, titled 'profile of Malaysia's external debt,' showed that the federal government's external debt experienced a decrease from 2014 to 2018. At the same time, the growth in external debt is mainly attributed to the private corporations and the banking sector (Figure 1.1). The trend of corporations' debt raises the question about the interrelationship between capital structure and firm performance.

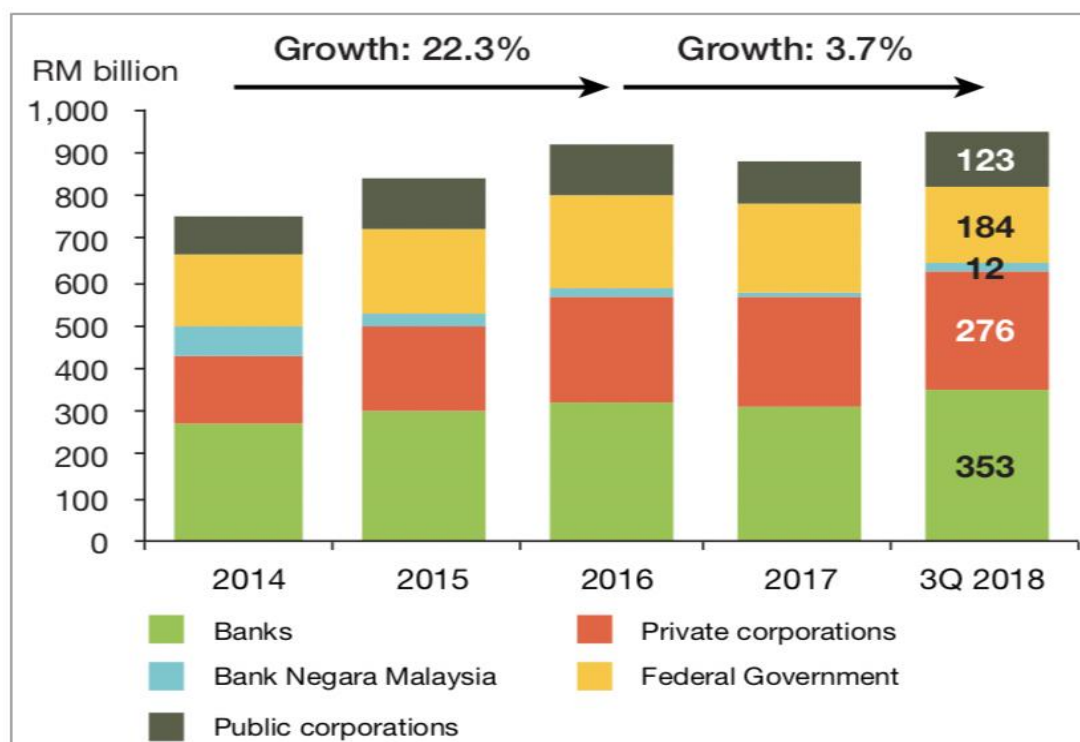


Figure 1.1 External Debt by Institution in Malaysia (RM billion)

Source: (Rozimi, 2018)

Although the general evidence is in favour of the agency theory in which good CG is associated with better FP (Jensen, 1986; Bhatt and Bhatt, 2017; Ciftci *et al.*, 2019; Puni and Anlesinya, 2020). The findings of prior studies are inconsistent, and other researchers conclude a negative/no association between these factors (Guo and

Kga, 2012; Detthamrong, Chancharat and Vithessonthi, 2017; Wang *et al.*, 2020). For this reason, Ward *et al.* (2009) recommended looking beyond the direct link between firm performance and corporate governance.

It has been proven that this relation (CG and FP) is complex and dynamic (Nicholson and Kiel, 2007; Dalton and Dalton, 2011) due to the constantly evolving organizational and business environment. Thus, a single theory cannot explain the complex pattern of CG influence on FP (Nicholson and Kiel, 2007). Several scholars called for more multiple-theoretical orientation work (Filatotchev and Boyd, 2009; Abid *et al.*, 2014; Ahmadi *et al.*, 2018). Similarly, existing research on the influence of CS on FP is either informative or descriptive because of the reliance on a single theory. Consequently, there is an increasing theoretical suggestion to use a multi-theoretical framework (Elmagrhi *et al.*, 2018). Therefore, this study will use more than one theory to evaluate the indirect link between CG and company performance by including the mediating factor of CS.

However, one possible explanation for the indirect relationship between CG and FP is that the boardroom members, as one of the most fundamental monitoring mechanisms entities, and apart from the monitoring role, are significantly responsible for setting the policy within a firm. It has been suggested that the board is responsible for approving strategic decisions and monitoring key activities, and therefore effective boards are essential to the success of corporations (Detthamrong, Chancharat and Vithessonthi, 2017). Also, Adusei and Obeng (2019) maintained that the boardroom is one of the most crucial factors influencing a firm's financial decisions. Thus, the impact of corporate governance on business performance would be mediated by the policies adopted by boards.

Due to inconsistent findings of prior studies on the link between CG and FP, a new trend of studies emerged arguing that the association might be indirect, and several mediating variables were introduced by scholars. Some researchers investigate the various CG mechanisms and FP association with the mediating effect of; research and development (Zhang *et al.*, 2014), cash holdings (Karrahemi, 2016), innovation (Khan *et al.*, 2019), and capital structure (Detthamrong *et al.*, 2017; Chabachib *et al.*,

2020). It has been suggested that to more comprehensively examine the association between governance attributes like boardroom diversity and the performance of companies, future studies need to ponder over other possible intervening factors by incorporating a moderator or a mediator (Song, Yoon and Kang, 2020).

In line with argument and unlike the monitoring role of governance mechanisms, the researchers concentrated on the policy-setting role of governance attributes and examined the mediating impact of capital structure on the relationship between corporate governance and firm performance as it has been suggested that one of the most factors that influence the financial choice of firms is the board of directors (Adusei and Obeng, 2019). In doing so, the study evaluates the interrelationship between the two main factors that are behind the Asian financial crisis in 1997 that severely affected the Malaysian economy, namely corporate governance and the capital structure of corporations (Joh, 2003; Utama, Utama and Amarullah, 2017; Fernández-Temprano and Tejerina-Gaite, 2020). If the capital structure and corporate governance are proven to exert an important part in a firm's performance collectively, therefore, regulators, policymakers, and practitioners of Malaysian public listed companies (PLCs) should start to consider adopting an optimal and integrated structure of capital and governance mechanisms that guarantee the best performance of corporations operating in the Malaysian market.

### **1.3 Problem Statement**

It is commonly held in the literature that the failure of several international companies, such as Enron in 2001, 1Malaysia Development Berhad in 2015, Wirecard in 2020, and Ozy Media in 2021 was attributed to both poor governance system and uncontrolled usage of leverage. However, the literature has concentrated on the corporate governance aspects, and relatively less attention has been paid to the debt behaviour of corporations or the interrelationship between governance and capital structure behaviour of corporates. This is evident by the growing literature on the agency conflict, and the monitoring role of governance attributes in easing the agency conflict. Consequently, corporate governance reforms that have been introduced in

many countries after the crisis have concentrated on the monitoring role of the governance mechanisms. Despite this development, various documents on corporate over-debt behaviour have been released. This trend raises a question of what the interrelationship between corporate governance mechanisms is (as the policy-setting body within a firm, not only the monitoring body), CS, and firm performance.

The Asian financial crisis of 1997 has severely affected many countries, including Malaysia and Thailand (Deesomsak *et al.*, 2004), which was followed by the international financial crisis of 2008 and the collapse of several international firms. These crises have motivated regulators to take several actions in order to prevent them from happening again in the future. For example, the Malaysian government has undertaken numerous initiatives, including the issuance of the Malaysian Code on Corporate Governance (MCCG) by the Malaysian Institute of Corporate Governance (MICG) in the year 2000, to enhance accountability practices after the crisis. Nevertheless, the Companies Act 2016 or MCCG (2000, 2007, 2012, and 2017) does not have a clear suggestion regarding the role of corporate finance as one of the main attributers to the economic downturn in 1997, 2008, and the collapse of several international organizations.

Suto (2003) stressed that the financial crisis was attributed to uncontrolled usage of leverage where firms with excessive leverage became vulnerable to the financial crisis. Similarly, Detthamrong *et al.* (2017, p. 3) said that "*when many firms become too leveraged and/or have a high level of short-term debt (e.g., due to weak corporate governance practices/systems), a financial crisis may occur.*" Also, Mitton (2002) suggested that leverage could be the reason, indirectly, for poor monitoring practices behind the poor stock price performance. Hence, inadequate financial regulation led to corporate overinvestment due to the poor supervision quality have attributed to the crisis occurrence.

In recent years, despite several corporate governance improvements in various nations, including Malaysia, some reports on corporate debt behaviour have been released (Kana, 2019). In 2018, the total credits to the Malaysian private non-financial sectors reached 134 percent of gross domestic product, while during the Asian

financial crisis of 1997 was 167.2 percent. Several reports have been made public regarding corporations' excessive debt behaviour (Kana, 2019). As a result of regulators imposing insufficient financial discipline, there may be too much debt and a possible crisis in the near future. This demonstrates that Malaysian regulatory actions implemented in the aftermath of the financial downturn did not result in improving the FP (Ghazali, 2010). This is evident in the recent failure of major corporations worldwide, such as Enron in 2001, 1Malaysia Development Berhad in 2015, Dick Smith in 2016, Theranos in 2018, Wirecard in 2020, and Ozy Media in 2021.

As mentioned in the earlier section, a report released by Bank Negara Malaysia in 2018 stated that the "*external debt of emerging market economies had risen significantly in the aftermath of the global financial crisis... Malaysia has also experienced an increase in external debt. Malaysia's external debt is higher relative to the emerging market economies median countries.*" This increase was mainly attributed to the private and bank sectors. Thus, the surge is cause for concern, and the high corporate debt levels in the country are worrying which Malaysian companies will become vulnerable to any potential global economic shocks or slowdown (Kana, 2019). Therefore, the increasing concern about the growing debt level of Malaysian corporations, as well as the lack of studies considering the interrelationship between the CG, CS, and FP, are the main incentive and initiatives of the study. It should be noted that, apart from the monitoring role, governance mechanisms help to set different policies, including the financial policy within a firm. Another key component of the governance structure is the board of directors' policy-making role in corporations. According to this point of view, Detthamrong *et al.* (2017) suggested that the board is responsible for approving strategic decisions and monitoring key activities. Adusei and Obeng (2019) asserted that the board of directors is one of the most important features that affect the financial choice of a company.

Empirically, due to the inconsistent findings of previous research investigating the direct link between CG and FP (Bhagat and Bolton, 2008; Detthamrong *et al.*, 2017; Ciftci *et al.*, 2019; Wang *et al.*, 2020), a recent trend in the empirical studies argued that this assertion might be indirect. Several factors were introduced by scholars as a mediator, such as research and development and cash holdings (Zhang,

Chen and Feng, 2014; Karrahem, 2016). However, there is only one research conducted by Detthamrong *et al.* (2017), which used the capital structure as a mediating factor between CG and FP of Thai non-financial corporates during the period 2001–2014. Interestingly, against the general documented evidence in the literature, it was found that; firstly, CG does not affect FP; secondly, corporate governance does not affect capital structure.

Another issue this study intended to address is board tenure. In recent years, boards of directors have gained much attention because of their principal function in protecting the interest of owners against expropriation by owners or managers. Many corporate governance reforms have been made in many countries, such as MCGG. Among other aspects, the reforms emphasized the independence of boards to ensure that the boardroom exerts effective monitoring on management activities and limits the tenure of independent directors as long tenures and familiarity with the management may erode the board's objectivity. Therefore, there has been a general push, led by institutions, regulators, and legislators, toward limiting the tenure of directors (Abdullah, 2016; Husnin, Nawawi and Puteh Salin, 2016; Livnat *et al.*, 2021). Most Malaysian companies nonetheless seemed to focus on the experience and background of long-tenured directors as a justification. Consequently, many reports recently revealed concerning the issue of long-tenured directors that may erode the board's objectivity (Kumar, 2019).

Indeed, a recent survey conducted by Securities Commission Malaysia (SCM) in 2019 titled 'Corporate Governance Monitoring report' was mainly dedicated to this issue. The report shows that in total, about 25% of Malaysian public listed companies have a long-tenured director, and about 273 companies have independent directors who have been working for over twelve years. Furthermore, according to the Securities Commission Malaysia, a total of 414 corporates sought the approval of shareholders with a stand-alone resolution (special business) to retain 742 independent directors in 2018, while 43 companies have not sought approval from shareholders. The increasing number of corporations that intend to keep long-tenured non-executive directors has become a public concern (Kumar, 2019). Empirically, however, little attention was given to addressing the issue of long-tenured directors. After reviewing the literature,

there are only three studies that consider the relationship between long-tenured directors and FP (Meric *et al.*, 2008; Ng *et al.*, 2016; Huang and Hilary, 2018). Yet, these studies were inconclusive and led to mixed results.

In addition, there are other gaps that have been identified in prior literature that are required to be addressed. First, "*despite that there is growing literature connecting CG to FP, there is equally increasing of mixed findings*" (Korac-Kakabadse, Kakabadse and Kouzmin, 2001, p. 24). Therefore, this study responds to Filatotchev and Boyd (2009), Abid *et al.* (2014), and Ahmadi *et al.* (2018), who called for more multiple-theoretical orientation work. Second, the puzzle of the link between CG and CS is still unsolved (Hussainey and Aljifri, 2012), and the empirical evidence of different governance attributes and capital structure association is inconclusive. Therefore, Setiawan and Adelisa (2020) called for more work on this association. Also, introducing more corporate governance variables that have a relationship with capital structure is suggested by (Sewpersadh, 2019) and Hussainey and Aljifri (2012). The latter suggests ownership concentration and independent directors. Third, in relying on fairly small sample sizes, the usefulness of the results from previous research is further limited. Thus, a large sample size or/and period is suggested (Bhagat and Bolton, 2008; Tarus and Ayabei, 2016; Setiawan and Adelisa, 2020).

Forth, a limited number of empirical studies relating diverse boards to CS (Elmagrhi *et al.*, 2018; Adusei and Obeng, 2019), which was suggested to be future research agenda by Adams (2015) and Yang *et al.* (2019). Similarly, lack of empirical evidence investigating the influence of boards' tenure with CS. There is only few studies conducted by Ishak *et al.* (2011), Tarus and Ayabei (2016), and more recently Fernández-Temprano and Tejerina-Gaite (2020) examining this association. Fifth, a relatively small number of studies examine the relationship between cited variables in developing countries compared to developed countries (Puni and Anlesinya, 2020; Li *et al.*, 2020; Tarus and Ayabei, 2016; Naseem *et al.*, 2020). Based on the discussion above, the study attempts to address the issues and limitations identified in the literature by providing additional information about the CG and CS nexus, the CS and FP association, and the influence of CS on the CG and FP association.

## **1.4 Research Aims**

The implementation of CG codes in Malaysia was created to offer a framework that promotes the economic development of the country and enhances investor confidence in the market. Given that the Asian economic downturn in 1997 was attributed to a weak governance system and uncontrolled corporation debt activities, the growing level of debt in many countries, including Malaysia, is worrying. With regard to the gaps identified in the literature, it is necessary for researchers to investigate the interrelation between CG, CS, and FP. Therefore, in order to understand the association between the cited variables of non-financial firms in Malaysia, the study aims to: First, through empirical evidence and recent data, this study aims to study the efficacy of CG practices after a few years from the introduction of new governance regulation Malaysian code of corporate governance (MCCG) in 2017 as well as its impact on FP that results in the transparency of creditors and other involved parties.

The second aim is to investigate the CG and CS association and to assess whether CS mediates the association between the CG and corporate performance of Malaysian public listed companies (PLCs). It is the ultimate aim of this study to see if the capital structure brings a positive enhancement to firms' governance, thus improving the FP of Malaysian PLCs. If the capital structure and corporate governance are proven to exert an important part in a firm's performance collectively, Malaysian PLCs should therefore start to consider adopting an optimal and integrated structure of capital and governance mechanisms that guarantee the best performance of Malaysian PLCs.

## **1.5 Research Questions**

This study seeks to address four broad issues on the capital structure, corporate governance, and performance of Malaysian-listed firms. The following are the primary research questions addressed in this study:



- (i) Does corporate governance influence the firm performance of Malaysian PLCs?
- (ii) Does corporate governance influence the capital structure of Malaysian PLCs?
- (iii) Does capital structure affect the firm performance of Malaysian PLCs?
- (iv) Does capital structure mediate the relationship between corporate governance and firm performance of Malaysian PLCs?

## **1.6 Research Objectives**

The objective of this study is to investigate the interrelationship between capital structure, corporate governance, and the performance of corporations from an emerging economy that has implemented several governance reforms following the economic downturn. The following objectives are a mirror to the study's questions:

- (i) To examine the impact of corporate governance on the firm performance of Malaysian PLCs.
- (ii) To investigate the influence of corporate governance on the capital structure of Malaysian PLCs.
- (iii) To examine the impact of capital structure on firm performance of Malaysian PLCs.
- (iv) To investigate the mediating effect of the capital structure on the relationship between corporate governance and firm performance of Malaysian PLCs.

## 1.7 Research Scope

This study focused on several issues, including investigating the interrelation between CS, CG, and FP of Malaysian PLCs. It covers all industries according to the classification of Bursa Malaysia's sectorial grouping except the financial sector (929 PLCs in the Malaysian market in 2019). Most of the prior studies excluded the financial firms from the sample as this industry is subject to different regulatory requirements, financial reporting standards, and regulation compliance (Ramli *et al.*, 2019; Vijayakumaran and Vijayakumaran, 2019b; Sewpersadh, 2019).

Furthermore, the data is manually collected from the Bursa Malaysia website for the 5-years period starting from 2015 to 2019, as the majority of previous studies used a sample prior to 5 years and above (Sheikh and Wang, 2012; Alves, Couto and Francisco, 2015; Vijayakumaran and Vijayakumaran, 2019b; Al-ahdal *et al.*, 2020; Puni and Anlesinya, 2020). This period is chosen as it covers the recent governance reform that took place in the Malaysian market in 2012 and 2017. It has been reported that such reforms might take a few years to show their effect. Ghazali (2010) suggested that recovery from the undesirable impact of the crisis and new government regulations might take a few years before it shows the intended result. Furthermore, the majority of previous studies used a sample prior to 5 years and above (Sheikh and Wang, 2012; Alves, Couto and Francisco, 2015; Vijayakumaran and Vijayakumaran, 2019b; Al-ahdal *et al.*, 2020; Puni and Anlesinya, 2020), as it is sufficient period to run advance analytical approaches such as two stages least square or generalized method of the moment. Additionally, the small sample size is considered one of the common limitations in prior work. Thus, selecting a long period and size would help to overcome this limitation and provide a large number of firm-year observations to test the research hypotheses.

The available public data (secondary data) is retrieved from written public records and companies' annual financial and governance reports. After reviewing the literature, twenty-four hypotheses are developed to be tested in the study. Also, the quantitative research method is adopted to answer the research's questions and to achieve the research objectives because of the nature of the data collected as this

method is widely used in this field (as in, Ciftci *et al.*, 2019; Waheed and Malik, 2019; Al Farooque, Buachoom and Sun, 2020). This methodology was chosen as it is beneficial for evaluating research hypotheses by examining the validity of the relationships that comprise well-established theory (Creswell and Creswell, 2016).

## **1.8 Significance of the Study**

Generally, the significant contributions of this study are twofold, namely, theoretical development and policy implication. In relation to theoretical importance, the issue of inconsistent results of prior research on the impact of CG on FP is frequently highlighted in the literature. This study assesses the policy-setting role of the board of directors that eventually effect the performance of firms. It should be noted that few recent studies examine the indirect relationship between CG and FP. The study is the first to be conducted in the Malaysian context (after considering the lack of related literature), and it is expected to add valuable advancement to the CG, CS, and FP literature. Thus, the foremost significance of this study is to assess the mediating influence of capital structure on the CG and FP association that helps to understand the nature of the interrelationship between these factors, as suggested by several scholars (Ward *et al.*, 2009; Mertzanis *et al.*, 2018; Chabachib *et al.*, 2020; Naseem *et al.*, 2020). Indeed, Ward *et al.* (2009, p. 658) said that "*future research should look beyond a direct link between governance and performance towards the contingencies and mediators.*" Also, Chabachib *et al.* (2020), who examined the mediated relationship between corporate governance and firm performance through capital structure, called for similar research to include more governance variables (audit committee) into the model.

In relation to policy implications, this study attempts to investigate the relationship between CG, CS, and FP individually and together. Corporate governance variables like board tenure have received relatively less attention in the literature, and a small number of studies include it in their models, which has been attempted to be addressed in the study. In doing so, it provides an incentive to encourage corporate policymakers and executives to adopt governance codes structure of best practices. For

example, empirical evidence in which it is necessary for corporations to focus not only on the number of independent directors or their background but also on whether they are able to work independently from managers.

Lastly, the empirical result and the implications of this study can be extended to other countries with similar emerging markets and governance policies. Moreover, with regard to gaps and weaknesses that have been identified in the literature, the study contributes to the literature by assessing the association among cited variables and taking into account the methodological and statistical issues acknowledged in prior work.

## **1.9 Operational Definitions**

This section briefly illustrates the definition of all variables of this study; Including corporate governance, firm performance, boardroom size, ownership concentration, boardroom diversity, boardroom independence, boardroom tenure, and capital structure. The brief definitions are as follows:

- (i) Audit committee (AC) – Refers to the subcommittee of the boardroom that serves independent from the board in monitoring the preparation of annual statements and disclosing them accurately in accordance with disclosure standards within the internal control system (Detthamrong et al., 2017; MCCG, 2017).
- (ii) Board diversity (BD) – Reflects the presence of female directors in the boardroom of a firm.
- (iii) Board independence (BI) – Refers to the presence of outside directors in the boardroom that may increase a boardroom's overall performance and effectiveness (Singh et al., 2018).

- (iv) Board size (BS) – This refers to the total number of directors in the corporate boardroom as used in most of the prior work (Detthamrong et al., 2017; Mertzanis et al., 2018).
- (v) Board tenure (BT) – It is the length of a director's tenure in the boardroom. It is the number of years directors have worked in the boardroom.
- (vi) Capital structure (CS) – Refers to the optimal combination of different sources of funds in the corporations (Tarus and Ayabei, 2016).
- (vii) Corporate governance (CG) – Refers to mechanisms and frameworks used to guide and maintain the company's operations and activities towards achieving economic stability with the primary aim of enhancing long-term shareholder value whilst considering the interests of all stakeholders (MCCG, 2017).
- (viii) Firm performance (FP) – It is the ability of firms to achieve their objectives by generating profits and expanding the resources effectively and efficiently.
- (ix) Ownership structure (OC) – Refers to the status of the distribution of shares among shareholders. In other words, it refers to the extent to which equity in the corporation is held by a single shareholder.

### **1.10 Organization of the Study**

This thesis is structured into five chapters. Chapter One covers the background to the study and problem statement followed by the research questions, objectives of the study, significance of the study and the scope of the study. Chapter Two presents introduction and review of relevant conceptual and theoretical literatures related to CG, CS, and FP. It also summarises and discusses literature related to these variables, followed by progress in the development and establishment of hypotheses the study intends to examine. Lastly, a summary of the chapter and gaps identified in the existing literature are presented.

Chapter Three discusses the methodology adopted by describing the method of measuring parameters along with the methodology undertaken for empirical analyses, the research process, research design, research paradigm, and data collection. It highlights ~~explains~~ the data analysis procedure, the definition and measurements of the variables, and models specification. Chapter Four presents the findings of this study on the relationship between corporate governance characteristics and firm performance, corporate governance characteristics and capital structure, and capital structure and firm performance. Finally, Chapter Five elaborates the findings of the study, which conclusion, implications, and recommendations for future studies follows.

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## Appendices

### Appendix A The Checklist of All the Study Variables

Indicator	Measure	Data source
ROA	$ROA = \frac{\text{net profit}}{\text{total assets}} \times 100.$	DataStream
ROE	$ROE = \frac{\text{net profit}}{\text{total value of equity}} \times 100.$	DataStream
SG	$SG = \frac{\text{Sales}_{i,t} - \text{Sales}_{i,t-1}}{\text{Sales}_{i,t-1}} \times 100.$	DataStream
AG	$AG = \frac{\text{Assets}_{i,t} - \text{Assets}_{i,t-1}}{\text{Assets}_{i,t-1}} \times 100.$	DataStream
BS	Number of directors on the board	Annual report
OC	Proportion of total stock held by top five shareholders	Annual report
BD	Proportion of women on a board	Annual report
BI	Proportion of nonexecutive directors on the board	Annual report
BT	Number of years director serves on a particular board	Annual report
ACS	The total number of directors on the audit committee	Annual report
ACI	The percentage of independent directors to total number of directors in audit committee	Annual report
ACM	The number of times which an audit committee meet annually	Annual report
LTD	Long-term debt to total assets (%)	DataStream
STD	Total short-term debt to total assets (%)	DataStream
TD	Total debt to total assets (%)	DataStream
FAGE	Computed by the natural logarithm of the number of years since the firm was listed.	DataStream
FSIZE	Measured as the natural logarithm of total assets	DataStream
SG	The relative increase in sales over the previous year (%)	DataStream
INDUSTRY	Value 1 if the firm is from a particular industry and 0 otherwise (industrial dummies).	DataStream
TANG	Total fixed assets to the book value of total assets (%).	DataStream

## Appendix B The Companies Included in the Final Sample

No.	Name	Sector	No.	Name	Sector
1	Ageson	Construction	265	Knusford Bhd	Industrial
2	Benalec Holdings Bhd	Construction	266	Kobay Technology Bhd	Industrial
3	Brem Holding Berhad	Construction	267	Komarkcorp Berhad	Industrial
4	Crest Builder Hldgs	Construction	268	Kps Consortium Bhd	Industrial
5	Dkls Industries	Construction	269	Ktg Bhd	Industrial
6	Econpile	Construction	270	Kumpulan Fima Berhad	Industrial
7	Ekovest Berhad	Construction	271	Kumpulan H & L	Industrial
8	Eversendai Corporation	Construction	272	Kumpulan Jetson Bhd	Industrial
9	Fajarbaru Build	Construction	273	Kumpulan Perangsang	Industrial
10	Gabungan Aqrs Bhd	Construction	274	Kym Holdings Bhd	Industrial
11	Gadang Holdings	Construction	275	Lb Aluminium Berhad	Industrial
12	Gamuda Berhad	Construction	276	Leader Steel	Industrial
13	George Kent	Construction	277	Leon Fuat Bhd	Industrial
14	Ho Hup Construction	Construction	278	Leweko Resources Bhd	Industrial
15	Hock Seng Lee Berhad	Construction	279	Lfe Corp Berhad	Industrial
16	Ijm Corporation Bhd	Construction	280	Lion Industries	Industrial
17	Ireka Corporation	Construction	281	Lion Posim	Industrial
18	Jaks Resrcs Bhd	Construction	282	Luster Industries	Industrial
19	Kerjaya Prospek Group	Construction	283	Luxchem Corp	Industrial
20	Kimlun Corporation	Construction	284	Lysaght Galvanized	Industrial
21	Lebtech Bhd	Construction	285	Malaysia Smelting	Industrial
22	Melati Ehsan Hold	Construction	286	Malaysia Steel Works	Industrial
23	Mercury Industries	Construction	287	Mce Holdings Bhd	Industrial
24	Mgb Bhd	Construction	288	Mclean Technologies Berhad	Industrial
25	Mitrajaya Holdings	Construction	289	Melewar Industrial	Industrial
26	Mtd Acpi Eng Bhd	Construction	290	Mentiga Corporation	Industrial
27	Mudajaya Group Bhd	Construction	291	Metrod Holdings Bhd	Industrial
28	Muhibbah Engineering	Construction	292	Mieco Chipboard	Industrial
29	Ocr Group Bhd	Construction	293	Minetech Resrcs Bhd	Industrial
30	Pesona Metro	Construction	294	Pmb Tech Berhad	Industrial
31	Pimpinan Ehsan	Construction	295	Poly Glass Fibre (M)	Industrial
32	Pintaras Jaya Berhad	Construction	296	Press Metal Alum	Industrial
33	Protasco Bhd	Construction	297	Prestar Resources	Industrial
34	Puncak Niaga Hldgs	Construction	298	Priceworth International Berhad	Industrial
35	Sc Estate Builde	Construction	299	Progressive Impact	Industrial
36	Stella Holdings Bhd	Construction	300	Public Packages Hldg	Industrial
37	Sycal Ventures	Construction	301	Quality Concrete Holdings Berhad	Industrial
38	Trc Synergy Bhd	Construction	302	Ralco Corporation Berhad	Industrial
39	Wce Holdings Bhd	Construction	303	Resintech Berhad	Industrial

No.	Name	Sector	No.	Name	Sector
40	Wct Holdings Bhd	Construction	304	Rgb Inter	Industrial
41	Widad Group	Construction	305	Rgt Berhad	Industrial
42	Zecon Berhad	Construction	306	Rohas Tecnic Bhd	Industrial
43	Zelan Bhd	Construction	307	Sam Engr.& Equ. (M)	Industrial
44	7-Eleven Malay	Consumer	308	Samchem Holdings	Industrial
45	Acoustech Bhd	Consumer	309	Astral Asia Berhad	Plantation
46	Advance Synergy Bhd	Consumer	310	Batu Kawan Berhad	Plantation
47	Aeon Co (M) Bhd	Consumer	311	Boustead Plantations	Plantation
48	Airasia Group	Consumer	312	Cepatwawasan Grp	Plantation
49	Airasia X Bhd	Consumer	313	Dutaland Bhd	Plantation
50	Ajinomoto Malaysi	Consumer	314	Far East Holdings	Plantation
51	Amway (Malaysia)	Consumer	315	Fgv Holdings Bhd	Plantation
52	Apollo Food Holdings	Consumer	316	Genting Plantations	Plantation
53	Asia Brands Bhd	Consumer	317	Golden Land Berhad	Plantation
54	Asia File Corp Bhd	Consumer	318	Gopeng Berhad	Plantation
55	Atlan Holdings Bhd	Consumer	319	Hap Seng Plantations Holdings Berhad	Plantation
56	Avillion Bhd	Consumer	320	Harn Len Corp Bhd	Plantation
57	Bahvest Re	Consumer	321	Ijm Plantations Bhd	Plantation
58	Berjaya Land Bhd	Consumer	322	Innoprise Plantation	Plantation
59	Berjaya Sports Toto	Consumer	323	Ioi Corporation Bhd	Plantation
60	Bermaz Auto Bhd	Consumer	324	Jaya Tiasa Hldgs Bhd	Plantation
61	Bonia Corporation	Consumer	325	Kim Loong Resources	Plantation
62	Brahim's Holdings	Consumer	326	Kretam Holdings Bhd	Plantation
63	British Amer Tobacco	Consumer	327	Kuala Lumpur Kepong	Plantation
64	C.I. Holdings Berhad	Consumer	328	Kwantas Corp Bhd	Plantation
65	Cab Cakaran Corp Bhd	Consumer	329	Mhc Plantations Bhd	Plantation
66	Caely Holdings Bhd	Consumer	330	Npc Resources Bhd	Plantation
67	Cam Resources Bhd	Consumer	331	Pinehill Pacific	Plantation
68	Carlsberg Brewery	Consumer	332	Pls Plantations Bhd	Plantation
69	Cck Consol	Consumer	333	Rimbunan Sawit Bhd	Plantation
70	Cheetah Holdings Bhd	Consumer	334	Riverview Rubber	Plantation
71	China Ouhua	Consumer	335	Sarawak Oil Palms	Plantation
72	Classic Scenic Bhd	Consumer	336	Sarawak Plantation	Plantation
73	Cni Holdings Berhad	Consumer	337	Sin Heng Chan (Malaya)	Plantation
74	Cocoaland Hldgs	Consumer	338	Th Plantations Bhd	Plantation
75	Cwg Holdings Bhd	Consumer	339	Tsh Resources Berhad	Plantation
76	Cycle & Carriage	Consumer	340	United Malacca Bhd	Plantation
77	Dksh Holdings	Consumer	341	United Plantations	Plantation
78	Drb-Hicom Berhad	Consumer	342	Amcorp Prop	Property
79	Dutch Lady Milk	Consumer	343	Ark Resources Bhd	Property
80	Eastland Equity	Consumer	344	Asian Pac Holdings	Property
81	Eka Noodles Bhd	Consumer	345	Ayer Holdings Bhd	Property



No.	Name	Sector	No.	Name	Sector
82	Emico Holdings Bhd	Consumer	346	Bcb Berhad	Property
83	Eng Kah Corporation	Consumer	347	Berjaya Assets	Property
84	Esthetics Intn'l	Consumer	348	Bertam Alliance	Property
85	Euro Holdings Bhd	Consumer	349	Bina Darulaman Bhd	Property
86	Eurospan Holdings	Consumer	350	Country Heights	Property
87	Fcw Holdings Berhad	Consumer	351	Country View Bhd	Property
88	Fiamma Holdings Bhd	Consumer	352	Crescendo Corp	Property
89	Focus Dynamics	Consumer	353	Damansara Realty Bhd	Property
90	Focus Point	Consumer	354	Dps Resources Bhd	Property
91	Formosa Prosonic Ind	Consumer	355	Eastern & Oriental	Property
92	G3 Global Bhd	Consumer	356	Eco World Develop	Property
93	Genting Berhad	Consumer	357	Ecofirst Conso Bhd	Property
94	Grand Central	Consumer	358	Encorp Berhad	Property
95	Green Ocean Corp	Consumer	359	Enra Group Bhd	Property
96	Greenyard Bhd	Consumer	360	Eupe Corporation Bhd	Property
97	Guan Chong Berhad	Consumer	361	Ewein Berhad	Property
98	Hai-O Enterprise Bhd	Consumer	362	Farlim Group	Property
99	Harrisons Hdg. (Mal.)	Consumer	363	Global Oriental Bhd	Property
100	Hb Global Ltd	Consumer	364	Glomac Bhd	Property
101	Heineken Malay	Consumer	365	Grand Hoover Berhad	Property
102	Hong Leong Indus Bhd	Consumer	366	Gromutual Bhd	Property
103	Hup Seng Industries	Consumer	367	Guocoland Malay	Property
104	Hwa Tai Industries	Consumer	368	Hck Capital Group	Property
105	Iconic Worldwide Bhd	Consumer	369	Hua Yang Bhd	Property
106	Iq Group Hldgs	Consumer	370	I-Berhad	Property
107	Jaycorp Bhd	Consumer	371	Ibraco Bhd	Property
108	Jerasia Capital Bhd	Consumer	372	Ideal United Bintang	Property
109	Johore Tin Berhad	Consumer	373	Igb Bhd	Property
110	Kanger International	Consumer	374	Ioi Properties Group	Property
111	Karex	Consumer	375	Iskander Waterfront	Property
112	Kawan Food Berhad	Consumer	376	Ivory Properties	Property
113	Khind Holdings	Consumer	377	Jiankun International	Property
114	Konsortium Trans	Consumer	378	Jkg Land Bhd	Property
115	K-Star Sports Ltd	Consumer	379	Ken Holdings Berhad	Property
116	Landmarks Berhad	Consumer	380	Ksl Holdings Bhd	Property
117	Latitude Tree	Consumer	381	Land & General Bhd	Property
118	Lay Hong Berhad	Consumer	382	Lbi Capital Bhd	Property
119	Lee Swee Kiat Group	Consumer	383	Lbs Bina Group Bhd	Property
120	Lii Hen Industries	Consumer	384	Lien Hoe Corporation	Property
121	Ltkm Bhd	Consumer	385	Magna Prima Berhad	Property
122	Macpie Bhd	Consumer	386	Malaysia Pacific	Property
123	Magni Tech	Consumer	387	Malaysian Resources	Property
124	Magnum Bhd	Consumer	388	Malton Bhd	Property

No.	Name	Sector	No.	Name	Sector
125	Marco Holdings Bhd	Consumer	389	Mb World Group	Property
126	Mbm Resources Berhad	Consumer	390	Mct Bhd	Property
127	Mesb Berhad	Consumer	391	Menang Corporation	Property
128	Milux Corporation Berhad	Consumer	392	Mk Land Holdings Bhd	Property
129	Minda Global Bhd	Consumer	393	Mkh Bhd	Property
130	Msm Malaysia	Consumer	394	Naim Holdings Berhad	Property
131	Poh Huat Res Hldgs	Consumer	395	Oriental Interest	Property
132	Poh Kong Holdings	Consumer	396	Osk Holdings	Property
133	Power Root Bhd	Consumer	397	Paramount Corp Bhd	Property
134	Ppb Group Bhd	Consumer	398	Pegasus Heights Bhd	Property
135	Prg Holdings	Consumer	399	Plb Engineering	Property
136	Prolexus Berhad	Consumer	400	Plenitude Berhad	Property
137	Pwf Corpo	Consumer	401	Rapid Synergy Berhad	Property
138	Ql Resources Bhd	Consumer	402	Sapura Resources Bhd	Property
139	Resorts World Bhd	Consumer	403	Sbc Corporation Bhd	Property
140	Sand Nisko Cap	Consumer	404	Seal Inc Bhd	Property
141	Alam Maritim Resrcs	Energy	405	Selangor Dredging	Property
142	Bumi Armada Bhd	Energy	406	Shl Consolidated Bhd	Property
143	Carimin	Energy	407	South Malaysia	Property
144	Dayang Enterprise	Energy	408	Sp Setia Bhd	Property
145	Deleum Bhd	Energy	409	Talam Transform Bhd	Property
146	Dialog Group Berhad	Energy	410	Thriven Global Bhd	Property
147	Hengyuan Refining Co	Energy	411	Uoa Develop	Property
148	Icon Offshore Berhad	Energy	412	Wmg Hold	Property
149	Knm Group Bhd	Energy	413	Ynh Property Bhd	Property
150	Malaysia Marine and Heavy Engineering Holdings Berhad	Energy	414	Yong Tai Berhad	Property
151	Perdana Petr	Energy	415	Al-Akqar Healthcare	Realestate
152	Petra Energy Bhd	Energy	416	Amanahraya Real	Realestate
153	Petron Malaysia	Energy	417	Amfirst Real	Realestate
154	Reach Energy Bhd	Energy	418	Atrium Real	Realestate
155	Sapura Energy Bhd	Energy	419	Axis Reit	Realestate
156	Scomi Energy Ser	Energy	420	Capitaland Malay	Realestate
157	Scomi Group Bhd	Energy	421	Igb Real	Realestate
158	Sino Hua-An International Berhad	Energy	422	Klcc Property Hldgs	Realestate
159	T7 Global Bhd	Energy	423	Mrcb-Quill Reit	Realestate
160	Th Heavy Eng	Energy	424	Pavilion Real	Realestate
161	Velesto Ene	Energy	425	Sunway Reit	Realestate
162	Wah Seong Corp	Energy	426	Appasia Bhd	Technology
163	Yinson Holdings	Energy	427	Arb Bhd	Technology
164	Adventa Bhd	Healthcare	428	Asdion Berhad	Technology
165	Apex Healthcare Bhd	Healthcare	429	Censof Holdings Bhd	Technology

No.	Name	Sector	No.	Name	Sector
166	Careplus Group B	Healthcare	430	D&O Green Technologies Berhad	Technology
167	Hartalega Holdings	Healthcare	431	Dagang Nexchange Bhd	Technology
168	Ihh Healthcare	Healthcare	432	Dataprep Holdings	Technology
169	Kossan Rubber	Healthcare	433	Datasonic	Technology
170	Kotra Industries Bhd	Healthcare	434	Digistar Corp Bhd	Technology
171	Kpj Healthcare Bhd	Healthcare	435	Diversified Ga	Technology
172	Pharmaniaga Berhad	Healthcare	436	Edaran Bhd	Technology
173	Tmc Life Sciences	Healthcare	437	Elsoft Research	Technology
174	Top Glove Corp	Healthcare	438	Excel Force Msc Bhd	Technology
175	Y.S.P Southeast Asia	Healthcare	439	Frontken Corp Bhd	Technology
176	Ablegroup Bhd	Industrial	440	Genetec Tech Bhd	Technology
177	Abm Fujiya	Industrial	441	Ghl Systems Bhd	Technology
178	Advanced Packaging Technology	Industrial	442	Globetronics Technology Berhad	Technology
179	Ae Multi Holdings	Industrial	443	Grand-Flo Bhd	Technology
180	Ahmad Zaki Resources	Industrial	444	Heitech Padu Berhad	Technology
181	Ajiya Berhad	Industrial	445	Ifca Msc Bhd	Technology
182	Alcom Group	Industrial	446	Inari Amertron Bhd	Technology
183	Amalgamated Indl.Steel	Industrial	447	Industronics Berhad	Technology
184	Analabs	Industrial	448	Iris Corporation	Technology
185	Ancom Berhad	Industrial	449	Jcy Intl	Technology
186	Ann Joo Resources	Industrial	450	Jf Technology Bhd	Technology
187	Anzo Holdings	Industrial	451	Jhm Consolidated Bhd	Technology
188	Apb Resources Bhd	Industrial	452	Kesm Industries Bhd	Technology
189	Apm Automotive	Industrial	453	Kronologi	Technology
190	A-Rank Berhad	Industrial	454	Malaysian Pacific	Technology
191	Asia Poly Hldg Bhd	Industrial	455	Managepay	Technology
192	Astino Berhad	Industrial	456	Mesiniaga Berhad	Technology
193	At Systematization	Industrial	457	Microlink Sol Bhd	Technology
194	Ata Ims Bhd	Industrial	458	Mikro Msc Bhd	Technology
195	Atta Global Group	Industrial	459	Mmag Holdings	Technology
196	Awc Berhad	Industrial	460	My E.G. Services Bhd	Technology
197	Ays Ventures	Industrial	461	N2n Connect Bhd	Technology
198	Berjaya Corp	Industrial	462	Netx Holdings Berhad	Technology
199	Bintai Kinden Corp	Industrial	463	Notion Vtec Berhad	Technology
200	Boilermech Hold	Industrial	464	Nova Msc Bhd	Technology
201	Borneo Oil Bhd	Industrial	465	Omesti Bhd	Technology
202	Boustead Holdings	Industrial	466	Opensys (M) Bhd	Technology
203	Box Pak Malaysia	Industrial	467	Pentamaster Corp	Technology
204	Bp Plastics Hldg Bhd	Industrial	468	Smrt Holdings Bhd	Technology
205	Bright Packaging	Industrial	469	Solution Group	Technology
206	Bsl Corporation	Industrial	470	Systech Berhad	Technology
207	Btm Resources Bhd	Industrial	471	Technodex Bhd	Technology

No.	Name	Sector	No.	Name	Sector
208	Cahaya Mata Sarawak	Industrial	472	Tfp Solutions Bhd	Technology
209	Can-One Berhad	Industrial	473	Theta Edge Bhd	Technology
210	Cb Ind Product Hldgs	Industrial	474	Turiya Bhd	Technology
211	Chemical Company	Industrial	475	Amtel Holdings Bhd	Telecommunication
212	Chin Well Holdings	Industrial	476	Astro Malaysia	Telecommunication
213	Choo Bee Metal Ind	Industrial	477	Axiata Group	Telecommunication
214	Cn Asia Corp	Industrial	478	Digi.Com Berhad	Telecommunication
215	Comfort Gloves	Industrial	479	Green Packet Berhad	Telecommunication
216	Comintel Corp Bhd	Industrial	480	Innity Corp	Telecommunication
217	Compugates Hldgs	Industrial	481	M3 Tech	Telecommunication
218	Computer Forms Mal	Industrial	482	Maxis Bhd	Telecommunication
219	Concrete Engineering	Industrial	483	Media Prima Bhd	Telecommunication
220	Csc Steel Hldgs Bhd	Industrial	484	Nexgram Holdings Bhd	Telecommunication
221	Cymao Holdings Bhd	Industrial	485	Opcom Holdings Bhd	Telecommunication
222	Cypark Resources	Industrial	486	Pelangi Publishing	Telecommunication
223	Destini	Industrial	487	Privasia Tech	Telecommunication
224	Dfcity Group Berhad	Industrial	488	Puc Berhad	Telecommunication
225	Dominant Enterprise	Industrial	489	Redtone Int'l Bhd	Telecommunication
226	Dufu Technology Corp	Industrial	490	Sasbadi Holdings Bhd	Telecommunication
227	Efficient E-Solution	Industrial	491	Time Dotcom Bhd	Telecommunication
228	Eg Industries Bhd	Industrial	492	Ancom Logistics Bhd	Transportation
229	Eita Resources	Industrial	493	Bintulu Port	Transportation
230	Eksons Corp Bhd	Industrial	494	Boustead Heavy Industries Corporation	Transportation
231	Engtex Group Bhd	Industrial	495	Chin Hin Group Property	Transportation
232	Eonmetall Group Berhad	Industrial	496	Cj Century Logistics Holdings	Transportation
233	Ep Manufacturing	Industrial	497	Complete Logistic	Transportation
234	Es Ceramics	Industrial	498	Ea Technique (M) Bhd	Transportation
235	Evergreen Fibreboard	Industrial	499	Freight Mngt Hldgs	Transportation
236	Favelle Favco Berhad	Industrial	500	G Capital Bhd	Transportation
237	Fima Corporation Bhd	Industrial	501	Gd Exp Carrier Bhd	Transportation
238	Fitters Diversified	Industrial	502	Harbour-Link Group	Transportation
239	Focus Lumber	Industrial	503	Hubline Bhd	Transportation
240	Ge-Shen Corp	Industrial	504	Integrated Logistics	Transportation
241	Gfm Services Bhd	Industrial	505	Lingkaran Trans Kota	Transportation
242	Globaltec Formation Berhad	Industrial	506	Malaysia Airports	Transportation
243	Golden Pharos Berhad	Industrial	507	Malaysian Bulk	Transportation
244	Gpa Holdings Berhad	Industrial	508	Misc Bhd	Transportation
245	Guh Holdings Bhd	Industrial	509	Mmc Corporation Bhd	Transportation
246	Hap Seng Consolidate	Industrial	510	Nationwide Express	Transportation
247	Heveaboard Bhd	Industrial	511	Perak Corp Bhd	Transportation
248	Hextar Glo	Industrial	512	Pos Malaysia Bhd	Transportation

<b>No.</b>	<b>Name</b>	<b>Sector</b>	<b>No.</b>	<b>Name</b>	<b>Sector</b>
249	Hiap Huat Holding	Industrial	513	Sealink Internat	Transportation
250	Hiap Teck Venture	Industrial	514	See Hup Consol	Transportation
251	Hil Industries Bhd	Industrial	515	Shin Yang Shipping	Transportation
252	Ho Wah Genting Bhd	Industrial	516	Straits Int	Transportation
253	Hume Industries Bhd	Industrial	517	Suria Capital Hldgs	Transportation
254	Imaspro Corp Bhd	Industrial	518	Tas Offshore	Transportation
255	Jade Mar	Industrial	519	Tasco Bhd	Transportation
256	Jag Bhd	Industrial	520	Tiong Nam Log Hldgs	Transportation
257	K Seng Seng	Industrial	521	Brite-Tech Bhd	Utilities
258	Keck Seng (M) Bhd	Industrial	522	Gas Malay	Utilities
259	Kein Hing International Berhad	Industrial	523	Mega First Corp	Utilities
260	Kelington Group	Industrial	524	Pba Holdings Bhd	Utilities
261	Kia Lim Berhad	Industrial	525	Petronas Gas Berhad	Utilities
262	Kim Hin Industry Bhd	Industrial	526	Ranhill Utilities	Utilities
263	Kinsteel Bhd	Industrial	527	Salcon Bhd	Utilities
264	Kkb Engineering	Industrial	528	Taliworks Corp	Utilities

## LIST OF PUBLICATIONS

### Journal with Impact Factor

1. **Khatib, S. F. A.**, Abdullah, D. F., Elamer, A. A., and Abueid, R. (2021) ‘Nudging toward diversity in the boardroom: A systematic literature review of board diversity of financial institutions’, *Business Strategy and the Environment*, 30(2), 985–1002. doi: 10.1002/bse.2665. **(Q1, IF: 8.6)**

### Indexed Journal

1. **Khatib, S. F. A.**, Abdullah, D. F., Elamer, A. A., and Hazaea, S. A., (2022) ‘The Development of Corporate Governance Literature in Malaysia: A Systematic Literature Review and Research Agenda’, *Corporate Governance International Journal of Business in Society*, 22(5), 1026-1053. <https://doi.org/10.1108/CG-12-2020-0565>. **(Indexed by WEB OF SCIENCE and SCOPUS)**
2. **Khatib, S.F.A.**, Abdullah, D.F., Elamer, A., Yahaya, I., and Owusu, A. (2021) ‘Global trends in board diversity research: A bibliometric view’. *Meditari Accounting Research*, In Press. doi:10.1108/MEDAR-02-2021-1194. **(Indexed by WEB OF SCIENCE and SCOPUS)**
3. **Khatib, S.F.A.**, Abdullah, D.F., Al Amosh, H., Bazhair, A.H. and Kabara, A.S. (2022), "Shariah auditing: analyzing the past to prepare for the future", *Journal of Islamic Accounting and Business Research*, 13(5) 791-818. <https://doi.org/10.1108/JIABR-11-2021-0291>. **(Indexed by WEB OF SCIENCE and SCOPUS)**
4. **Khatib, S. F.**, Abdullah, D. F., Hendrawaty, E., and Elamer, A. A. (2021) ‘A bibliometric analysis of cash holdings literature: Current status, development, and agenda for future research’, *Management Review Quarterly*, In Press. doi: 10.1007/s11301-021-00213-0. **(Indexed by SCOPUS)**
5. **Khatib, S. F.**, Abdullah, D. F., Hendrawaty, E. and Yahaya, S. I. (2020) ‘Corporate governance mechanisms and capital structure’, *Journal of Critical Reviews*, 7(16), 463–471. doi: 10.31838/jcr.07.16.55. **(Indexed by SCOPUS)**

### **Non-indexed Journal**

1. **Khatib, S. F.**, Abdullah, D. F., Kabara, A. I., Hazaea, S. A., and Rajoo T. S. (2020) 'Does Debts have any Impact on Governance Bundle and Agency Costs? Over-Governance Hypothesis', *Technium Social Sciences Journal*, 9(1), 384-396. doi: 10.47577/tssj.v9i1.1003.