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**ENVIRONMENT SOCIAL GOVERNANCE INVESTING AND  
FIRM PERFORMANCE IN TELECOMMUNICATION INDUSTRY**

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**Abstract**

This research explores the use of business sustainability performance in Telecommunication Companies to understand the driving force of financial performance and non-financial Environment Social Governance performance. It explains the use of Shareholder and Stakeholder Models to understand the relationship between financial and non-financial ESG sustainability and firm performance. It describes that the ultimate goal of maximization of a firm's value is driven by improved and non-financial ESG sustainability performance. The inter-working among these variables will lead to reduced cost of capital, hence acting as protection against future economic shocks caused by a pandemic or financial crisis. The sustainability models provided by shareholder wealth maximization and stakeholder welfare maximization can create both synergies and conflicts simultaneously; hence, finding the optimal balancing act in determining the investment appetite into the firm, known as ESG investing, is key. The findings will provide firms with the right tools to attract a good flow of investment at cheaper rates into the company. In addition, companies with positive business sustainability performance will increase ESG investing appetite as they see their investment protected from future economic shocks caused by the future crisis.

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*Keywords:* ESG investing, business sustainability, shareholder wealth, stakeholder welfare, cost of capital

## **1. Introduction**

### **1.1. Challenges**

The COVID-19 pandemic exposed numerous inefficiencies in traditional practices, offering a chance to optimize and enhance operational efficiency. One significant area affected was online learning. Urban students had fewer issues accessing online education due to better internet services provided by Telecommunication Companies (Telcos). However, students in rural areas faced severe disruptions due to unstable or non-existent internet connections, exacerbating the digital divide.

The Universal Service Provisioning (USP) Regulation by the Malaysian Communication and Multimedia Commission (MCMC), established in 2008, mandates Telcos to contribute 6% of their revenue to improve rural communication infrastructure. Despite this, rural areas still suffer from inadequate internet connectivity. Since 2008, approximately RM12-13 billion has been invested through the USP Fund, yet the pandemic highlighted significant gaps in rural internet infrastructure.

Investment in network infrastructure through USP is crucial, but so is Telcos' investment in sustainability initiatives to ensure business continuity during crises. Research will explore if Telcos have balanced investments in tangible assets (like infrastructure) and intangible assets (such as ESG) to enhance firm value and reduce the cost of equity capital, thereby ensuring sustainability against economic shocks.

Despite positive correlations between ESG dimensions and financial performance, companies' selective approaches to ESG can lead to mixed results. Some Telcos prioritize specific ESG pillars over others, affecting their long-term investment capabilities and service quality. Lower investments in digitalization hinder a company's ability to meet customer expectations and maintain competitive service standards.

The pandemic has taught us to innovate and improve business practices. Reports often highlight students' struggles with online education due to poor internet connectivity in rural areas, emphasizing the need for sustained investment in digital infrastructure. Telcos must enhance both financial and non-financial ESG aspects to maintain robust corporate performance and ensure continued contributions to the USP Fund. Improved retained earnings from better ESG practices will support future investments and service quality improvements, meeting rising customer demands and reducing the digital divide.

## **2. Problem Statement**

Telcos, when investing responsibly in network coverage, aim to balance stakeholder needs with profit maximization. Shareholders demand returns, making financial performance crucial. However, non-financial ESG dimensions are equally important for market success. Telcos strive for business sustainability, pleasing both shareholders and stakeholders.

Two theories frame this context: Shareholder Theory, which focuses on profit maximization, and Stakeholder Theory, emphasizing relationships with all stakeholders. Under Shareholder Theory, a firm's value is tied to financial sustainability, enhancing performance and reducing information asymmetry, thus

lowering equity capital costs. Conversely, Stakeholder Theory links firm value to non-financial ESG sustainability, similarly enhancing performance and transparency, thereby reducing capital costs.

Studies show that ESG investments correlate positively with financial performance and lower capital costs. Companies investing in ESG withstand economic shocks better, evidenced by improved performance during the COVID-19 pandemic. However, Telcos often selectively invest in ESG dimensions, impacting service quality and customer satisfaction. Failure to invest comprehensively in ESG jeopardizes Telcos' resilience against economic shocks and their ability to sustain future investments at low capital costs.

This research seeks to determine if Telcos invest adequately in both tangible assets like infrastructure and intangible assets like ESG, ensuring firm value maximization and business sustainability. Lower capital costs from transparent ESG efforts protect against economic crises, ensuring ongoing service quality and customer satisfaction.

### **3. Research Questions**

A meta-study conducted by Whelan et al. (2021) on the relationship between ESG and corporate performance using panel data analysis from 2015 to 2020 found a positive relationship between ESG and financial performance for 58 per cent of the corporates under study. The same study also found that sustainability initiatives drive better financial performance due to mediating factors such as more innovation and better risk management.

This brings us to the first research question central to the thesis: “What are the dimensions under financial sustainability and non-financial ESG sustainability that impacts firm performance, and to what extent do these dimensions affect firm performance?”

Furthermore, it is also equally important for Telcos to generate consistent retained earnings so that they can continuously invest in ESG, which would ultimately lower the cost of capital of Telcos. By providing the necessary protection against possible economic shocks caused by financial crises or viral pandemics, Telcos could add value to future earnings, hence turning investment drive forward in the same meta-study by Whelan et al. (2021), on the relationship between ESG and corporate performance, quoted data sets from during the financial crisis of 2007 – 2009 by Fernández et al. (2019), who found that German green mutual funds delivered risk-adjusted returns slightly better than their peers. With a lower cost of capital, they have achieved enhanced financial sustainability performance hence better returns for investors. This also shows that investing in ESG has provided downside protection during the COVID-19 pandemic.

This brings us to the second research question central to the thesis: “Does improvement in financial and non-financial ESG sustainability performance lead to reduced cost of capital for future investment and provide downside protection against possible economic shocks?”

The third research question central to the thesis is, “Whether service quality mediate the effect of the relationship between ESG dimensions and firm performance? This question arises from literature reviews which studied the effect of mediators and moderators such as innovation, risk, competitive advantage, operational efficiency and stakeholder relation in the relationship between ESG dimension and financial performance. However, none so far has reviewed service quality's mediating impact on the

correlation between ESG dimension and financial performance. Hence, this empirical study is to find out whether the positive or negative influences service quality has in the relationship between ESG dimension and financial performance. It is hoped the study will add to the body of knowledge in ESG literature.

### **3.1. Research Objectives**

Based on the research questions set out in 1.3, the author has formulated the relevant research objectives as follows:

- i. Understanding the dimensions under financial and non-financial ESG sustainability performance that contributes positively to firm performance while reducing the cost of capital during the pandemic. The methodology potentially involves interviews with corporate personalities from private and public sectors to determine whether the theoretical model is still applicable or if some new elements may come into play in the existing equation. Under Shareholder Theory, the current dimensions are growth opportunities, research activity and operational efficiency, while under Stakeholder Theory, the dimensions are environment, society and governance.
- ii. Analysing whether improvement in financial and non-financial ESG sustainability performance led to reduced cost of capital for future investment and provides downside protection against possible economic crisis.
- iii. Determining whether customer satisfaction is impacted due to service quality disruption caused by the pandemic.

### **3.2. Scope of Study**

The landscape will be a Malaysian one. In the Main Market of Bursa Malaysia, there are ESG-rated stocks under EMAS Index comprising various sectors such as manufacturing, healthcare, telecommunication & media, etc. Out of 240 stocks under EMAS Index, Bursa Malaysia and FTSE Russell conducted a further assessment of the ESG activities of the companies based on ESG criteria and, if qualified, will be shortlisted into another index called FTSE4GOOD. This index measures the performance of publicly listed companies demonstrating strong ESG practices, which will be monitored and assessed on a half-yearly basis to ensure the companies meet ESG criteria.

### **3.3. Significance of Study**

This study is significant because it addresses a gap in existing research on ESG issues during the pandemic in Malaysia, particularly in the telecommunications industry. Previous studies have focused on the relationship between ESG and financial performance in contexts outside Malaysia. This research zeroes in on the Malaysian telecom sector to determine if ESG dimensions positively correlate with financial performance and provide protection against economic shocks during the pandemic.

The research aims to:

- i. Investigate the impact of ESG on the cost of capital.
- ii. Examine if reduced capital costs encourage further investment.

- iii. Explore whether continuous ESG investment ensures consistent service quality and customer satisfaction.

Key theoretical frameworks include Shareholder Theory, emphasizing profit maximization, and Stakeholder Theory, which considers benefits for all stakeholders. This study will contribute valuable insights into how ESG investments can drive financial performance and business sustainability, benefiting shareholders, stakeholders, and society at large.

This research provides significant knowledge for the telecommunications sector in Malaysia, particularly regarding the importance of ESG dimensions in business sustainability and financial performance. Key managerial implications include:

- i. Investors: ESG performance attracts investment by reducing capital costs and providing protection against economic shocks.
- ii. Regulators: Authorities like MCMC should develop policies that encourage ESG investment, ensuring more flexible use of funds to reduce the digital divide.
- iii. Customers: Consumers benefit from high ESG investment through improved service quality and comprehensive coverage.

## **4. Literature Review**

### **4.1. Challenges**

Time and again, most related literature in ESG (Di Marsciano Ludovico Impact, 2018; Mohamad, 2020; Mohammad & Wasiuzzaman, 2021; Whelan et al., 2021) have converged towards a positive correlation between ESG dimension and firm's financial performance. As always the case, improved financial performance would lead to the consistent generation of retained earnings which is an important consideration for companies to decide on the investment level needed for the upcoming years. With the end in mind to consistently exceed customer expectation, digitalization of all aspects of the interaction with customers become very critical to the future success of the company. Hence, investment in this regard is of utmost importance.

While ideally, that may be the case, the story on the ground may be different altogether. Some companies may be selective in how they carry out ESG dimensions in their organization. The three pillars of ESG may be approached differently as some may choose to do all pillars while others may choose a combination.

As a result of the selective approach, at best, mixed financial performance and unsustainable retained earnings lead to reduced investment. Lowered investment may have an impact on the medium to long-term investment of the company. Other than the capability of the company's future is at stake, so is the quality of service to the customers, as companies cannot invest in cutting-edge IT technologies in the digitalization space to manage and retain their customer base.

### **4.2. Review**

Clearly, the recent pandemics have taught us many lessons in so far as they gave us the breathing space needed to unlearn what has gone wrong with the processes and procedures that caused the

breakdown and re-learn new ways of doing things by being more innovative and creative to improve the performance of the company.

The stories have been reported in the print media repeatedly highlighting the frustration suffered by students to get a better internet connection to facilitate their Pengajaran dan Pembelajaran dalam Rumah (PdPR”) program as directed by the Ministry of Education as part of the Malaysian Government initiative to ensure students are not left behind and continue to get the necessary education even though schools were closed during the pandemics. It certainly cannot be denied that students in urban areas have reaped maximum benefits of PdPR due to better internet access provided by Telcos compared to those in rural areas.

The telecommunication industry must be sustainable for the benefit of the country, not just from the financial performance of Telcos but also from non-financial ESG aspects. This is where the ESG dimension comes into play in assessing whether Telcos have made the necessary and required investment in environmental, social and governance aspects to explore a complete picture in investigating the breakdown. These elements are important in their relationship with Telco’s corporate performance. Much literature has pointed to a strong correlation between ESG and corporate performance. While positive changes will enhance Telco’s capability to generate consistent retained earnings, hence continuous contribution to USP funding, negative changes would threaten the companies’ future earnings, hence not being able to contribute as much to USP funding. Higher retained earnings would result in better investment decisions in telecommunication elements, enhancing digitalization efforts to improve service quality to meet ever-increasing customer demand. Similarly, negative changes would impact investment decisions to digitize network infrastructure necessary to augment service quality to meet customer needs.

In an effort to understand the body of knowledge that has been published so far in this area, the reviews have been summarized in Table 1.

**Table 1.** Summary of Selected Literature Reviews

	Author/Year	Country	Independent Variables	Dependent Variables	Results
1)	Whelan et al. (2021)	United States	ROE, ROA & Stock Price	Corporate Performance	Positive relationship; ESG investing provides downside protection during the COVID-19 pandemic
2)	Jasni et al. (2019)	Malaysia	10 Environment factors; 15 Social factors; 31 Govn factors	ESG Score	Positive correlation; ESG practices include Env sys and monetary sustainability, Health & Safety training and Customer PDP practices and governance audit
3)	Di Marsciano Ludovico Impact (2018)	Italy	8 Environment factors; 16 Social factors; 14 Govn factors	ESG Performance	An inverse correlation was found between ESG performance and Corporate Financial Performance
4)	Galbreath (2013)	Australia	4 Environment factors; 3 Social factors; 7 Govn factors	ESG Dimensions	Positive relationship; Performance on the governance dimension improved more than environmental or social performance.
5)	Mohamad (2020)	Malaysia	ESG score, ETA, DTA, WACC, DPS, AT and SIZE.	Firm’s value of Tobin’s Q (TQ)	Significant positive relationship with WACC, DPS, AT, and SIZE. Insignificant correlation between DTA and ETA.
6)	Díaz et al. (2021)	United States	Market return, Size factor, the Value factor	Excess industry returns	Positive correlation; Environmental and Social pillars of the ESG are the key drivers of the observed patterns,
7)	Mohammad and Wasiuzzaman	Malaysia	Environmental score, Disclosure Scores, ROI and WACC	Tobin’s Q	Positive connection; control variables are included in the empirical study, i.e. growth, profitability liquidity, cashflow, debts & total assets,

(2021)					
8)	Lödf et al. (2022)	10 countries	Fin risk measures to estimate lower tail risks and lower upside potential	ESG rating	Positive correlation; stocks with higher ESG ratings have less downside risk but also possess less upside potential;
9)	Abd-Elrahman and Ahmed Kamal (2022)	Egypt	Relational Capital (Intangible Assets)	Orgal Perf & Svc Quality as a mediating factor.	Positive relationship; SQ has been proven to have a significant relationship with OP and fully mediates the relationship between RC and OP.
10)	Ng and Rezaee (2015)	United States	Economic sustainability performance and non-financial ESG sustainability perf	Cost of equity capital	Some positives (Operational factors) and some negative associations (Growth and Research factors) with the cost of capital.

### 4.3. Synthesis

From the above review, it can be synthesized that:

- i. Studies of ESG reveal consistency in terms of depicting the positive correlation between ESG dimension and financial performance. It also protects downside during the COVID-19 pandemic (Whelan et al., 2021).
- ii. Mediating factors such as more innovation and better risk management in sustainability initiatives enhanced financial performance (Whelan et al., 2021).
- iii. The rate of integration of environmental and social dimensions is faster for innovative businesses compared to traditional and production-based companies in Italy (Di Marsciano Ludovico Impact, 2018)
- iv. However, Jeremy Galbreath (2013) found that high-impact industries in Australia did not reflect more robust ESG performance relative to medium or low-impact industries except in the social dimension.
- v. Díaz et al. (2021) stated the importance of accounting for Environmental, Social and Governance factors in investment decisions, primarily environmental and social pillars of the ESG dimension.

### 4.4. Research Gap

Despite extensive research, the mediating role of service quality in the relationship between ESG dimensions and financial performance remains unexplored. This study aims to fill this gap, providing new insights into ESG's impact on financial performance and service quality in the Malaysian telecommunications sector.

### 4.5. Underpinning Theories

This study utilizes multiple theories to explore the relationship among stakeholders in embracing ESG dimensions in business transactions.

- i. Shareholder Theory: According to Eldar (2015), the primary objective is profit maximization for shareholders through engaging in Net Present Value (NPV) projects that maximize shareholder wealth. Management focuses on financial performance,

placing greater emphasis on financial sustainability rather than non-financial ESG dimensions.

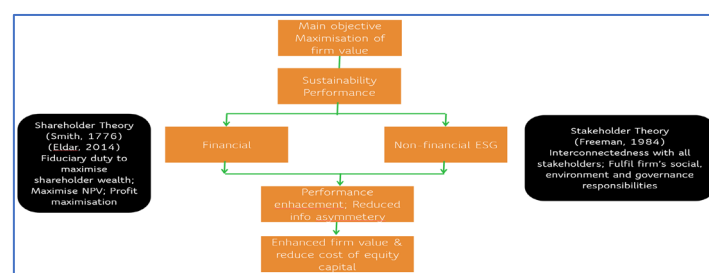
- ii. Stakeholder Theory: Freeman (1984) emphasizes the interconnected relationships between a business and its stakeholders, advocating for decisions that benefit all parties. Management considers the benefits of different stakeholders, focusing on activities that generate and maximize profits while considering ESG sustainability performance.
- iii. Legitimacy Theory: Suchman (1995) describes the social contract between an organization and society, where organizations seek legitimacy through responsible practices.
- iv. Shared Value Creation: Porter (2011) highlights the importance of policies and practices that enhance both organizational competitiveness and societal conditions.

Fusing the two theories together, there is tension in their respective relationships with firm value in the cost of capital.

- i. Shareholder Theory: Prioritizes financial performance, leading to a reduced cost of equity capital by providing high-quality accounting information that reduces uncertainty about future cash flows (Staub-Bisang, 2012).
- ii. Stakeholder Theory: Emphasizes the overall benefits of all stakeholders, promoting ESG sustainability performance which, through transparency, reduces information asymmetry and cost of capital.

While there is pressure building up between financial and ESG sustainability performance, Jensen (2001) argues that a firm cannot maximize shareholder value without considering stakeholder interests. Hence, trade-offs among conflicting interests of shareholders and other stakeholders are necessary. Despite this, there are synergies in that both theories suggest that financial sustainability performance and non-financial ESG sustainability performance are interconnected. Business sustainability involves creating shareholder value while protecting the interests of all stakeholders, ensuring long-term success and reduced capital costs.

Taken together, theoretical framework suggests that financial sustainability performance and non-financial ESG sustainability performance are interconnected and should be studied together when assessing their impacts on shareholder wealth and cost of equity. Business sustainability realizes that the primary function for any business organization is to create shareholder value in compliance with shareholder theory, protecting the interests of shareholders under shareholder theory and stakeholders under stakeholder theory as depicted by Figure 1.



**Figure 1.** Underpinning Theories



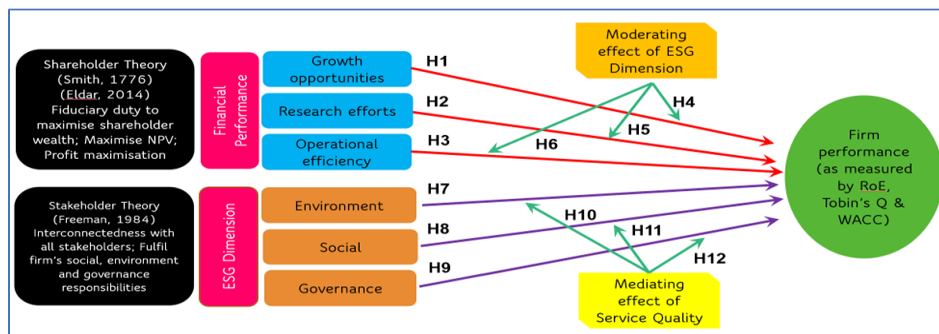
#### 4.6. Theoretical Framework

From the literature, it is an established fact that the correlation between ESG dimension and financial performance has always been positive as indicated by Whelan et al. (2021), Di Marsciano Ludovico Impact (2018), Galbreath (2013) and Mohamad (2020). When moderating variables, for instance, innovation was introduced in the relationship, it was found that there is a positive influence played by innovation in the correlation between ESG and financial performance i.e., innovation would greatly enhance ESG factors resulting in higher financial performance of the company.

#### 4.7. Conceptual Framework and Hypotheses Development

The hypotheses arising from Figure 2 are summarised below:

Hypths	Description	Hypths	Description
H1	Growth opportunities positively influences financial performance	H7	ESG dimension moderates the relationship between growth opportunities and financial performance
H2	R&D activities positively influences financial performance	H8	ESG dimension moderates the relationship between research efforts and financial performance
H3	Operational efficiency positively influences financial performance	H9	ESG dimension moderates the relationship between operational efficiency and financial performance
H4	Environment factor positively influences financial performance	H10	Service quality mediates the relationship between environment factor and financial performance
H5	Social factor positively influences financial performance	H11	Service quality mediates the relationship between social factor and financial performance
H6	Governance factor positively influences financial performance	H12	Service quality mediates the relationship between governance factor and financial performance



**Figure 2.** Conceptual Framework

#### 5. Conclusion

The purpose of this study is to ensure that there is no duplication of body of knowledge in relation to the identified research area. Based on the review, first and foremost, there is positive correlation between ESG dimension and firm's financial performance. It has been established that mediating factors such as more innovation and better risk management in sustainability initiatives have led to enhanced financial performance. Various independent, dependent and controlling variables have been used in the literatures and by summarising these variables, there seemed to be gaps that potentially shape the basis of the thesis. In so far as service quality is concerned, none has reviewed it having a mediating impact in the correlation between ESG dimension and financial performance. Given the consistency of the relationship between ESG dimensions and financial performance, this empirical study is to find out whether service

quality has the mediating effect in that relationship. A fully mediating effect of service quality would elevate the relationship between ESG dimension and financial performance to another level.

However, there are potential limitations in the proposed study in that it employs cross-sectional research design (as opposed to longitudinal study) to ascertain the impact of pandemics on firm financial performance and the samples used will be Malaysian entities in Bursa Malaysia's Telecommunication and Media sector, hence cannot be generalized to other countries.

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