

ENVIRONMENT, SOCIAL, GOVERNANCE (ESG)  
FACTORS AND THE IMPACT ON MARKET VALUE  
ADDED (MVA) FOR MALAYSIAN PUBLIC LISTED  
COMPANIES

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Environment, Social, Governance (ESG) factors and the  
impact on Market Value Added (MVA) for Malaysian  
Public Listed Companies

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A square image showing a handwritten signature in blue ink. The signature is stylized and appears to be the name 'Lim'.

Signature:

Date: April 2022

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## LIST OF ABBREVIATIONS

CG	Corporate Governance
MCCG	Malaysian Code of Corporate Governance
CSR	Corporate Social Responsibility
IV	Independent Variable
DV	Dependent Variable
MV	Moderator Variable
PLCs	Public Listed Companies
FTSE4GBM	FTSE4Good Bursa Malaysia
EP	Economic Profit
EVA	Economic Value Added
MVA	Market Value Added
CFROI	Cash Flow Return on Investment
CFP	Corporate Financial Performance
AVE	Average Variance Extracted
EF	Environmental Factors
SF	Social Factors
GF	Governance Factors
CR	Composite reliability

## ABSTRACT

There is confusion on many market standards when environmental, social, and governance (ESG) topics recently increased awareness among countries and companies. However, the ESG catalysts and market analysts widely prefer the Bloomberg database on the ESG score. Hence, this study explores the impact of ESG factors on market value added (MVA) among the public listed companies in Malaysia. A sample size of 90 public listed companies from Bursa Malaysia listed under the main market, ACE market and LEAP market for nine years, from 2012- to 2020, which resulted in 810 observations. The partial least squares structural equation modelling (PLS-SEM) and confirmatory factor analysis are utilized as the research methodologies of this study. The analysis revealed that the Bloomberg ESG score has a positive but no significant relationship with Market Value Added (MVA). Only 90 out of 967 public listed companies in Bursa Malaysia have the ESG score, which results in the overall insignificant of the ESG score on the firm's MVA.

# **CHAPTER 1**

## **INTRODUCTION**

### **1.0 Introduction**

This chapter will briefly discuss the factors and impacts of Environment, Social and Governance (ESG) towards market value (MVA) on Malaysian public listed companies (PLCs). Total eight sections in this chapter which first section is about the background of the study. In the second section, will discuss about current situation of ESG in Malaysia, follow by problem statements of this research at section two and continue with research objectives will be discussed at section three. Research questions for the overall study will discuss at section four and section five will be significant of the study then.

### **1.1 Background of study**

Unexpected COVID 19 pandemics had attacked the whole world which first started around November 2019 rather than economic storm in 2020 as per prediction by economists or the professions. However, it considers another type of global financial crisis. Not only economic of one country is affected but globally even other industries like logistic, aviation, manufacture, banking, traditional business and even many more. Shen, Fu, Pan, Yu, & Chen (2020) highlighted that COVID-19 pandemic caused unrecovered results on all over the world due to movement control and lock down that weakened citizens' spending power. Because of relating people, firm performance are affected indeed and business operations also affected indirectly. It is a huge challenge for all business leaders around the world while running their business during this pandemic due to several restrictions imposed by

governments (“Covid-19: Some.....”, 2021) had disrupted their original plans. Martin, Brindisi, & Kay (2020) stated that issues caused by the pandemic crisis had brought more corporate leaders’ attention especially related economic effects and social justice, even more willing explore deeper the purpose of the business.

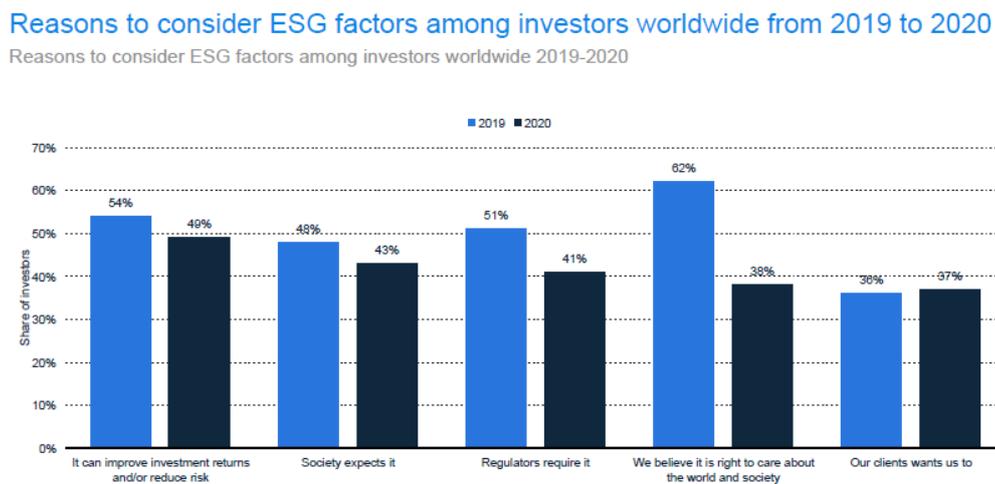
Alsayegh, Rahman, & Homayoun (2020) had commented that poor risk management practices, environmental disaster, societal problems, improper business conduct and corporate sustainability development issues has drawn a number of scholar’s attention due to global economic crises in 2007 -2009. From that, many companies realized that traditional shareholder-oriented standpoint in focusing on maximizing monetary returns to shareholder has changed. To achieve corporate sustainability, components of social, economic and environmental (EES) performance can enhance shareholders’ value, efficiency and company sustainable growth (Alsayegh et al., 2020).

From above, it seems it is a turning point of the world by giving a chance for corporate leaders to introspect the way of manage their companies in order to fit the coming new era. The rules of corporate governance had rewrite as organization shall not only focus on only maximizing shareholders’ wealth but other stakeholders’ interest as well. Leading to voice out for greater corporate accountability and strengthen the controls over public listed companies. Therefore huge attention and demand of ESG topic was introduced many years ago which started at western countries. Organizations all over the world spotted the necessity of ESG concept in sustainable practices to prevent or minimize any monetary impact in the future as the result of Covid-10 pandemic (“Bursa Malaysia: Moving.....”, 2021). At the same time, institutional investors such as banks has slowly included ESG as considerations into their investment decisions. They will have higher expectations on companies who implement ESG practices and also forcing the rest companies on such requirements. There is increasing expectations on greater transparency and accountability by the investors and shareholders towards those companies due to high interest in social and environmental areas (“Bursa Malaysia publishes ..... “,

2020). Therefore, companies realize they have to look deeply into ESG information in order to stay competitive, sustainable and achieve future landscape.

Figure stated below is the survey from Shaulova & Biagi (2021) regarding reasons for investors worldwide to consider ESG factors from 2019 to 2020. There are 49% that they believe ESG can improve returns and or reduce risk in the year of 2020 but the vote drop if compare from last year. Next, only 37% votes for clients' requirement in 2020 but it had increase from last year. This means investors has lower confidence on the ESG reporting but the number of requesting showing ESG report was increasing.

Figure 1.1: Reasons to consider ESG factors among investors worldwide from 2019 to 2020.



Note. Adapted from *ESG and impact investing*. (2020). Statista. Retrieved October 10, 2021 from <https://www.statista.com/study/85634/esg-and-impact-investing/>.

Nothing other crisis could able to fight with the global pandemic and economic recession and ESG integration would be considered as support the company from major interferences (“Why ESG.....”, 2020). Corporate could have deeper study and understanding on own corporate resilience in the crisis shocks. Risk management had become the core of ESG practices which any topics related will

have impact on the company's financial performance. At most of the time, ESG symbolize the particular company had quality management which able to perceive during the crisis ("Why ESG.....", 2020). We realized that those corporate with greater leadership will be likely more concern on the safety of workers and working environment. As a result, a management who has capability to respond to challenges of societal and environment, then link to governance practices, they could minimize the risk and generate long-term value to the firm.

Ignatius (2019) explained it is norm that most of the top management put best effort on market demands and the return results in managing company's long term goals, however they aware earlier the essential issues such as cybersecurity and climate change for years which business should pay attention on it. For past few years, majority of investors puts environment, social, governance (ESG) matters on subsequent concerns as earning money by getting significant returns are the first. However things changed that out of expectations. The perception of ESG concept is a non-mainstream in investment community has become outdated which the concept had turned into institutional investors' biggest intention (Ignatius, 2019). Investors are having more confidence to those company who did well in ESG.

In much time, ESG reporting is request initiate by other parties like shareholders which except organization itself. Boyer (2020) mentioned that ESG could help organization to find out invisible or possible issue and method to increase their positive contributions to the environment and society. Ethical investing faces negative impact on organization returns and performance that frequently assumed as ethical investments always come with higher fees and charges (Boyer, 2020).

On the other hand, investor always concern about the safety and visible on positive returns as their major objective in investment, market value added is a financial tool to show the amount of wealth that company created, some researcher agree is the best way to measure the financial performance of an organization, however it still rarely explores by other institutors.

## 1.2 Current Situation of Study

Zumente and Bistrova (2021) commented that a debate between stakeholder theory and shareholder theory had raised to argue whose interests come first, either long-term value for wider society or profit maximization in short-term as the mission so statements of corporations (Zumente & Bistrova, 2021). But the focus has recently shifted to corporate sustainability which also means long-term oriented of value creation. Moreover, there were research between stock markets and investors, more than 80% of the S&P500 companies were more emphasized on physical assets rather than intangible assets (Zumente & Bistrova, 2021). Their value have shifted from machinery, property, equipment towards corporate reputation, customer loyalty and corporate culture which public interests also have the same interests that organizations should give back to society and environment.

ESG concept just slowly recognized by Malaysia in recent years which it is an enhancement concept from Corporate Social Responsibilities (CSR) during the journey of sustainability development for business. Many research shown the result of ESG reporting or ESG investment are significant and positive.

Kell (2021) pointed that ESG term was introduced in 2005 at Western countries with investors' recognition that it is about understanding corporates' objectives, strategies and the quality of management. However, Atan, Razali, Said & Zainun (2016) said that it was only started in Malaysia recent years to apply this concept with the initiation of corporate responsibility practices, also not much companies are on the track which follow the ESG formula due to it is not a necessary reporting.

While the relevance of ESG benefits and risk for overall organization plan and sustainability development have prioritized by huge volume of institutional investors and listed companies (Bahrin et al., 2021), Malaysian government realized

on the importance and need of it. Safri (2021) reported that Raymond Lew, Sun Life Malaysia CEO & president noticed his clients has an increasing concern on sustainability topic due to the rising numbers of news on natural disasters, governance and sustainability issues that are currently happening.

Finally, Malaysian Code on Corporate Governance (MCCG) has been updated on April 2021 since the last version in 2017, Bahrin, Law, & Mohamed (2021) concluded that the new edition focuses on three segments which highlighted companies are required to report sustainability opportunities and hazards to support long-term business strategy and success:

- a. Improvement in board policies and practices;
- b. Strengthening board supervisor and link sustainability aspects together with company's strategy and operation; and
- c. Companies with low levels of compliance are encourage to adopt the best practices of governance

With the guidance and support by the government, not only public listed companies but also private sectors are welcomed to put more resources in research and review organization strategy to minimize risks. On the other hand, according to Safri (2021), positive view by Leslie Yap, Head of Investment at Nomura Asset Management Malaysia towards Malaysian companies, they will attract investments and capital for sure if follow sustainable principles and practices. Khew (2021) shared that Malaysia is slowly heading towards the right direction of sustainable investing and still a positive development for future where able to compete on the global stage.

## **1.3 Problem statements**

### **1.3.1 Inconsistency of ESG data**

There are confusions occurred due to many different standards in the market when ESG topics gained more awareness among the countries and companies in these few years. Ng (2020) pointed out that more than 700 indicators and over 300 different standards and frameworks for disclosure guidelines had found in World Economic Forum's Measuring Stakeholder Capitalism: Towards Common Metrics and Consistent Reporting of Sustainable Value Creation project. The report had participated by more than 200 organizations in worldwide and was released in September 2020. Inside the report pinpoint the common ESG metrics used, to track a companies' contribution towards sustainable strategies goals and align reporting on performance against ESG indicators (Ng, 2020). However, according to Yap (2021), FTSE4Good Bursa Malaysia (FTSE4GBM) is commonly used for ESG ratings among ESG ratings providers for Malaysian-listed companies in Malaysia.

Edmans (2020) mentioned that investors prefer to invest strong ESG performance companies but weak returns as they able to identify earnings in a quarter unable represent the best part of company performance. The author also pointed out it is a big challenge for investor to understand the measurement of ESG because different rating agencies has different indicators. This lead the conclusion of we unable rely on those ratings but just have more understanding to the particular company.

Unstandardized practice is leading significant challenges in making comparisons and might affect the reliability of the data. There is a confusion of which metrics could represent the best as different results shown. Company, investors, shareholders, public and others are hardly defined which ESG framework best captures good performance in certain topic. Kotsantonis & Serafeim (2019) pointed out that different metrics had used to describe the same issue which data inconsistency can lead to different results. People might question, "Does ESG data accurately present a firm's performance?" and this is not giving confidence to relevant parties.

Moreover, the unstandardized framework is one the reason that caused data inconsistency where Fortune (2021) had commented that ESG disclosures is helping organization in telling the efforts they done in environmental, social, and governance issues but with unclear guidance and inconsistent frameworks, the data perform can be hazy. Data shall be reliable, constant and high quality that to avoid confusion towards people. Supporting same point of view by Ismitz Matthew De Alwis, executive director and chief executive officer of Kenanga Investirs Berhad, it will be confusing while many scoring methodologies in interpreting data (Khew, 2021).

### **1.3.2 The gap between expectation and reality**

Visuvaseven (2020) described that from the top 100 organizations in Malaysia, there are 97 companies' annual report had included sustainability information which based on International Survey of Sustainability Reporting 2020. It is a good sign that this active participation with high inclusion rate of sustainability rate in annual reporting, said by Kasturi Nathan, Head of Governance and Sustainability at Malaysia KPMG (Visuvaseven, 2020).

But Shankar & Wong (2021) reported that Datuk Muhamad Umar Swift, chief executive officer (CEO) of Bursa Malaysia mentioned only 75 companies are qualified for the FTSE4Good Bursa Malaysia Index which for the financial year ended Dec 31, 2020 (FY20) during the press conference. According to Law (2021), quality of sustainability reports by public listed companies in Malaysia did not meet the expectation of investors as there is growing number of investors are concerned about ESG risk on value creation and preservation.

Moreover, risks relate to compliance issue was report generally among the top 200 public listed companies in Malaysia, but other risks were rarely to be discussed in report (Law, 2021). Refer to figure below.

Figure 1.2: Ten most common ESG risks discussed by public listed companies in Malaysia in 2020.

Ten most common ESG risks discussed by public listed companies in Malaysia in 2020

1	Corporate governance, regulations and compliance	11.13%
2	Talent development, attraction & retention	9.54%
3	Labour rights and human rights	8.92%
4	Environmental management	8.76%
5	Local community	5.12%
6	Customer satisfaction	4.42%
7	Occupational safety & health	4.09%
8	Climate change & greenhouse gas emissions	4.09%
9	Supply chain management	3.85%
10	Waste management	3.72%

Source: KPMG Management and Risk Consulting

Note. From Law, Y. H. (2021, September 23). *ESG reporting lacks quality*. Macaranga. Retrieved November 17, 2021, from <https://www.macaranga.org/are-we-serious-about-sustainability/>.

Jaeger (2011) commented that from time to time, demand for a greater transparency on environmental, social and governance activities is getting higher which had voiced out by several parties, adding pressure among companies while exercising ESG practices This is not an easy task for a company to fulfil so many requirements in order to sustain. A study by sustainable investment research firm and consulting firm had found that there is a broad gap between by perceptions from several parties like investors, customers, public and shareholders for the effort and what company actually pay for in ESG programs in reality (Jaeger, 2011). On the other hand, more than half of the survey, those companies have better performance in ESG practices but public has rate them lower average score.

From the above statement, Jaeger (2011) highlighted that if the gap persists, those organizations with high perception scores may facing reputational risks and

pressure to minimize the distance between reality and perception by pressing down expectations or bringing up to the perception. This is because of weak assumptions of performance will lead to destabilization of ESG.

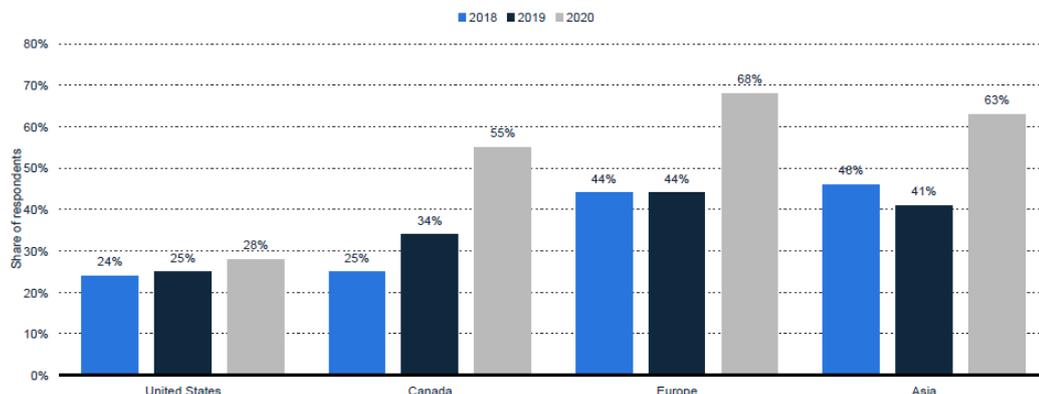
An analyst had shared his experience in the period over the past 6 to 12 months that it is a pain point for investors (include shareholders, company management and investment community) feeling fear, uncertainty and doubt regarding the gap between ESG perception and the reality which only 10% same score in their findings (“Video.....”, 2021). The author had took 250 companies for analyse, partnering with rating agencies which using the real ESG measurements and compare with ESG perception measurement. Of course, the result is there is huge gap between the two variables.

From the data shown below, Asian has more confidence on ESG portfolios’ performance in 2020 with a big jump from 2019. With a better tranpenrenncy of reporting, not only investors but also shareholders, publics, customers and other stakeholders believes that the corporation is working hard to perform better in their strength and reduce weaknesses in meeting the requirements set and also people’s expectation.

Figure 1.3: Expectation that ESG portfolios will outperform non-ESG portfolio worldwide, by region 2018-2020.

[Expectation that ESG portfolios will outperform non-ESG portfolios worldwide, by region 2018-2020](#)

Expectation that ESG portfolios will outperform non-ESG portfolios 2018-2020



Note. Adapted from *Esg and impact investing*. (2020). Statista. Retrieved October 10, 2021 from <https://www.statista.com/study/85634/esg-and-impact-investing/>.

## **1.4 Research Objectives**

- a. To determine the correlation between ESG factors and MVA towards public listed companies
- b. To determine that ESG score has related relationship on MVA
- c. To explore ESG concept impact on shareholder's value

## **1.5 Research questions**

There are some research questions to discover on the variables as follow:

- a. Does Environment factor (E) impact on MVA and public listed companies?
- b. Does Social factor (S) impact on MVA and public listed companies
- c. Does Government factor (G) affect shareholders' value impact on MVA and public listed companies?

## **1.6 Significant of the study**

ESG is still a very new concept for Malaysian companies which need more discussion from different point of view to have broader understanding in helping organizations enhance their governance level. Also, provide another point of view by using MVA measurement tool as most of the researcher explore Economic Value added (EVA).

The purpose in this study is to pinpoint the greatest problem facing by companies in Malaysia, investors, public, shareholders and other parties, providing useful information and opinion that able to help for improvement in operating business.

At the same time, hopefully it can help the growing and pushing further not only public sectors but also private companies for their business in meeting better requirements of government's setting, greater value for investment, good invest direction for investment community and so on to reach win-win situation between several parties.

Nevertheless, this study can disclose the current and real situation of corporate governance in that happening now in Malaysia where as a references for investor to understand the limitation and opportunities of ESG reporting.

## **1.7 Conclusion**

In a nutshell, background study, current situation of ESG in Malaysia, research problem & questions, objectives & importance of study are stated above. At next chapter, review on past researchers studies and discussion on potential variables from conceptual framework for this research project.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter will discuss existing literatures to support the conceptual framework of this study. A variety of theoretical and empirical frameworks have been reviewed with the aim to identify the significant variables that influence the ESG practice and the market value added of Malaysian public listed companies. This chapter will explore empirically the ESG factors and its relation to the market value added of Malaysian public listed companies. The first part of this chapter presents the relevant theoretical frameworks, followed by the empirical review of the current ESG development in Malaysia. Next, the significant variables that adopted from the literatures and used in the conceptual framework are discussed extensively in this chapter.

#### **2.1 Theoretical review**

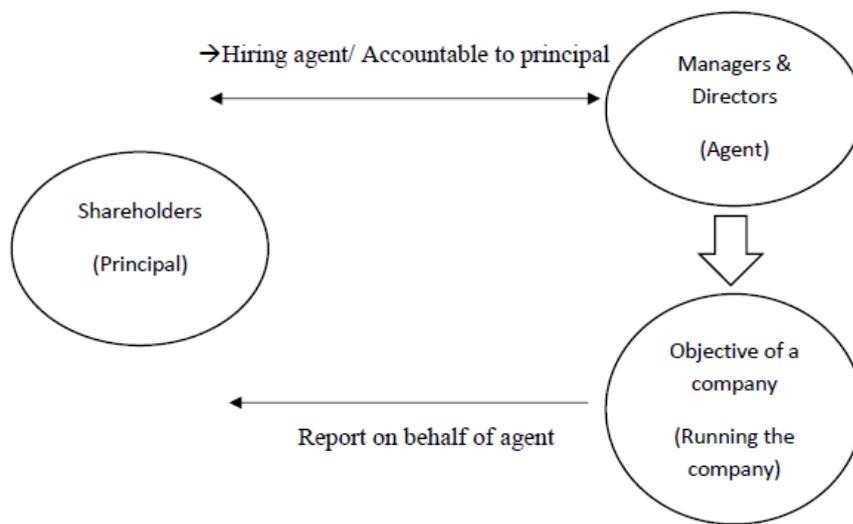
Kim (2004) expressed that MVA represent the ability of management that help firm to produce wealth from the capital invested by investors and also viewed as market value evaluated in security market of firm's internal operating efficiency. Thus, the theory that link MVA and shareholders is the agency theory where the board is pointed as agent to govern the management to ensure they are acting the best interest to investors and shareholders are a part of the investors.

Besides that, Ramly and Rashid (2010) suggested that to reduce agency risk, corporate governance is a mechanism to monitor of managements' activities, enhance the quality of firms' information flows and restrict managers' dishonest behavior. A good corporate governance is main to ensure and forms right environment in delivering long-term corporate success and

economic growth, maintaining trust and confidence among corporate and investors and so on. On the other hand, ESG reporting is a growing concern of various investors about measurement of ethical impact and sustainability of investment in a company. Therefore, ESG is treated as a part of corporate governance and stakeholder theory is discussed at below.

### 2.1.1 Agency theory

Figure 2.1: The Agency Model



Note: Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial Behavior, agency costs, and ownership structure. *Economic Analysis of the Law*, 3(4), 305–360. <https://doi.org/10.1002/9780470752135.ch17>

Wong (2018) mentioned that company was a connection between principals and agent to assign tasks or implement certain functions. Chong (2019) explained that agency theory as fundamental theory in corporate governance, association relationship between agents (management in organization) and principals (investor or shareholder). Two important issues that explained by the agency idea on the agency relationship were different goals between principal and agent and unfit mutual interest due to different risk preferences (Wong, 2018).

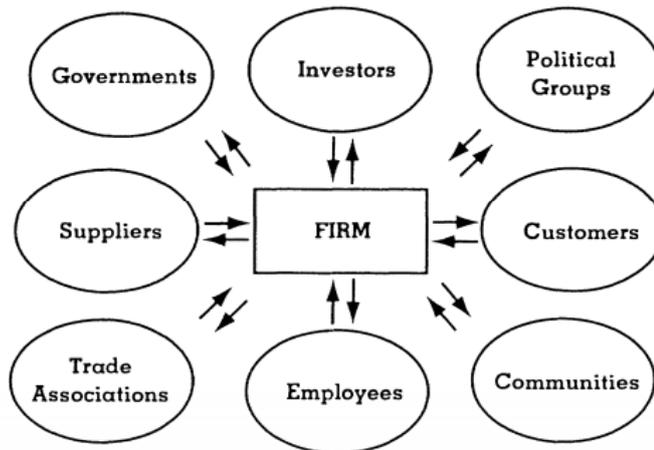
Perumal (2019) found that it helps to reduce agency problems during business operation with the objective to maximize wealth in the combination of agent and principal. It was acting the best interest of shareholders that developed under finance and economic aspects. Agency theory can assist problem solving while conflicts occurred between principal and agent, thus it could uphold agent's loyalty to ensure fair compensation system (Vargas-Hernández & Teodoro Cruz, 2018). Agency problems can be reduced through the best practices of corporate governance by generating biggest possible returns in utilizing available resources and both parties are beneficial (Perumal, 2019). To protect shareholders and management from various conflict of interests, monitoring or control mechanisms are needed where manager of the firm is appointed as executive directors to the board and control management. The board is formed by the shareholders' decision in order to act in their best interest and ensure their personal interests in the organization (Chong, 2019). Monitoring costs included reward, measure managers' behaviour and cost of control under agency theory which monitoring actions on managers through internal control mechanism, manager is paid by its performance (Wong, 2019). Next, institutional shareholders represent an external force by the management to ensure shareholders wealth maximisation especially those who hold large portion of shares or higher power are more likely to avoid any managerial activities that are harm to the company value. If the manager has failed to achieve required targets, it may facing employment crisis who failed to meet desirable expectations.

Moreover, agency theory is playing a role of assurance to protect investors or shareholders get returns from the investment (Perumal, 2019). Thus, management of the organization should take the responsibilities to avoid losses on long-term goal and risky investment.

### **2.1.2 Stakeholder theory**

Figure 2.2 Stakeholder theory

### Contrasting Models of the Corporation: The Stakeholder Model



Note: Freeman, R.E. (1984) *Strategic Management: A Stakeholder Approach*. Pitman, Boston.

According to Junius, Adisurjo, Rijanto and Adelina (2020), the growth of ESG and sustainability report was credited to stakeholder theory by R. Edward Freeman in 1984. Corporate shall responsible to other stakeholders as well and do not only prioritize shareholders' interest. Velte's study (2017) (as cited in Junius et al., 2020) mentioned that are investors, employees, communities, customers, suppliers, government, trade associations, competitors and political parties. Gold and Md. Taib (2020) expressed those stakeholders who are a group of members or persons with legal intentions in corporate activities which their actions are able to bring impact on firms' decisions and link to different outcomes. Manita, Bruna, Dang and Houanti (2018) said that stakeholder no matter is in the form of individual or a group, they will influence or impact by organization's goals. Ho, Ng, Mohd Sidik, Ng, and Suppiah (2020) pointed out that all stakeholders should involve in any decision making relate to organization and contain equal rights to receive information especially relate to sustainability development disclosure. Therefore, shareholders intentions are not only the target that need to focus by the firm but also responsible towards customers, employees, suppliers, social communities and so on. Thus, not only one of them interest need to focus but all of them weighted same. However, in this situation, they have conflict interest and company shall be clear who shall be priorities in different situation.

Stakeholder theory is significant to balance the interests of various stakeholder by creating ethic & sustainable for company. From that, it able to explain shareholders wealth

maximization in corporate governance (Wong, 2018). Parmar, Freeman, Harrison, Wicks, Purnell, and Colle (2010), explained that stakeholder theory can have a better opportunity to deal with problems of value creation and trade, ethics of capitalism and managerial mindset by adopting analysis relationships between a business and individual or groups that affect each other. Stakeholder is partly relying but not fully depends on the economic value of the company in order to fulfil their personal demand (Wong, 2018). Stakeholder has the control power over corporate' resources which corporates are forced to achieve stakeholders' requirements as they are powerful enough to affect organizations objectives and its survival (Ho et al., 2020). Zhang, Loh and Wu (2020) emphasized that stakeholder theory highlighted the role of stakeholders in the value creation process and stakeholders could be a source of support towards corporate success if firm able to manage the relationship effectively.

The more complete and deeper of stakeholder analysis, the more contributions on assisting corporate planning process and enhancing sustainability reporting practice (Gold & Md. Taib, 2020). At the same time, the author believed that management that in charge of stakeholder management has a positive relation with conventional performance such as company's growth, cost-effectiveness and stability. As a consequence, a company's reputation or image and even company's performance will be affected if they fail to protect any stakeholders' interest. A long-term performance can enhance stakeholders' contributions towards company and treat corporations as socially responsible institutions when firms are able to balancing the interest among them.

Tampakoudis, Noulas, Kiosses and Drogalas (2021) commented that the outbreak Covid 19 created unexpected challenges and opportunities among different sector which changed the business landscape in 2021 even caused economic uncertainty and break mutual confidence between firms and stakeholders. The research believes that to increase organization credibility, develop trust and cooperation's, facilitating the connections between stakeholders and company by establishing and enhancing social capital through CSR investments. Last, public listed companies with large market capitalisation and profitable are more willing to invest in sustainable development goals of implementation and continue disclosing sustainability information to its stakeholders (Ho et al., 2020).

## **2.2 Empirical review**

### **2.2.1 ESG concept**

Freeman (1984) (as cited in Zahid, Rehman & Khan, 2020) defined ESG as companies' practices that mainly to reimburse some of the damages caused to environmental and social during business operation. At the same time, principal of environmental, social and governance (ESG) are a guideline for investor to filter, evaluate and analyse a company's operations in current and past status. It has slowly become a common way for investors to screen which project or company to invest. From article, a company with strong ESG performance is having greater ability in managing the business for long-term goals with greater knowledge of strategic for sustainable development. Băndoi, Bocean, Baldo, Mandache, Mănescu and Sitnikov (2021) defined that sustainability as a process that merge environmental and social aspects into organization' operation by considering stakeholders' interests while implementing company strategy. Company is encouraged to set and achieve company goals during implement operational activities in order to full integrate sustainability (Băndoi et al., 2021)

According to Ting, Azizan, Bhaskaran and Sukumaran (2019), investor can evaluate a firm's behavior and analyses its future financial performance through the ESG reports as it have a positive impact on the firm's value. ESG rating analysis is based on real data from public that reported by particular companies and governmental organizations which consider high accuracy. Tarmuji, Maelah and Tarmuji (2016) said that ESG measurements is targeting on exploring additional perspectives of corporate performance which able to capture wider scope of non-financial data on environmental, social performance and corporate governance in order to evaluate an organization's management competencies. A normal corporate financial statement still not showing comprehensive information for the management and investors about sustainable development, company reputation, workplace safety and culture, etc. ESG provides valuable information which mainly for management purposes as a review from different viewpoints then allows company to make appropriate adjustments in their business planning (Tarmuji et al., 2016). From that, company could have more precise information that give a clearly picture for management to come out better solutions. Nevertheless, Zumente and Bistрова (2021) suggested that ESG data are demanding due to it could help investors in

investment performance where not only the ethical consideration but also financial performance.

Amel-Zadeh and Serafeim, (2017) stated that ESG information impact on economic aspects especially associated with stock price movement, cost of capital, lower capital control and analyst forecast errors. Nevertheless, it also helps to predict organization's' future financial performance. The researcher had done a survey for understanding how and why investors use ESG information around the world and a total 15% of responds were from Asia countries' companies (Amel-Zadeh & Serafeim, 2017). The majority reason to choose ESG information when making investment decisions was ESG information is material to invest performance. Next, limitations to use ESG information for investment decisions were include lack of comparability across companies, lack of standards in reporting ESG information and cost of collecting and analysing ESG information.

Abdul Halim (2014) explained that ESG can brings advantages to investors in supporting decision making for long-term investments performance and it had become key indicators of management competence, risk management and non-financial performance. ESG could help organization to find out invisible or possible issue and method to increase their positive contributions to the environment and society. According to Ting et al. (2019), at first, they are able to analysis company's strategic in managing sustainability issues through ESG score. Next, ESG has close relationship with SRI which is a well-recognised investment and provide better information for investors. Third, ESG is valuable for investors because it is an extra-financial material information of companies in CSR, corporate governance, environmental and sustainability. The great benefits of ESG reporting include:

- Transparency and reporting on operations activities could be presented in a strong ESG report that able to strengthen stakeholder engagement in improving corporate image and creating good impression on stakeholders especially investors, employees and customers.
- Weaknesses can be easily identified by corporation supervision and measure current performance.

Besides that, organization use the ESG as an advantage in their strategic management to handle sustainability issues. It is actually connected and derived from Social Corporate Invest (SRI) and Corporate Social Responsible (CSR). Kweh, Alrazi, Chan and Wan Abdullah (2017), commented that companies are easily face several issues of losing loyalty customer, sales drop and decreasing reputation if without social responsible investment (SRI) especially underlying fast-changing business environment. It also is valuable asset for Investor to use the information because ESG is known as extra financial material information of companies in CSR. Thus, corporate executives and investors are increasingly adopted the concept due to it may directly impact corporate's value, performance and reputation (Abdul Halim, 2014). In summary, stakeholders' satisfaction had fulfilled by strengthen operation through ESG practices (Zahid et al., 2020).

### **2.2.2 Corporate governance in Malaysia**

Structure under co-management with accounting mechanism, transparent mechanism through supervision by organizational network called corporate governance (Vargas-Hernández & Teodoro Cruz, 2018). It also can be defined as the way of business are controlled, directed and supervised by legal framework in managing a firm (Perumal, 2019). Page (2005) expressed the term of corporate governance was a power that controls the structure of an organization, the ways of delegation and practices. Zabri, Ahmad and Khaw (2016) described that the pattern and procedure in directing and managing business and affairs of the firm towards enhancing business prosperity and corporate accountability with the final goals. Mcphail (2014) had declared that in order to inhibit management opportunistic behaviour, the quality of organization's corporate governance represents an important play role. CG is an important structure even mechanism to help public to increase the faith and confidence to those corporate leaders. Through public scrutiny, the corporate need to disclose necessary information to society and legislative practices were formed to safeguard societies from known threats and avoid problems repeating. The purpose of corporate governance is mainly to ensure fairness and accountability among Malaysian companies in order to sustain and perform (Perumal, 2019).

A strong corporate governance has the ability to provide positive value to all parties through robust governance mechanism like healthy ownership structure, transparent information discloses, board's quality and powerful institutional shareholders which could enhance corporation's performance (Ramly and Rashid, 2010). Such strong CG mechanism will minor risk of a firm, after that to lower cost of capital which indirectly raise an organization's market value (Ramly and Rashid, 2010).

Chong, Ong and Tan (2018) said that companies and regulators Malaysia highlighted good corporate governance practices are important in protecting the interest of stakeholders when the period back in the year 2000 after the Asian financial crisis, and then Malaysian Code of Corporate Governance (MCCG) was put in place. An initial step for ESG started in Malaysia was in 2006 when all companies were required by Malaysia government to disclose CSR in the annual reports that published each end of the year (Zahid et al., 2020). But it was not mandatory to disclose such information. Bursa Malaysia had introduced CSR framework with four dimensions: community, marketplace, workplace and environment with the purpose of promoting the sustainable value and concern for the society (Zahid et al., 2020).

Forming a comprehensive corporate governance environment structure could enhance corporates' value which this is what corporate governance could provide a structure in setting and implementing corporates' objectives (Perumal, 2019). Furthermore, outstanding corporate governance is able to reduce investment risk and decrease on cost of capital due to investors are more willing to put money in the company for its transparency and accountability (Perumal, 2019). This is what firm are paying attention on and trying all the ways to boost and enhance their company whichever can move further and stronger.

The roles and responsibilities of the board of directors, internal auditors and audit committees had enhanced in 2007 MCCG; effectiveness of board structure and composition had strengthened in MCCG 2012 which to foster market discipline, public-listed companies are required to disclose their compliance in their annual report to conduct good governance (Chong et al., 2018). When come in to MCCG 2021, corporates are guided in improving their governance compliance, processes, strategies and priorities. Powerful and sustainable

corporate governance culture are wished to cultivate through these amendments in adapt principles and guidelines.

Table 2.1: Comparison between MCCG 2012, MCCG 2017 and MCCG 2021

Principle	MCCG 2012	MCCG 2017	MCCG 2021
CEO Duality	Recommendation 3.4 indicates Chairman must be a nonexecutive member of the board and both the CEO and chairman must be held by two different persons		Chairman of the board cannot be any member of the Audit Committee, Nomination Committee or Remuneration Committee
Independent Directors	Chairman of board being non independent and the composition of board should be more independent directors	As for large companies, the board should comprise of majority independent directors. At least half of the board should comprise of independent directors	Maximum 12-year tenure limit for independent directors without further extension  The board should engage independent experts to conduct board evaluations at least every three years
Women Directors	Recommends companies to establish a policy on boardroom diversity.	Recommended for large companies to have the board comprises of at least 30% of women directors.	The board must comprise 30% and above of women directors (applies to all listed companies)
Corporate			

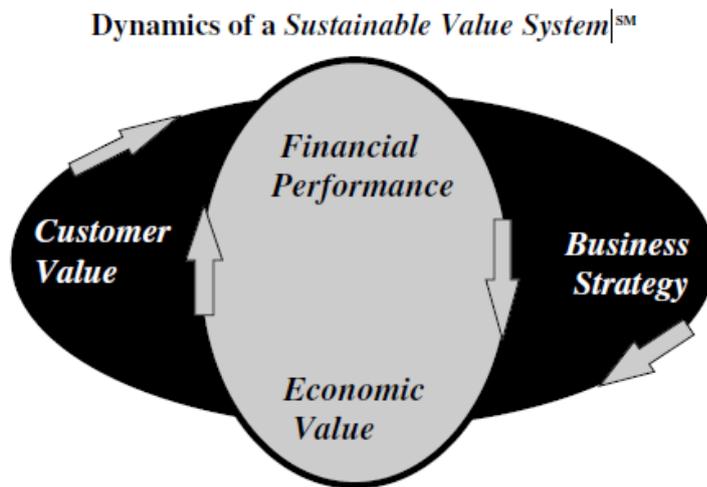
Social Responsibility			
Audit Committee	Reviewing quarterly yearend financial statements, working closely with internal audit and external auditors		Audit Committee should consider the information showing in the Annual Transparency Report of the audit firm by external audit firm in evaluating the suitability, objectivity and independence of the firm.
Board Size		Recommended for at least 1/3 of the board should comprise of the independent director.	
Board responsible			Board and senior management are responsible for the governance of sustainability in the company  Performance evaluations of the board and senior management include reviews of their performance in addressing the company's material sustainability risks and opportunities

Engagement with stakeholders			<p>Meaningful engagement between the board, senior management and shareholders, including matters relating to company's financial and non-financial performance</p> <p>Shareholders should be given the opportunity to ask questions during general meetings and all questions should receive meaningful responses</p>

Note: Adopt from Perumal, K. M. A. P. (2019). *Relationship between Corporate Governance Mechanisms and its Influences on Company Performance*. [Master dissertation, University Tunku Abdul Rahman]. Institutional repository. <http://eprints.utar.edu.my/libezp2.utar.edu.my/id/eprint/3425> and *Malaysian Code of Governance (2021)*. Securities Commission Malaysia.

### 2.2.3 Shareholders' Value

Figure 2.3: Dynamics of a sustainable value system



Note: Johnson, R. E. (2001). *Shareholder value: A business experience*. Elsevier Science.

Johnson (2001) discussed that one of the forces happened in business was customer value. It is a main concern of companies to provide “value” to their customers in terms of products or services in order to fulfil the needs which they willing to pay. If not, the business will close down eventually. Hicks (2020) pointed out that shareholders’ value is important to investors due to the money they put in is positive relationship with the value of investment, and it hope it will grow over time. Generating a financial return on invested capital and creating value to customers are what shareholder value brought out (Johnson, 2001). Value creation is depending on shareholders’ expectations which form a future anticipation and the 2 key elements to attract and persuade investors to put their money into a project or a firm are because of potential growing or development of the particular company and great returns (Manita et al., 2018). In addition, contribution to a company’s value or stock price is what firms concerned and was determined by the financial markets (Johnson, 2001). The situation when an organization able to create profit on investment, it is defined as shareholder value creation (Hicks, 2020).

Moreover, shareholders’ interests are placed higher than other stakeholders’ by a corporate governance system, therefore shareholders hold absolute power (Page, 2005). The corporate ownership is belonging to whom hold the outstanding shares of stock and they have the rights to choose anyone to sit in the board. From that, it is indirectly making decision on company

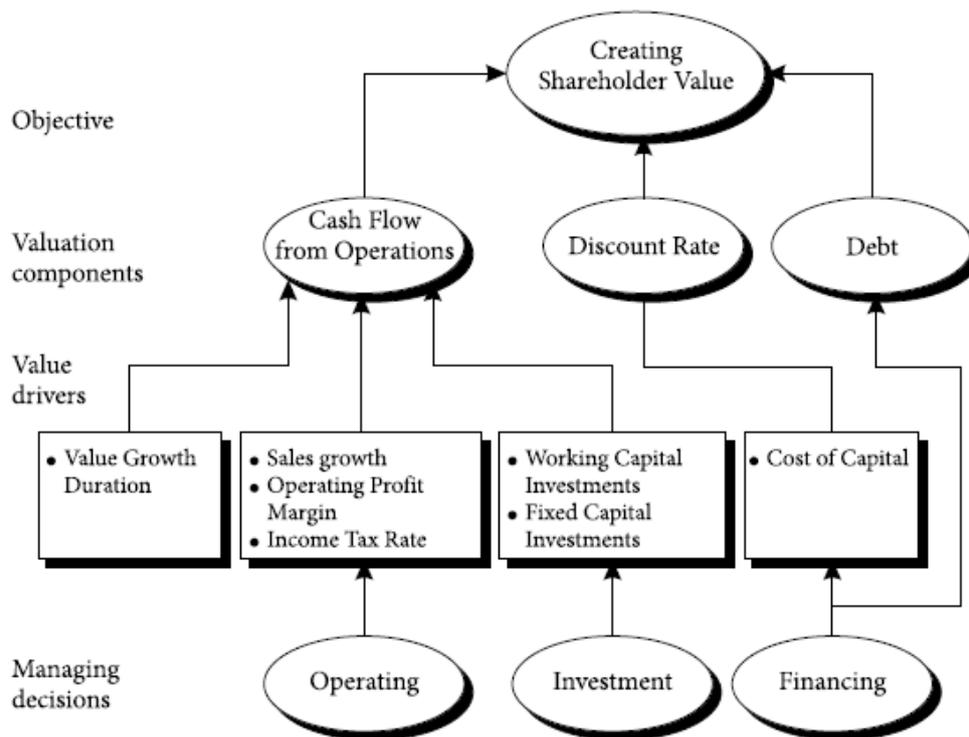
management like corporate strategies. Therefore, Thomsen (2020) concluded that it is easy to see shareholders can utilize their power and interest to seek better match with their preferences replace the board and change company's objectives, so controlling shareholders must agree with company's objectives including the definition of value creation.

There was not always contradiction between stakeholder interest consideration and profit maximization as Donaldson and Preston (1995) suggested that organization could had performed better in "conventional performance terms" such as profitability while considering all stakeholders (Zumente & Bistrova, 2021). The researcher believed that the purpose to satisfy stakeholders' wants through ethical principles and CSR activities were the tools in achieving greater financial performance especially caring about the longer-term value created to shareholders.

Venugopal, Reddy & Sharma (2019) said that organization's key objective was creating value and maximizing wealth to the shareholders in the olden days. Investors are always concern on the safety and visible with positive returns as their major objective in investment. Therefore, most of the organizations prefer and insist to garb and attract long-term investments, even giving first priority on creating value to shareholders (Venugopal et al, 2019). Akgun, Oztop and Samiloglu (2018) agreed that maximizing shareholder has become latest corporate paradigm because organization and owners viewed value and value creation for shareholders as their goals.

One of the main objectives to measure shareholders' value is measure the value impact of the past and present financial performance along with strategies and future investment planning (Johnson, 2001). Petravičius and Tamošiūnien (2008) found that value was created to shareholders when profit exceeds which means there is balance when the residual measure of (adjusted) profit minus the cost of capital. Management decisions like operating decisions, financing decisions and investment decisions were easily affected shareholders' value from value drivers (refer to figure 2.4) that connect to the valuation components through the shareholder value network (Petravičius & Tamošiūnien, 2008). The researcher also agreed that financial and investment decisions that made by financial managers could helped company

increase profits (Venugopal et al, 2019). Meanwhile, there was study declared that companies did not create value directly but influenced shareholder value through drivers and corporate governance was one of the drivers play a key role in responding the agency problems by setting restriction on appropriate rules and regulations for the board of directors in order to have better transparency in the decision-making system (Venugopal et al, 2019).



Note: Rappaport, A. 1986. *Creating shareholder value: the new standard for business performance*. Free Press: N. Y.

Maximizing shareholder's value is not a new idea anymore and this concept is equivalent to companies maximize profits after deduction of opportunities costs which also same as maximizing economic profits net of capital costs (Thomsen, 2020). Moreover, Siburian and Yohanes (2019) agreed that lots of organization management treat shareholder value maximization as their priority was because of the concept closely related to corporate value enlargement which provide benefits to customers, staffs and social environment. In new centuries, that a company must obtain investment opportunity with positive returns in order to generate value for its shareholder which the return shall exceed the cost of equity (Manita et al., 2018). Investment opportunities are treated as a growth options. Hillman and Keim (2001)

suggested that companies should develop any sources that are compatible such as intangible and valuable assets to create shareholders' wealth in order to build and consolidate relationships with primary stakeholders like communities, customers, employees and so on.

However, shareholder value maximization is depending on the share returns but from invest prospective, not only high returns shall be focus on but maybe others like company culture, positive corporate image, strong leadership or management and so on. Berzakova, Bartosova and Kicova (2015) had expressed that many of the organizations were focused on maximizing profits but this didn't satisfy the requirements of shareholders because they more emphasized on the value they would like to receive from the company. Tampakoudis, Noulas, Kiosses and Drogalas (2021) agreed that ESG based- investment strategy doesn't show better result if compare with passive investment and investors experience lower earnings than passive targets in certain industries that depends on ESG criteria. Investor rely on ESG data because it relevance to the investment result (Zumente and Bistrova, 2021). Not only that, company financial performance, an organization's ethical concerns, client demand also part of the consideration.

Apart from that, it is true that reality break the expectation as figures speak louder than words. Expectation will be adjusted by the figures announced in the financial report where decided the value (Manita et al., 2018). The researcher agreed that in previous academic literature, there is interest conflict between stakeholders (Zumente & Bistrova, 2021). Therefore, by satisfying stakeholder needs, company need to increase their financial performance and then achieve shareholders long term value. Although a firm we saw is slow growing, but if it has high margin will lead to a better sustainable grow and become a high grow firm then (Manita et al., 2018).

#### **2.2.4 Relationship between corporate governance, ESG, value creation and organization performance as investment decision**

Al-Matari, Al-Swidi and Fadzil (2014) had declared that the importance of performance measure is essentially for effective management to understand which level the use of organizational resources to improve in enhancing business performance. How success of an

organization shall depend on the performance over a certain period of time. Definitely, a robust corporate governance system is significantly impacted and enhanced corporate's performance by attracting more investments to get more funds and reinforcing the company's pillars (Al-Matari, Al-Swidi & Fadzil, 2014). Thus, CG plays an important role in the growth of the company's performance where to avoid financial crisis and assisting sustainable development.

A broad definition of corporate governance had brought out that the purpose of corporate governance among public listed companies is creating value, yet the shareholders-owned corporations stand for sharing the value that created as it consists of activities that related to sharing rights and responsibilities, exercising power and organizing multiple functions of the company (Page, 2005). When the purpose of corporate governance is to make sure value creation, the terms of value creation can be explained as a corporate objective function which has powerful implications towards the structure of corporate governance (Thomsen, 2020). In addition, Tan and Tan (2004) pointed that corporate governance could affect several internal operations especially on value creations activities which are shareholder activism, transparency issues, financial expectation and strategic direction.

A further discussion of ESG performance relate to long-term shareholder value creation and investment decision while Mihajlovski and Gukovas (2020) emphasized that companies with strong sustainability (ESG) scores were showing more excellent operational performance and facing lower risk which these sustainability practices created greater worth for both investors and firm itself. Aich, Thakur, Nanda, Tripathy and Kim (2021) had analysed few factors that influence ESG towards investment which included greenhouse emission, corporate policies, impact on environment, waste management and pollution control, impact on investing, deforestation and biodiversity, human rights, good governance, revenue conservation and impact on investment. Cheung, Connelly, Ping and Limpaphayom (2011) had observed the quality of corporate governance is positively correlated with subsequent market valuation from their analysis. Besides that, a conclusion had made that there is opposing relationship between ESG performance and company risk while testing ESG correlation with the credit risk metrics (Zumente & Bistrova, 2021). Higher ESG performance will affect lower credit risk for companies.

A significant and positive result which involve the majority academic paper and 2100 studies shown in investing ESG has relationship between financial performances (Zumente & Bistrova, 2021). The cost of capital is extremely essential for an organization to evaluate future investment opportunities and reconsider existing investments (Ramly and Rashid, 2010). Moreover, value created for shareholders is driven by cost of capital, operating profit margin, sales growth rate, working and fixed capital investment, income tax and competitive advantage period stressed the financial facets of the shareholder value concept (Zumente & Bistrova, 2021). When the firm is able to enjoy low-priced source of capital, value is created (Ramly and Rashid, 2010). However, Wu (2021) argued that there is no relationship between financial performance and ESG due to missing real cost or benefit for investors to invest in socially responsible investment. The researcher also pointed out that stronger stock market performance may has larger firm investment in other aspects but CSR activities don't impact financial performance.

Lalitha, Sandhyavani and Sudha (2020) highlighted those useful financial evaluations are able to help firms to create comparative analysis that allow them to form a competitive environment from that, it surely encourages firms to perform better and achieve higher level of performance. Investor can have better understanding on a business's financial status of a business before they invest through financial statement of a firm which it always gives guidance for them during making financial and investment decisions. Due to the broad definition of financial performance that includes productivity, economic conditions of business and return on investment as factors that impacted investors in making investment decisions, the author strongly recommended to use value-added measures like EVA and MVA to assess organization performance (Lalitha, Sandhyavani & Sudha, 2020).

In summary, improving the quality of corporate governance practices is positively related to subsequent market valuation through increase from inner organization performance to external performance like reputation. ESG concept is now the better practices to consolidate the base of CG. From that, value is created for both organization and shareholders which investors has more confidence and understanding even felt value to invest.

## **2.3 Independent variables**

### **2.3.1 Environment**

“E” in ESG concept stands for environment which refers to pollutions, climate change, insufficiency water resource, Waste management and Energy efficiency (Ting et al., 2019). Environmental criteria are showing how well a company can handle uncontrollable natural resource and indicate its operations environmental impact.

Tarmuji et al. (2016) stated that environment pollution issue had grab internal and external stakeholders’ attention especially show concerns on private organization’s environmental performance. Employees may concern about healthy working atmosphere where away from air and water pollution; external stakeholders like communities worried about water pollutions nearby living area. Therefore, it is essential that corporate must apply best management practices to reduce air emissions (greenhouse, carbon dioxide and so on), waste, water scarcity and others. We can’t deny that stronger environmental performance can improve the value of the organization by enhancing reputation and lowering hidden risk which might cause negative impact. This can help in attracting new potential investors or stakeholders as a good environmental practice on operational activities can save unwanted costs.

Mihajlovski and Gukovas (2020) commented a finding related to the impact of environmental aspects on share price had certified with positive relationship through a study between the periods from 1980 to 2009. It shown a result of stock price increase after the organization held eco-friendly event, otherwise the price dropped if an adverse event happened.

### **2.3.2 Social**

Social represent “S” in ESG which include elements of human rights, labor standards, community relation, and health & safety (Ting et al., 2019). Social criteria define a company’s management power on relationships and creates value for stakeholders such as employee

engagement, human rights, labor standards, community relations, data protection and privacy. Tarmuji et al. (2016), mentioned that corporate should be responsible to social because of environmental activities without proper control, it will cause big impact on earth, people and even margin of the organization. The author also pointed out Corporate Social Practices (CSP) is split into 3 dimensions- (1) Corporate social responsibilities (legal and ethical), (2) corporate social responsiveness (react, defence, accommodate) and (3) social issues (customers, environment, product safety, personal safety). The result shown under these principals depends on the company admit which level of social responsibility and adoption of a responsiveness.

### **2.3.3 Governance**

“G” goes for a set of rules, policies and practices that deals with company governance (Ting et al., 2019). Governance criteria refers to administrate theory, leadership, internal controls, shareholder rights, procedures and standards. Good corporate governance (CG) system is a key component in enhancing business’s performance in the best interests of among shareholders, investors, firm and other stakeholders (Tarmuji et al., 2016). CG is a method and structure such as board composition, whistleblower schemes, executive compensation, bribery and corruption which used to manage the organization towards a better management for sustainable development and set ultimate goals along with long-term shareholders’ value and also interests of other stakeholders. Also, it uses to assist board in controlling their business operations. Tarmuji et al. (2016) suggested that firm need to follow CG frameworks and principles to ensure sustainability and growth as the best practice can attract and retain executives and board members.

## **2.4 Dependent variable**

### **2.4.2 Market Value Added (MVA)**

Kaczmarek (2018) indicated that MVA is a method to determine a firm’s value and it is dealt under topic of Economic Value Added (EVA). According to Banerjee (2000), MVA measured external corporate performance and it reflects the value the capital market is putting value on

the invested capital. It also can be categorised as the external or "market" measurement on a firm's performance of its success (Kaczmarek, 2018). Moreover, market value added is used to evaluate shareholder value creation in capturing the ability and efficiency of the organization in managing and allocating rare resources in order to maximize shareholders' value (Hillman & Keim, 2001). In the other words, it means MVA can measured two valuations which are the performance in managing capital and the degree of creating wealth to shareholders. Bognárová (2019) clarified that due to market value added was unlike economic value added that measured the true economic profit produced by a firm, it is still a wealth metric to measure the level of value that the firm has accumulated for a certain period. In addition, Pandya (2016) suggested that MVA can be used as organizational performance measurement tool in a specific period for listed companies.

Market value added is considered as hybrid indicator to measure corporate financial performance (CFP) (Wu, 2021) which Carini, Comincioli, Poddi and Vergalli (2017) also agreed that MVA is a mixed measure due to it is the combination of both market and account value. Other study also had same opinion on traditional accounting measures like Earnings Per Share (ERP), Return on Investment (ROI) and operating profit (OP) have been replaced by Economic profit (EP), Cash Flow Return on Investment (CFROI), Market Value Added (MVA), Economic Value Added (EVA) (Petračiūnas & Tamošiūnienė, 2008). MVA is calculated by the differences between the firms' market value and invested capital, hence when market value added is larger than zero represents the cost of capital had covered the return on capital invested (Berzakova, Bartosova & Kicova, 2015). Similar, Erdogan, Berk, and Katircioglu (2000) described that MVA was the variance between book value of company total assets and the total market value of the company which the value more than zero stands for the value created for shareholders' investment. In the other hand, when MVA is lower than zero, it implies that the organization may reduce investments which didn't maximize the value of capital that contributed by shareholders. Other studies also described the same as market value added could make the most of shareholder wealth by maximizing the differences between the sum of equity shareholders' capital and the market value of firm's stock (Petračiūnas & Tamošiūnienė, 2008). Those required data could be found in companies' financial statements or annual reports but it is not easy to find market value of debt, so the value of debt or the debt's book value as an estimate of its market value will be chosen to replace it (Petračiūnas & Tamošiūnienė, 2008).

To be specific, MVA will be considered as the final measurement of value 'created' or 'destroyed' by a business and it will depend on the economic profit (EP) as the position of a value 'creator' or 'destroyer' (Johnson, 2001). Economic profit is basically calculating the excess or balance return that pay for shareholders after deducting cost of capital (Pandya, 2016). In other terms, the meaning of EP stands for the differences between Cost of Equity and Return on Equity (ROE) times the book value of equity (Pandya, 2016). Generating wealth can be linked with generating economic value as there is a direct connection between these two concepts (Page, 2005).

EVA described itself as capturing the true economic profits of a business (Akgun, Samiloglu and Oztop, 2018) and it was commonly used to measure not only company performance but as tools of evaluating the company, financial analysis tools and tools of management and employee's incentives (Berzakova, Bartosova & Kicova, 2015). Economic value added represents the remaining revenue after deducting all the cost of capital including equity capital (Petraavičius & Tamošiūnienė, 2008). Actually, MVA represents the present value of EVA which EVA is more focus on details of the firm. Oppositely, MVA is more advanced and defined as senior level management which it has better descriptive power in valuation of the corporate as a whole (Berzakova, Bartosova & Kicova, 2015).

Johan (2019) had reported that Economic Value Added (EVA) and MVA has relationship with reporting earnings but MVA has stronger explaining reported earnings than EVA. Furthermore, cash flow has greater relation with MVA from operations and only little correlation with Earnings Per Share (EPS) (Johan, 2019). Only few companies used MVA to measure financial performance as an alternative, most of them rather use EVA, due to EVA had a better relationship with stock return over a longer period of the study (Johan, 2019).

The reason that MVA is considered as an important variable of research is because of the standard accounting measures of performance like return on assets (ROA) does lack of evaluate the potential of future profit (Carini et al., 2017). Business goal in a capitalist system is always

to create biggest economic value by maximizing resource allocation in order to improve quality life and social well-being (Page, 2005). At last, the researcher had found that business socially responsible behavior and certification could influenced MVA which the results support the idea of companies who implement CSR could get better long-run performance. (Carini et al., 2017).

## Summary

In-text citation	Purpose and Research Questions	Theoretical or Conceptual Framework	Participants and Setting	Methodological Info	Results/Findings	Notable Conclusions/ Recommendations for Future Research	Link to My Study
Zahid et al. (2020)	To explore that ESG has positive result in value creation	Theoretical framework	12 sectors with total 878 sample size during 2011-2013	Quantitative data collected from annual reports	Stakeholders' satisfaction had fulfilled by strengthen operation, rules and regulations which create more transparency through ESG practices	Insufficient factors of ESG can be tested	The fundamental of CSR has bring enhancement to ESG with the purpose of promoting the sustainable value and concern for the society continuously
Amel-Zadeh and Serafeim, (2017)	To understand why ESG is important	Conceptual framework	652 responses- 15% of responds were from Asia countries'	Quantitative data, Internet-based survey	ESG information impact on economic aspects. The reason to choose ESG information when making investment decisions was ESG	Limitations to use ESG information for investment decisions were include lack of comparability across companies,	To understand the reason and limitation to choose ESG.

			companies, Europe 40%, North America 34%, South America 3%, Middle east 3%, Africa 2%, Central America 1%		information is material to invest in Malaysia	lack of standards in reporting ESG information and cost of collecting and analysing ESG information performance.	
Perumal (2019)	To explore the relationship between the quality of corporate governance practices/ ESG and firm value	Conceptual framework	50 public listed companies are chosen from the 100 companies listed in MSWG 2017	Secondary data	The purpose of CG to ensure fairness and accountability among Malaysian companies and to reduce investment risk and decrease on cost of capital.	Unable to study the results for the enhancement of MCCG 2021 whether brings greater benefits to stakeholders	Findings are to support CG will affect the willingness to invest.
Johnson (2001)	To examine MVA has connection with financial performance	Theoretical framework		Text book	MVA will considered as the final measurement of value 'created' or 'destroyed' by a business and it will depend on the economic profit (EP) as the position of a value 'creator' or 'destroyer'		To understand how to calculate MVA

Venugopal, Reddy and Sharma (2019)	To examine financial performance affect investment decisions	Conceptual framework	50 paper of researches	Secondary data	Company didn't directly create value but influenced shareholder value through drivers and corporate governance was one of the drivers play a key role in responding the agency problems	May list out any possible drivers that linked	CG is the key terms to study which link to creating shareholder value
Mihajlovski and Gukovas (2020)	To examine ESG has relationship with shareholder value creation  To examine ESG factors affected on financial performance	Conceptual framework	Sustainability Accounting Standards Board (SASB).	Time-series, panel data	ESG performance relate to long-term shareholder value creation and investment that created greater worth for both investors and firm itself  Environmental aspects will impact on stock price.	Do not have any predictive power in terms of future stock performance if based solely on Thomson Reuters scores	
Zumente and Bistrova (2021)	To explore the relationship between the quality of corporate governance practices/	Conceptual framework	122 publicly listed companies from Central and Eastern European (CEE)	two-step research approach by combining the vote-count method and econometric study	ESG data relevance to the investment result and help investors in investment performance with not only the ethical consideration but also financial performance.	When sustainable companies perform better on environment and society-related factors, it will achieve long-	Financial market performance is also partly related in reducing risk and allows

	ESG and performance			aggregation or meta-analysis	Value created for shareholders is driven by cost of capital, operating profit margin, sales growth rate, working and fixed capital investment, income tax and competitive advantage period stressed the financial facets of the shareholder value concept	term shareholder value.	investors to attribute higher valuation to the company based on the risk–return trade-off
Manita et al., (2018)	Relationship between shareholder value and firm	Conceptual framework	379 firms from Standard & Poor's 500 Index (S&P 500) over the period 2010-2015	Fixed effect model	Value creation is depending on shareholders' expectations which form a future anticipation and the 2 key elements to attract and persuade investors to put their money into a project or a firm are because of potential growing or development of the particular company and great returns	Only positive returns can create investment opportunity	MVA is measurement tool on shareholders' value
Abdul Halim (2014)	To examine financial performance	Conceptual framework	306 companies	Bloomberg, FTSE4Good, Asset4,	ESG can brings advantages to investors in supporting decision	The higher ESG disclosure of the	Investors are increasingly

	affect investment decisions		from 2009 to 2012	Goldman Sachs, KLD dataset or Dow Jones Sustainability World Index	making for long-term investments performance and it had become key indicators of management competence, risk management and non-financial performance.	firm, the higher their firm's performance	seen ESG as financially "material" to an investment portfolio ESG
Petravičius and Tamošiūnien, (2008)	To examine MVA has relationship with corporate performance	Theoretical framework		Value-based methods	Management decisions like operating decisions, financing decisions and investment decisions were easily affected shareholders' value from value drivers  MVA could make the most of shareholder wealth by maximizing the differences between the sum of equity shareholders' capital and the market value of firm's stock	MVA reflects company's performance over the by the difference between the total market value of a firm and the total amount of invested capital.	It describes the relationship that how shareholders value is affected
Thomsen (2020)	To explore CG has relationship	Theoretical framework			Maximizing shareholder's value is equivalent to companies maximize profits after deduction of	When the purpose of corporate governance is to make sure value creation, the terms	ESG as a part of CG, if CG is link to value creation, of

	in value creation				opportunities costs which also same as maximizing economic profits net of capital costs.	of value creation can be explained as a corporate objective function which has powerful implications towards the structure of corporate governance	course ESG does.
Berzakova, Bartosova and Kicova (2015)	To examine ESG is related to financial performance	Theoretical framework			MVA represents the present value of EVA and more advance in defining as senior level management which it has better descriptive power in valuation of the corporate as a whole	Good to show comparison between different indicators but may explain which is the best measures	Formula of MVA and relationship with EVA
Ramly and Rashid (2010)	To explore the relationship between the quality of corporate governance practices/ ESG and firm value	Theoretical framework			Strong CG mechanism will minor risk of a firm, after that to lower cost of capital which indirectly raise an organization's market value.	The cost of capital is extremely essential for an organization to evaluate future investment opportunities and reconsider existing investments	Finance performance is a part of firm performance and when performance is increase, the value is created

Johan (2019)	To examine MVA has relationship with corporate performance	Conceptual framework	Public listed companies with shares listed on the Indonesia Stock Exchange from 2009-2016.	Step-by-step process	MVA has relationship with reporting earning but MVA has stronger explaining reported earning than EVA	The negative value of EVA and the difference between ROE and negative WACC are not always reflected by the negative MVA.	Formula of MVA and relationship with EVA
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# **CHAPTER 3**

## **RESEARCH METHODOLOGY**

### **3.0 Introduction**

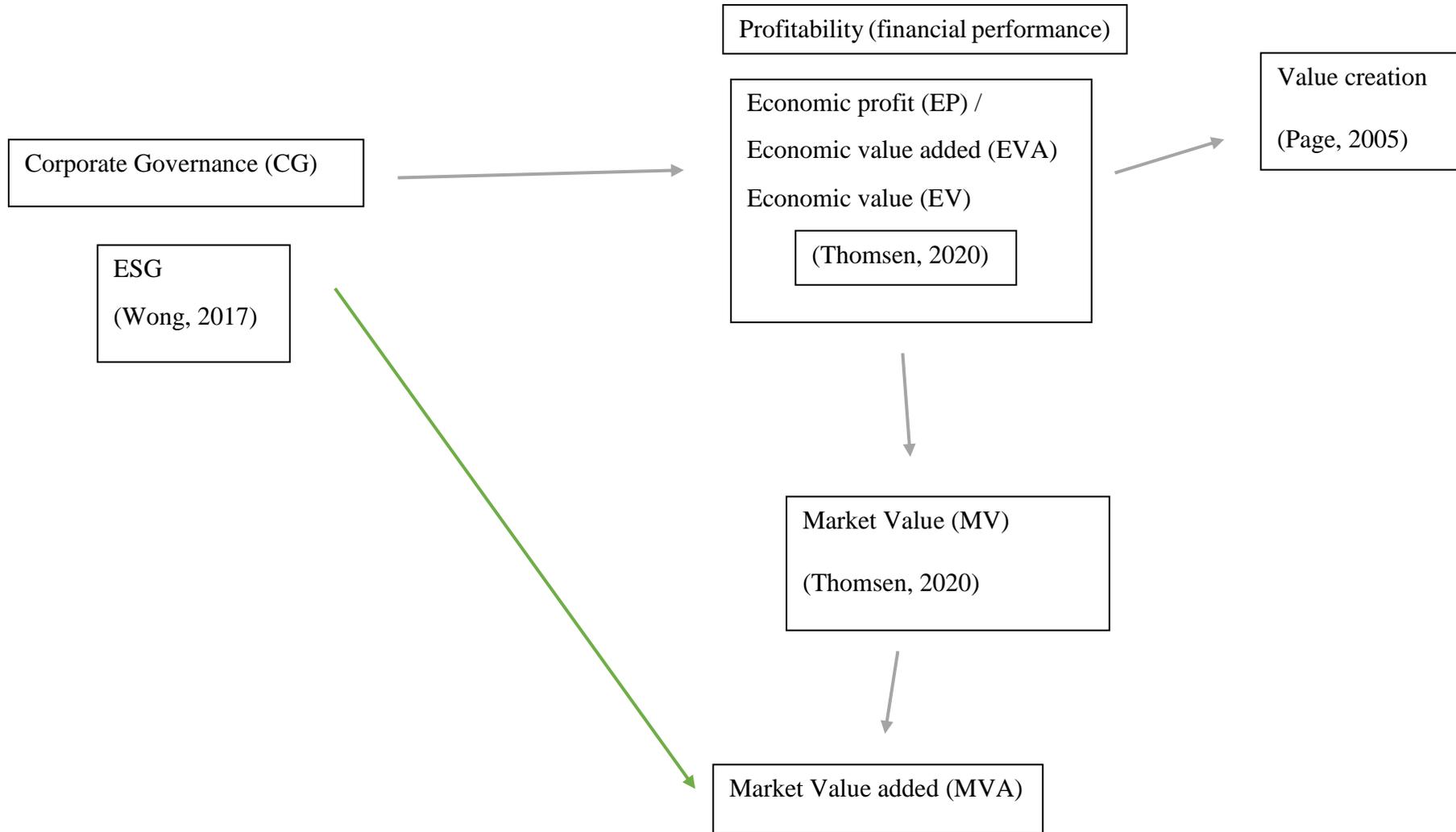
Conceptual framework, research framework, hypothesis development, method of selecting samples, collecting and analysing data will describe in this chapter. In details, this chapter consists of research design, data collection method, sampling design, research instrument and data analysis. Also, the method to examine the objectives of the research is included.

### **3.1 Conceptual framework**

Shareholder value had improved by better stakeholder management

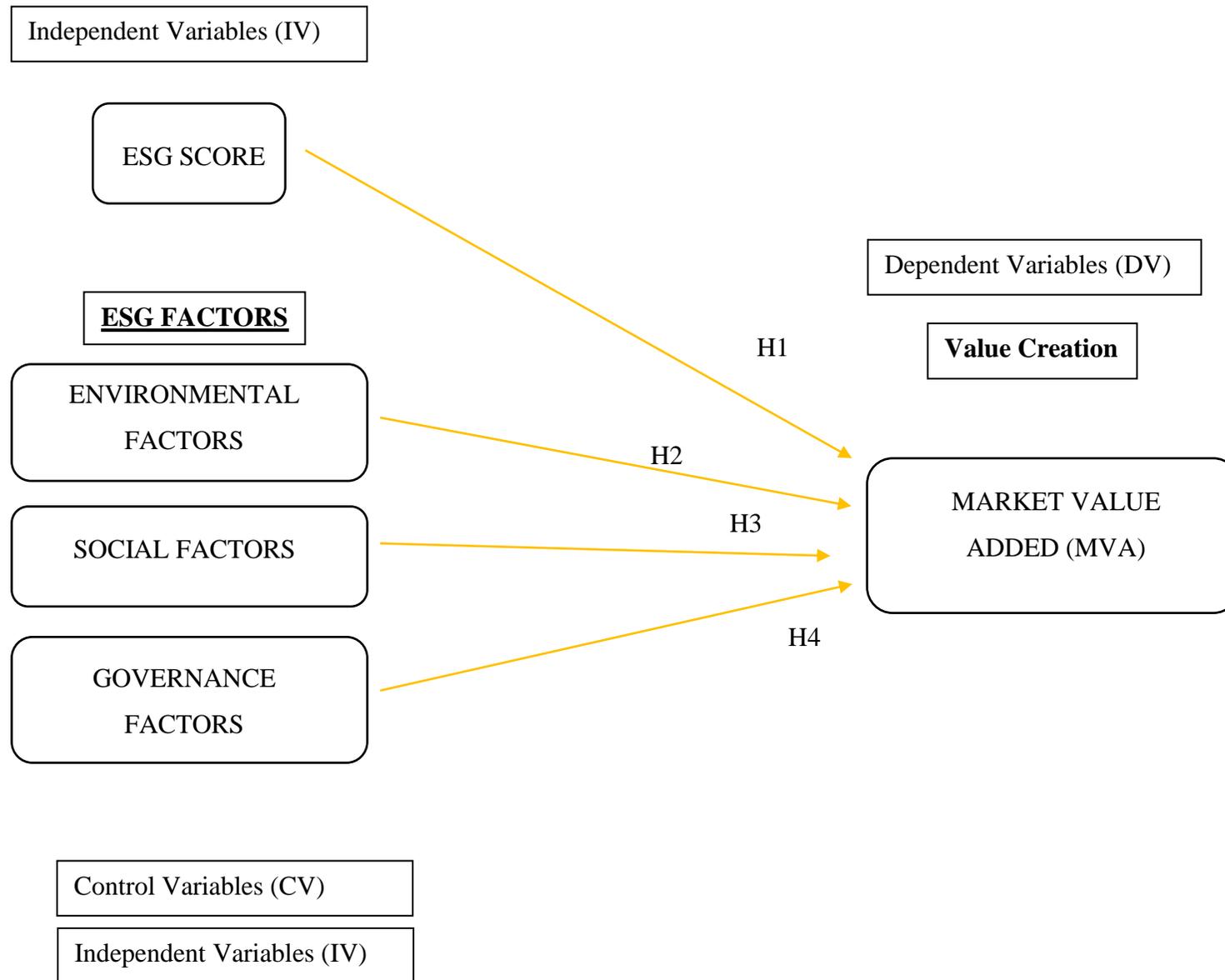
We test these propositions with data from S&P 500 firms and find evidence that stakeholder management leads to improved shareholder value, while social issue participation is negatively associated with shareholder value (Hillman & Keim, 2001).

Graph 3.1 Conceptual framework



### 3.2 Research framework

Graph 3.2: Research Framework



### **3.3 Hypothesis Development**

Hypothesis 1: ESG score has positive relationship with Market Value Added (MVA)

Hypothesis 2: Environmental factors has positive relationship with Market Value Added (MVA)

Hypothesis 3: Social factors has positive relationship with Market Value Added (MVA)

Hypothesis 4: Governance factors has positive relationship with Market Value Added (MVA)

### **3.4 Research design**

“Research design” (2022) described that techniques and methods used by a researcher for a collection of data in making clear direction in conducting the research. In same meaning, set a hypothesis for group of data and information in order to get substantive findings in a systematic way which help researcher to peruse the related research (“Research Design”, 2022”). There are total 2 major types of research design which are quantitative research design and qualitative research design with 4 key characteristics – validity, reliability, generalization and neutrality to ensure the result is fair and accurate. Quantitative research is chosen for the topic that Creswell (2013) said that is a method focuses on gathering numerical data from a group of people to explain a phenomenon with consisting introduction, literature, theories, approaches, discussion and results. The key differences between quantitative research and qualitative research are qualitative research represents words more that graphs, numbers or tables in the form of expression, with open ended inquiries rather than using closed questions like multiple choices, focus on generating ideas and developing hypothesis or theory (“Research Design”, 2022”).

Under quantitative research, there are also split to few kinds of research design which are descriptive, correlational, experimental, diagnostic and explanatory. For

this research, correlational research project would be used to assess the relationships between and among 2 or more variables as Walinga and Stangor (2014) analysed the disadvantage of this research design is not suitable for causal relationships between and among the variables to get inferences. Moreover, “Correlational Research: Definition with Examples” (2021) stated that correlational research characteristics are non-experimental, backward-looking and dynamic. This means researchers not need to agree or disagree with the hypothesis but to measure and observe the relationship between variables without changing or subjecting them to external conditioning; it only looks back and observe at the past for the historical data; they might have negative correlations in the past but it could be positive in the future as the patterns are always changing (“Correlational Research: Definition with Examples”, 2021).

The purpose of this study is to explore the impact of ESG factors effect on shareholders’ value and among public listed companies in Malaysia. The data collected would be the quantitative data accumulated from the annual reports of good disclosure public listed companies that were shortlisted and the collection were performed using the Bursa Malaysia websites, Investors Relation and Bloomberg as well. The period chosen for the data collected for this research was from the year 2012 to 2020. The reason not to get earlier than 2012 and latest 2021 was because of insufficient data from Bloomberg where some companies only report their ESG score until 2020 only.

### **3.5 Data collection method**

#### **3.5.1 Secondary data**

Definition of secondary data is researcher take the information that has gathered or collected by others (primary sources) or external platform like magazines, articles, e-journal, books and internet for own research purposes. For example, questionnaire, case studies, interview, reports, experiments, surveys, observation, library resources and so on are consider as secondary data. Search engines and database websites

such as Google Scholar, ScienceDirect, ResearchGate, Emerald Publishing, Scopus and more are highly recommended to use for research project due to wide range of information and academic journals for researchers. Data and information that found from these platforms are reliable enough as they are recognized by qualified researchers and scholars. Next, in order to calculate shareholders' value, data is collected from each companies' annual report.

### **3.5.2 Bloomberg**

In this study, part of the secondary data is collected from Bloomberg platform which provides financial real-time data and records for many years. According to Roush (2021), Micheal Bloomberg established Bloomberg in the year of 1981 as financial data, analytical and news providers through innovative technology via Bloomberg terminal. It is located New York, US. Their variety services include actual data from numerous companies, business-finance-economic related magazine, radio stations, television network, analytic and equity trading platform that informative details practical information as an advice for decision marking in organize a company.

### **3.5.3 Annual report**

Annual report of a company is a corporate document that reveal their financial condition and operations over previous year. The data required from the annual report is main to calculate the value of MVA like share price, number of shares, market capitalized and total shareholder' equity. Share price and market capitalization data could be find at the part of summary financial performance or chairman's note and the data is taken under financial year ended date. Besides that, number of shares could be found at shareholders analysis which a table was showing how many had held by shareholders. Total equity could be found in the financial statements.

## **3.6 Sampling design**

### **3.6.1 Target population**

“Define the target population” (2022) pointed that target population is a range of people for the designed program to conduct research and achieve outcomes. In order to have sufficient data for research, all public listed companies that under Bursa Malaysia had considered as target. The priority to get the ESG data is the top 100 companies by market capitalization. Most of the well performing companies that in rank are easily found in Bloomberg terminal. Unfortunately, only a total of 90 companies of ESG data was successful collected. Some of the newly listed companies like Mr DIY and unpopular companies did not have ESG data. This was believed that due to ESG reporting is not a necessary reports that required by the government.

### **3.6.2 Sampling element**

Sampling element is either a person, group, companies or others in a specific population, so they will have equal chances to be picked and measured in the study. All public listed companies is the population to study to make sure to get sufficient data for research. After go through all public companies that listed in Bursa Malaysia, the sampling frame would be the 90 companies as mentioned after shortlisting among public listed companies under Bursa Malaysia and the period of study are range from the year 2012-2020.

### **3.6.3 Sampling techniques**

Non-probability sampling is used in this study, McCombes (2022) commented that individuals are purposely being chosen based on non-random criteria in a non-probability sample. This kind of sample is lower cost and easier to access but might

facing higher risk of sampling bias (McCombes, 2022). However, due to not much companies have reporting ESG, therefore only filter all the public listed companies to get whichever has the ESG score. From that, time consuming is the biggest disadvantage. Those companies that selected in this research were from various sectors such as manufacturer, plantation, property, communication, finance, oil and gas, logistic and others to conduct in this study.

### **3.6.4 Sample size**

*“What is sample size? Definition”* (2022) mentioned that sample size is used in market research to define the number of subjects in a selected sample. A sample size of 90 public listed companies from Bursa Malaysia listing under main market, Ace market and LEAP market for the period of 9 years, from 2012-2020 which results at 810 observations. The reason to choose public listed companies is because of ESG reporting are highly encourage them to disclose besides annual report due to enhance the transparency of company’s management towards shareholders.

### **3.7 Research instrument**

Corporates’ annual report could be found from their official website, Bursa Malaysia website or third party like like Klscreener.com. Some official website may not keep annual reports for so many years wat back to 2012, therefore, only could search on third parties. Even some companies’ share price couldn’t be found, only through search engine like Google Finance to get the data. After that, all the information will need to calculate their relationship by using SmartPLS software. It is a software with graphical user interface for variance-based structural equation modelling using the partial least squares path modelling method.

### **3.8 Reliability and validity**

The figures of ESG score and each ESG factors are taken from Bloomberg platform which are reliable and trustable enough as it has developed for many years and famous of collecting financial data from various companies all around the world. The ESG data that found in the Bloomberg platform is under companies' self-reporting. Before proceeding with the measurement model, normality of data is important to test through Confirmatory factor analysis (CFA) model by using multivariate and univariate normality tests.

### 3.9 Construct measurement

#### 3.9.1 Origin of construct

The origin of construct of this research is taken from the ESG score report that available in Bloomberg platform. The tables below show 1 control variable, 3 independent variables and 1 dependent variable.

Table 3.1 Table of variables

<b>Dependent Variable</b>	<b>Indicators</b>	<b>Measurement Scale</b>
Environmental factors	Total GHG emissions	Interval scale
	Total energy consumption	Interval scale
	Total water use	Interval scale
Social factors	Number of employees	Interval scale
	Percentage employee turnover	Ordinary scale
	Percentage women in workforce	Ordinary scale
	Percentage women in management	Ordinary scale
	Community spending	Interval scale

Governance factors	Size of board	Interval scale
	Independent directors	Interval scale
	Board Duration (Years)	Interval scale
	Number of board meetings	Interval scale
	Board management attendance	Interval scale

Independent Variable	Formula	Reference	Measurement Scale
Market value added (MVA)	$MVA = Total\ Market\ Value\ of\ Equity - Total\ Book\ Value\ of\ Equity$	Siburian and Yohanes (2019)	Nominal scale 1=Positive 2=Negative

Control Variable	Description	Measurement Scale
Year of ESG data	The year of ESG data collected	Nominal scale 2012-2020

### 3.10 Data analysis

Memon, Ramayah, Chuan, Ting and Cham (2021) agreed that Partial least squares structural equation modelling (PLS-SEM) is been widely used among business and social science scholars as methods of multivariate data analysis. It could handle complex cause-effect relationships that suits this research with multiple dependent variables. “Structural Equation Modeling” (2021) stated that Structural Equation Modeling (SEM) is used to access the validity and reliability of the model. Structural model and measurement model are the types under SEM. Structural model is picked for the study as it represent the way that constructs affecting each other.

### **3.10.1 Descriptive analysis**

Rawat (2021) explained that descriptive analysis is one of the key components for conducting statistic data analysis and support researcher in describing, summarizing and showing data points in a productive way. A clearer understanding is provided through the overall study and transformed raw data into more simplified form.

### **3.10.2 Factor Analysis**

*“3 types of factor analysis”* (2022) explained that factor analysis is commonly used as a tool to deal with enormous amount of data in analysing the relationship between 2 observable variables and evaluate the way it affecting by another smaller set of unobservable variable. Exploratory factor analysis (EFA), Confirmatory factor analysis (CFA) and Structural equation modelling are the 3 types of factor analysis.

#### **3.10.2.1 Confirmatory factor analysis (CFA)**

*“Confirmatory factor analysis”* (2021) stated that used as a tool to reject or confirm the measurement theory in assessing the measurement model validity. The reason to do so is to check the correlation and effects of an existing set of predicted factors and variables that affecting each other (*“3 types of factor analysis”*, 2022). Nunkoo and Ramkissoon (2012) found that CFA also known as measurement model as it also has same function of shaping the items that constitute the measurement of an underlying Latent variable.

The objective of CFA is shorten the gap between theory and observation and test whether the data fit with hypothesized measurement model. The factor loading latent variable should not lower than 0.7, however figure close to 0.7 like 0.69 also can be accepted as long as not a big variance.

### **3.10.3 Structural model analysis**

Structural model was defined as combined path models and measurement that prescribed connection among observed variables and latent variables (Nunkoo & Ramkissoon, 2012). It used to examine relationship among latent variables and hypothesis tests regarding the causal relations between endogenous and exogenous variables that specified in the path diagram. Benitez, Henseler, Castillo and Schubert (2020) suggested that researcher should examine path coefficient, significance of variables, overall fit of estimated model, coefficient of determination ( $R^2$ ), effect size ( $f^2$ ) while evaluating the structural model.

### **3.11 Conclusion**

Important methodologies has brought out in this chapter that not only mentioning research design, but also data collection method, sampling design, data analysis, research instrument, construct measurement and data analysis. This research approach is used to accumulate data and statistic techniques in analyzing data for testing the relationships between ESG factors and the impact on MVA for public listed companies in Malaysia.

# CHAPTER 4

## RESEARCH RESULT

### 4.0 Introduction

This chapter outlined data analysis and results on the research questions and objectives. The result that accumulated from secondary data are presented and evaluated in Smart PLS and PLS-SEM to determine.

### 4.1 Response rate

Table 4.1 Rate of data collected from public listed listing

<b>Total number of listed companies (2021)</b>	967
<b>Completed number of companies collected</b>	90
<b>Overall response rate</b>	0.0931%

Note: Total number of listed companies are adopted from *Listing statistic* (2022) Bursa Malaysia. Retrieved from [https://www.bursamalaysia.com/listing/listing\\_resources/ipo/listing\\_statistic](https://www.bursamalaysia.com/listing/listing_resources/ipo/listing_statistic)

There are total 967 public listed companies under Main market, Ace market and Leap market in 2021. Only 90 companies are successfully collected that having ESG data and the respond rate is only 0.0931%.

## 4.2 Descriptive analysis

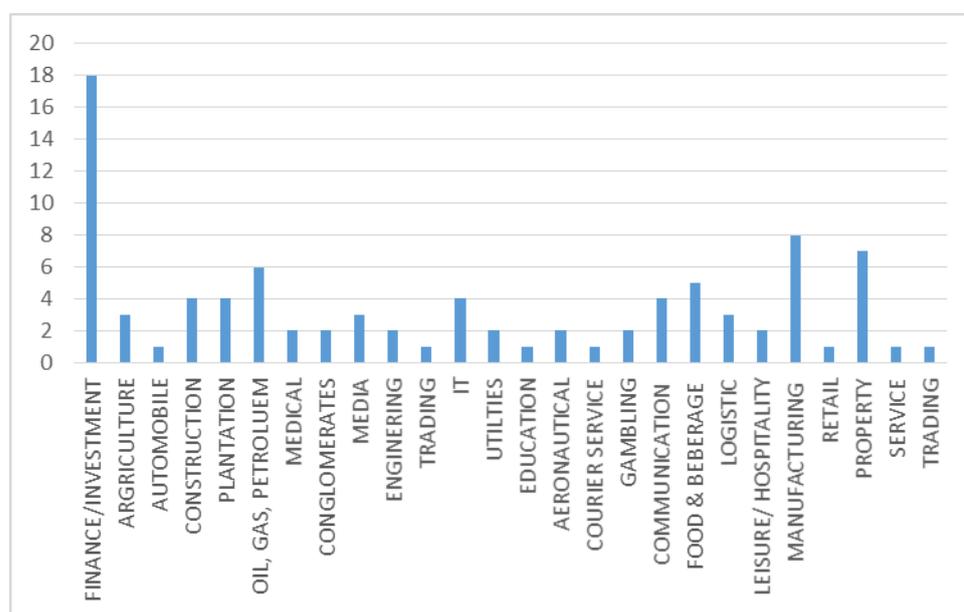
Frequency and percentage to all the respondents (90 public listed companies that collected) will explain in this section. The analysed data will show in bar chart and table format.

Table 4.2 Frequency table on company sector that report ESG score

Industry	Number of companies	Percentage
FINANCE/INVESTMENT	18	20.00%
ARGRICULTURE	3	3.33%
AUTOMOBILE	1	1.11%
CONSTRUCTION	4	4.44%
PLANTATION	4	4.44%
OIL, GAS, PETROLUEM	6	6.67%
MEDICAL	2	2.22%
CONGLOMERATES	2	2.22%
MEDIA	3	3.33%
ENGINERING	2	2.22%
TRADING	1	1.11%
IT	4	4.44%
UTILTIES	2	2.22%
EDUCATION	1	1.11%
AERONAUTICAL	2	2.22%
COURIER SERVICE	1	1.11%
GAMBLING	2	2.22%
COMMUNICATION	4	4.44%
FOOD & BEBERAGE	5	5.56%
LOGISTIC	3	3.33%
LEISURE/ HOSPITALITY	2	2.22%
MANUFACTURING	8	8.89%
RETAIL	1	1.11%
PROPERTY	7	7.78%
SERVICE	1	1.11%
TRADING	1	1.11%

Note: Developed for the research

Figure 4.3 Bar chart on company sector that report ESG score



Note: Developed for the research

### 4.3 Factor analysis

#### 4.3.1 Factor loading

The table below stated each constructs' factor loading figure after computed from PLS software and stated which need to remain and dropped. Hair, Risher, Sarstedt and Ringle (2019) pointed out that factor loading of latent variable should not lower than 0.708 and a figure that close to 0.7 like 0.69 is acceptable. This indicator means the variables or items are reliable.

Table 4.3 Measurement items and their reliability (Origin)

Construct and respective items	Factor loadings
<b>ENVIRONMENTAL FACTORS</b>	
Total GHG emissions (EDS1)	0.325 (dropped)

Total energy consumption (EDS2)	0.955
Total water use (EDS3)	-0.188 (dropped)
<b>SOCIAL FACTORS</b>	
Number of employees (SDS1)	0.553 (dropped)
Percentage employee turnover (SDS2)	-0.262 (dropped)
Percentage women in workforce (SDS3)	-0.223 (dropped)
Percentage women in management (SDS4)	-0.109 (dropped)
Community spending (SDS5)	0.842
<b>GOVERNANCE FACTORS</b>	
Size of board (GDS1)	0.863
Independent directors (GDS2)	0.776
Board Duration (Years) (GDS3)	-0.112 (dropped)
Number of board meetings (GDS4)	0.359 (dropped)
Board management attendance (GDS5)	-0.446 (dropped)

Note: Developed for the research

As presented in table 4.3, the highest loading was 0.955 from item EDS2. The lowest loading was fall on GDS5 with negative 0.446 that is lower than 0.708 and this item should be dropped. Most of the items did not meet the requirement in reaching 0.708 or even close to 0.6, include EDS1, EDS3, SDS1, SDS2, SDS3, SDS4, GDS 3, GDS4 and GDS5. The remaining items left 3 which were EDS2. SDS 5, GDS1 and GDS2.

Table 4.4 Measurement items and their reliability (After revise)

<b>Construct and respective items</b>	<b>Factor loadings</b>
<b>ENVIRONMENTAL FACTORS</b>	
Total energy consumption (EDS2)	1

### **SOCIAL FACTORS**

Community spending (SDS5)	1
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### **GOVERNANCE FACTORS**

Size of board (GDS1)	0.9
Independent directors (GDS2)	0.879

Note: Developed for the research

Table 4.4 was representing the final measurement items after kicking off those not reliable items. Due to there was only 1 item under each variables, therefore the figure of loading under environment and social factor stated 1. GDS1 shown 0.9 loading and GDS2 was 0.879 which all meet the criteria of at least meet 0.708.

### **4.3.2 Convergent validity**

Table 4.5 Internal consistency and convergent validity

Construct	Cronbach's Alpha	Rho_A	Composite Reliability	Average Variance Extracted (AVE)
ENVIRONMENTAL FACTORS	1	1	1	1
ESG SCORE	1	1	1	1
GOVERNANCE FACTORS	0.736	0.74	0.883	0.791
MARKET VALUE ADDED	1	1	1	1
SOCIAL FACTORS	1	1	1	1

Note: Developed for the research

Table 4.6: Matrix of factor loadings (crossloadings) (n=90)

	<b>ESG SCORE</b>	<b>ENVIRONMENTAL FACTORS</b>	<b>SOCIAL FACTORS</b>	<b>GOVERNANCE FACTORS</b>	<b>MARKET VALUE ADDED</b>
<b>ESG</b>	1.000	0.144	0.305	0.307	-0.045
<b>EDS2</b>	0.144	1.000	-0.011	0.089	-0.105
<b>SDS5</b>	0.305	-0.011	1.000	0.197	-0.097
<b>GDS1</b>	0.174	0.089	0.074	0.900	-0.058
<b>GDS2</b>	0.382	0.068	0.286	0.879	-0.053
<b>MVA</b>	-0.045	-0.105	-0.097	-0.062	1.000

Note: Developed for the research

Note 1: All factor loadings are significant at 1%

The second step is evaluating internal consistency reliability by checking on RHO\_A. It is useful to decide the reliability of coefficient (Tan, 2019). Value that between 0.60 and 0.70 are considered acceptable in exploratory research, if fall between 0.70 and 0.90 are belongs to satisfy (Hair et al., 2019). But if value point on 0.95 and higher are problematic, the items are redundant and will reduce construct validity. Governance factors concluded as reliable but Environmental factors, social factors and MVA may result less valid.

Average Variance Extracted (AVE) is the point to check on convergent validity (Tan, 2019) as it explain the amount of variance when measuring among multiple items toward same concept in agreement (Hair et al., 2019). When AVE is accepted when the value is above 0.5 and that means the construct has at least 50% of the variance of its item. Governance factors had 0.791 and others had 1 of AVE as shown in table 4.5. All the constructs have higher than 0.5 of AVE.

### **4.3.3 Internal consistency reliability**

To measure general reliability of a group of assorted but alike items, need to look for Composite reliability (CR) (Tan, 2019). Internal consistency reliability is essential as it reflect the level of construct indicators reveal latent construct. CR shall higher than 0.7 which Governance factors has the value of 0.883 and others stated as 1 from table 4.5. There is another measurement to measure internal consistency reliability- Cronbach's alpha, but produces lower values than composite reliability (Hair et al., 2019).

#### 4.3.4 Discriminant validity

Table 4.7 Fornell and Larcker criterion

<b>Discriminant Validity</b>	<b>EF</b>	<b>ESG SCORE</b>	<b>GF</b>	<b>MVA</b>	<b>SF</b>
ENVIRONMENTAL FACTORS	<b>1</b>				
ESG SCORE	0.144	<b>1</b>			
GOVERNANCE FACTORS	0.089	0.307	<b>0.889</b>		
MARKET VALUE ADDED	-0.105	-0.045	-0.062	<b>1</b>	
SOCIAL FACTORS	-0.011	0.305	0.197	-0.097	<b>1</b>

Note 1: Developed for the research

From table 4.7, the figure in bold represented as square root of AVE. The reason discriminant validity is to ensure no significant variance among different variables and the square root of AVE is suggested to be greater than the correlations with other constructs (Tan, 2019). At the same time, research also suggested another method to observe the correlation between 2 latent variables which the correlation must not higher than 0.9 (Tan, 2019). Except governance factors shown 0.889,

others like MVA, social factors, environmental factors are equal to 1. This situation could be explain as there was only 1 items under the particular variable.

#### 4.4 Structural model assessment

The structural model reflects the path hypothesized in the research framework and it accessed based on  $R^2$ ,  $Q^2$  and significant of path.  $R^2$  value determined the strength of each structural path and show the goodness of the model.

Bootstrapping is conducted on the constructs based on a total of 810 entries, a 95% confidence interval in accordance to it and all p-value must under 0.05. T-statistic must bigger than 1.96 then the path coefficient only consider to be significant.

Table 4.8 Path Coefficients (Inner Model)

	Standard Beta	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
ENVIRONMENTAL FACTORS -> MARKET VALUE ADDED	-0.1045	0.0293	3.5655	0.0004
ESG SCORE -> MARKET VALUE ADDED	0.0105	0.037	0.284	0.7765
GOVERNANCE FACTORS -> MARKET VALUE ADDED	-0.0374	0.0362	1.0321	0.3023

SOCIAL FACTORS -> MARKET VALUE ADDED	-0.0945	0.0182	5.1868	0
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Note 1: Developed for the research

#### 4.4.2 Collinearity assessment

Table 4.9: VIF value

Construct	VIF
EDS2	1
ESG	1
GDS1	1.514
GDS2	1.514
MVA	1
SDS5	1

Note: Developed for the research

Variance Inflation Factor (VIF) used to decide multicollinearity and when the value is greater than 10, it is consider to be multicollinearity (Tan, 2019). Another researcher concluded that when  $VIF \geq 5$  stands for possible collinearity, when VIF is equal to 3 and between 5, it is ideally. Last  $VIF < 3$  is safe (Hair et al., 2019). Therefore, it could be concluded that there was no multicollinearity in this study from the above and the constructs are different and are measuring different aspects.

### 4.4.3 Testing Hypothesis

Table 4.10 Results of Path Coefficients and Hypotheses Testing

Hypothesis	Relationship	Standard Beta	Standard Deviation	T Statistics	P Values	Decision
H1	ESG > MVA	0.0105	0.037	0.284	0.7765	Decline
H2	EF > MVA	-0.1045	0.0293	3.5655	0.0004	Support
H3	SF > MVA	-0.0945	0.0182	5.1868	0	Support
H4	GF > MVA	-0.0374	0.0362	1.0321	0.3023	Decline

Note: Developed for the research

Table 4.10 explained the results of Path Coefficients and Hypotheses Testing of this study under structural model. The decisions to accept or reject is stated as below:

#### **Hypothesis**

H1 is declined as can see from the table, the path coefficient 0.0105, with 0.284 T-statistic which higher than 1.96. On the other hand, H2 is supported as having negative path coefficient and 0.0004 T-statistic. Moreover, H3 is not supported due to negative path coefficient and 0 T-statistic. H4 has 0.3023 T-statistic but negative beta which is considered not supported.

### 4.4.4 Determination of coefficient assessment

Table 4.11: Determination of coefficient

	R Square
MARKET VALUE ADDED	0.0221

Note: Developed for the research

R square has greater explanatory power when it falls in the range from 0 to 1. When it values 0.75, it stands for substantial. It is considered as moderate if value around 0.5. Last, it is weak if below 0.25. R square means the number of predictor constructs, so the higher the R square when the bigger number of predictor constructs (Hair et al., 2019).

#### 4.4.5 Determination of predict accuracy, $Q^2$

Table 4.12: Predict relevance

	$Q^2 (=1-SSE/SSO)$
MARKET VALUE ADDED	0.021

Note: Developed for the research

$Q^2$  value is calculated by using blindfolding method in Smart PLS software. It is a value to study one of the criterion of predictive accuracy (Tan, 2019). The value is considered meaningful when higher than 0. At the same time, value larger than 0 illustrate small predictive accuracy; value larger 0.25 illustrate medium predictive accuracy; and value larger than 0.50 illustrate large predictive accuracy of the PLS path mode (Hair et al., 2019).

## **CHAPTER 5**

### **DISCUSSION AND CONCLUSION**

#### **5.1 Introduction**

Total of five sessions that comprises in this chapter with the discussion on findings, limitations of research, recommendations for future research and conclusion.

#### **5.2 Discussion on findings**

##### **5.2.1 Descriptive analysis**

Less than 100 companies could found that having ESG reporting in Bloomberg and only 0.0931% for the overall response rate based on the total number of public listed companies under Bursa Malaysia. Among these companies, researcher found some newly joined as public listed companies and not popular companies are not having ESG reports in Bloomberg platform.

In the total of 90 companies, consists of more than 20 different industries among them, financial / investment industry holds the largest percentage in overall which is 20%. Manufacture industry holds the second place with 8.89% and thirdly is property companies with 7.78%. Next, Oil Gas, Petroleum industry has 6.67% and F&B industry has 5.56%. Others industries like communication logistic, plantation, construction are having less than 5%.

## 5.2.2 Factor analysis

Reliability and validity of measurement items had checked in the factor analysis section. Originally, there are 13 items as measurements, however most of their value were less than 0.708 and some of them having negative value which shown non reliable, the measurements were decided to dropped. The final remain measurements are Total Energy consumptions from environmental factor, community spending from social factors, board size and number of independents directors from governance factors.

Table 5.1 Results on the hypothesis testing

<b>Hypothesis</b>	<b>Value Score</b>	<b>Decision</b>
H1: ESG score has positive relationship with Market Value Added (MVA)	$\beta=0.0105$ $P (0.7765) > 0.050$	Not supported
H2: Environmental factors has positive relationship with Market Value Added (MVA)	$\beta= -0.1045$ $P (0.004) < 0.050$	Supported
H3: Social factors has positive relationship with Market Value Added (MVA)	$\beta= -0.0945$ $P (0) < 0.050$	Supported
H4: Governance factors has positive relationship with Market Value Added (MVA)	$\beta= -0.0374$ $P (0.3023) > 0.050$	Not supported

The above table shown the relationship among ESG score, Environmental factors, Social factors and Governance factors. Hypotheses were formed to examine their relationship. H1 has the highest beta (0.0105) which mean there is important for MVA but not significant relationship.

### **5.2.3 Findings on hypothesis**

#### Relationship between ESG score with MVA

Hypothesis 1: ESG score has positive with Market Value Added (MVA)

The result ( $\beta=0.0105$ ,  $P (0.7765) > 0.050$ ) showing no positive but insignificant relationship between ESG and MVA.

#### Relationship between Environmental factors with MVA

Hypothesis 2: Environmental factors has positive relationship with Market Value Added (MVA)

The results ( $\beta= -0.1045$ ,  $P (0.004) < 0.050$ ) showing negative but significant relationship between Environmental factors with MVA.

#### Relationship between Social factors with MVA

Hypothesis 3: Social factors has positive relationship with Market Value Added (MVA)

The results ( $\beta= -0.0945$ ,  $P (0) < 0.050$ ) showing negative but significant Social factors with MVA.

## Relationship between Governance factors with MVA

Hypothesis 4: Governance factors has positive relationship with Market Value Added (MVA)

The results ( $\beta = -0.0374$ ,  $P (0.3023) > 0.050$ ) showing negative relationship and also no significant Governance factors with MVA.

## **5.4 Implications on the Study**

## **5.5 Limitation of research**

Few limitations has identified by researcher throughout the research process of this study. First and foremost, this research only covers 90 public listed companies over a total amount of 967 public listed companies under Bursa Malaysia. The percentage of data collected is too low, even not reach 1%. Insufficient data sample might affect the fairness of result. This no ideally circumstances derived from the ESG reporting not yet popular or bring in as compulsory reporting by Malaysia public listed companies.

Nevertheless, missing data was found in the reports when downloaded from Bloomberg. This is because unstandardized of reporting occurred and some criteria may not fit to every companies. For example, one of the criteria under environmental factor is reporting the data of hazardous waste, this disclosure may applicable for those manufacturer or heavy industrial sector.

At the same time, not only the unstandardized of reporting, but also the standard of report by government or Bloomberg may change from time to time, the score of reporting may modified. This situation was found when the data was different that

taken from November 2021 and February 2022. Even though, ESG reports are based on organization self-reporting, the accuracy of data is suspected. The example of Top Glove Corporation which reported by Razak (2020), the particular company got accused of underpaying & cheating workers in bid to meet global rubber glove demands during the period of COVID-19. Another case that happened on Supermax berhad, Nadia (2021) reported that factory workers was being treated unfair. These news might not reported until whistleblowed by someone because it will affected the reputation of the company. The criteria of workers right shall be included in the report to ensure humanity is assured.

Fourth, the above study had overlook other possible factors that may affect shareholders' value as different people have their own concern to judge whether the particular corporate could bring greater value than expected to them.

Moreover, due to time constraint, researcher unable to further analyse or observe the changes of ESG score and ESG factors on the MVA towards Malaysia's public listed companies from year to year in order to judge them whether their governance and disclosure ability had improve or decrease.

## **5.6 Recommendations for future research**

Recommendations and improvements are given in this section to overcome the limitations after viewing the limitations that mentioned previously.

At first, may pick other ESG report as research target such as FTSE4Good index series as another choice. Moreover, to put dummy data in to data set is not much missing data, but if the missing data was over 20%, the variables should drop. Consideration of other factors that might could affect like human rights into the research.

## **5.7 Conclusion**

Overall, due to insufficient measurements to test in this research, the final result shows ESG score has positive relationship towards market value added that create shareholders' value among Malaysia public listed companies. Unfortunately, environmental factors, social factor and governance factors did not have any relationship towards MVA.

This situation of low rate of ESG reporting in Bloomberg platform demonstrate that most of the companies not yet prepare to report and this shall be encourage companies to do so due to the attention is getting higher from Malaysia society and even create a healthier environment.

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