FACTORS INFLUENCING CORPORATE SUSTAINABILITY PRACTICES AND REPORTING AMONG THE DEVELOPED AND EMERGING CLIMES

GOLD NUSIRAT OJUOLAPE

UNIVERSITI SAINS MALAYSIA.

2022

FACTORS INFLUENCING CORPORATE SUSTAINABILITY PRACTICES AND REPORTING AMONG THE DEVELOPED AND EMERGING CLIMES

by

GOLD NUSIRAT OJUOLAPE

Thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

September 2022

ACKNOWLEDGEMENT

I would like to express my profound gratitude to Allah SWT for giving me the opportunity and assisted me endlessly in completing this research journey. I am greatly indebted to my supervisor, Prof Fauziah Md. Taib, for her relentless support and guidance. It would not have been possible to accomplish this task without her extraordinary support. I would also like to express my sincere gratitude to all staff and members of School of Management for their valuable contribution to the success of this study. I am immensely grateful to my employer Kwara State University, Malete, Nigeria and Tertiary Education Trust Fund (TETFUND) for providing me the financial resources and privilege to undertake this study. I am equally thankful to my Ex-Vice chancellor Prof Abdulrasheed Na'allah, the Head of Department Accounting and Finance, Prof Mubaraq Sanni, and my outgone Head of Department Prof M. L Nassar for their advice, moral support, and persuasion to undertake the PhD study. I pray you all find Allah's favor in your endeavors.

I am sincerely grateful to my husband and families whom all supported me and made the realization of the journey a reality. Thank you all for the sacrifices that are immeasurable. Jazakhumullahu Khairan. My gratitude also goes to all my friends, colleagues, members of the department of Accounting and Finance, Kwara State University, Malete and other members of my family for their support and prayers.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Page

LIST OF ABBREVIATIONS

CDP	Carbon Disclosure Project
CG	Corporate Governance
CSR	Corporate Social Responsibility
ESG	Environmental, Social and Governance
GHG	Green House Gases
GMM	Generalized Method of Moment
GRI	Global Reporting Initiatives
ERM	Extended Regression Models
SPR	Sustainability Practice and Reporting
S&P Global MI	S&P Global Market Intelligence
UNFCCC	United Nations Framework Convention on Climate Change

LIST OF APPENDICES

FAKTOR-FAKTOR YANG MEMPENGARUHI AMALAN KELESTARIAN KORPORAT DAN PELAPORAN DI KALANGAN NEGARA MAJU DAN MEMBANGUN

ABSTRAK

Dalam beberapa tahun kebelakangan ini, isu pemanasan global yang merangkumi perubahan iklim kepada eksploitasi sumber semula jadi yang berlebihan telah menarik minat orang ramai dari semua lapisan masyarakat di seluruh dunia. Aktiviti antropogenik adalah merupakan antara punca utama kemerosotan alam sekitar, dengan majoritinya mempunyai kaitan secara langsung dengan aktiviti korporat. Sehubungan itu, penekanan berterusan daripada orang ramai agar syarikat menilai semula aktiviti mereka dan mengamalkan amalan kemampanan yang baik. Pihak berkuasa yang prihatin, seperti kerajaan, pengawal selia, dan pihak berkepentingan utama lain juga perlu mempunyai minat dalam memerangi pemanasan global dan isu alam sekitar yang berbahaya yang lain. Hasilnya, beberapa inisiatif telah dibangunkan, salah satunya adalah dasar penetapan harga karbon kelahiran, satu cara untuk membendung pelepasan gas rumah hijau. Walaupun, beberapa syarikat telah mula melaksanakan strategi kemampanan dalam proses pengurusan mereka, namun kadar tindak balas masih tidak menggalakkan kerana laporan menunjukkan bilangan syarikat yang mempunyai amalan kemampanan sebenar adalah jauh di bawah bilangan syarikat yang mendakwa telah mengamalkan amalan dan pelaporan mampan. Akibatnya, menjadi lebih penting untuk menyelidiki faktor-faktor yang boleh mempengaruhi firma untuk menerima amalan dan pelaporan kemampanan yang meluas di seluruh dunia. Kajian ini mengkaji faktor-faktor yang mempengaruhi tahap amalan dan pelaporan kemampanan korporat dalam kalangan negara maju dan

membangun, menggunakan sampel 368 firma sepanjang tempoh 2016-2019. Kajian ini menggunakan set data unik daripada skor kategori yang didedahkan CDP secara terbuka untuk memberikan penjelasan yang bernas untuk konteks penyelidikan. Data sekunder diperoleh daripada pelbagai sumber termasuk S&P Global MI, laporan tahunan, laporan kemampanan yang berdiri sendiri dan dokumen bank dunia. Model regresi probit pesanan panel lanjutan, probit binari dan Sistem GMM telah digunakan untuk menyediakan analisis yang mantap dan membuat inferens yang sah. Beberapa pemeriksaan sensitiviti telah dijalankan untuk mengesahkan keputusan. Penemuan mendedahkan aktivisme pelabur, tekanan kepenggunaan, persekitaran institusi dan sifat-sifat tadbir urus korporat sebagai elemen penting yang mempengaruhi tindakan korporat dan tidak bertindak. Penemuan seterusnya mendedahkan syarikat mengamalkan amalan dan pelaporan mampan yang meluas untuk menghalalkan hubungan perniagaan dengan pihak berkepentingan. Selain itu, kajian mendokumenkan bukti bahawa tadbir urus korporat yang baik boleh disimpulkan daripada ketelusan dan akauntabiliti korporat. Teori asas yang diguna pakai selaras dengan hasil penyelidikan ialah kesahihan dan teori institusi. Faktor lain yang didapati memainkan peranan penting ialah keuntungan, sensitiviti industri, saiz pasaran firma dan umur firma. Oleh itu, semua faktor yang dikenal pasti dianggap sebagai pelengkap dan boleh menjadi dalaman atau luaran kepada firma. Secara keseluruhannya, kajian ini menyumbang kepada disiplin perakaunan kemampanan dengan memberikan pandangan tentang prestasi sebenar firma dari segi kemampanan berbanding tuntutan penerimaan kemampanan mereka. Ini dimungkinkan melalui penggunaan skor CDP, sekali gus mendedahkan prestasi kemampanan firma individu yang tidak dapat ditunjukkan oleh kajian terdahulu. Selain itu, dengan menggunakan teknik pemodelan regresi probit perintah panel lanjutan, kajian itu memberikan bukti yang bernas berkenaan sejauh mana prestasi firma dari segi kemampanan. Kajian akhirnya mencadangkan kawasan untuk penyelidikan masa depan. Selain itu, dengan menggunakan teknik pemodelan regresi probit perintah panel lanjutan, kajian itu memberikan bukti yang bernas berkenaan sejauh mana prestasi firma dari segi kemampanan. Kajian itu akhirnya mencadangkan kawasan untuk penyelidikan masa depan serta memberikan beberapa implikasi untuk akademik, polisi dan peraturan.

FACTORS INFLUENCING CORPORATE SUSTAINABILITY PRACTICES AND REPORTING AMONG THE DEVELOPED AND EMERGING CLIMES

ABSTRACT

In recent years, the issue of global warming spanning from climate change to the excessive exploitation of natural resources has piqued the interest of people from all walks of life globally. Anthropogenic activities are without a doubt the primary cause of environmental degradation, with majority having direct linkage to corporate activities. Hence, triggering constant pressure from public for companies to reassess their activities and adopt sound sustainability practice. Concerned authorities, such as the government, regulators, and other key stakeholders also have their interest piqued in combating global warming and other harmful environmental issues. As a result, numerous efforts were created, one of which resulted in the carbon pricing policy, a means to curb greenhouse gases (GHG) emission. Although, some companies had begun implementing sustainability strategies into their management processes, yet response rate is still not encouraging as report showed the number of companies with actual sustainability practice is far below the number of companies that claim to have adopt sustainable practice and reporting. As a result, it becomes more imperative to delve into factors that can influence firms to embrace extensive sustainability practice and reporting in the world at large. This study examined the factors influencing the extent of corporate sustainability practice and reporting among the developed and developing nations, using a sample of 368 firms over the period 2016-2019. The study employed a unique data set from CDP publicly disclosed categorical scores to provide insightful explanations for the research context. Secondary data were sourced from multiple sources including S&P Global MI, annual reports, stand-alone sustainability reports and world bank documents. Extended panel ordered probit regression models, binary probit and System GMM were utilized to provide robust analysis and draw valid inference. Several sensitivity checks were conducted to validate the result. Findings revealed investor activism, consumerism pressure, institutional environment and corporate governance attributes as vital elements influencing corporate actions and inactions. Findings further reveal companies adopt extensive sustainable practices and reporting to legitimize business relationships with stakeholders. Besides, the study document evidence that good corporate governance can be inferred from corporate transparency and accountability. Underlying theories applicable in line with the research output are the legitimacy and institutional theories. Other factors found as playing an important role are profitability, industry sensitivity, firm market size and firm age. All the identified factors are therefore deemed complementary and could be internal or external to the firm. Overall, the study contributed to the discipline of the sustainability accounting by providing insights into the true performance of firms in terms of sustainability as against their claims of sustainability adoption. This was made possible through the application of CDP scores, thus revealing the sustainability performance of the individual firm one which prior studies could not showcase. Also, by employing extended panel ordered probit regression modelling technique, the study provided insightful evidence regarding the extent of the firm performances in terms of sustainability. The study finally suggested areas for future research as well as provided several implications for academics, policy, and regulations.

CHAPTER 1

INTRODUCTION

1.1 Background to the study

Global warming or climate change arising due to excessive concentration of greenhouse gases (GHGs) in the atmosphere has become one of the major concerns threating human existence over decades. The excessive level of GHGs concentration has caused profound changes in the biosphere and hydrosphere providing the thin layer of earth with nourishing fabric within which human societies exist. Therefore, anthropogenic greenhouse gas emissions have not only driven climate change but has also resulted in ocean acidification, increasingly threatening the viability and resilience of natural ecosystems, and the human societies (Malhi et al., 2020).

Climate scientists are warning that the world has begun to look dismal, and are urging a concerted and urgent effort at all levels to reduce GHG emissions and mitigate the detrimental effects of global warming (Costello, 2019). Some of the negative impacts of global warming which still continually threaten human existence are heat-related illness and death; injury and loss of life induced by severe storms and flooding; occurrences of vector-borne and water-borne diseases; exacerbation of cardiovascular and respiratory diseases by air pollution; and mental trauma from displacement as well as the loss of livelihoods and property (WMO, 2019).

Meanwhile, global annual GHGs is confirmed to have been increasing since the 90s (See fig 1.1) when emission level was at about 41%, yet still increasing at a very alarming rate till date (Mengpin & Johannes, 2020). The anthropogenic GHGs are primarily driven by human forces, as such companies being one of the biggest emitters have a pivotal role to play in curbing the menace posed by climate change (Hoffmann & Busch, 2008).

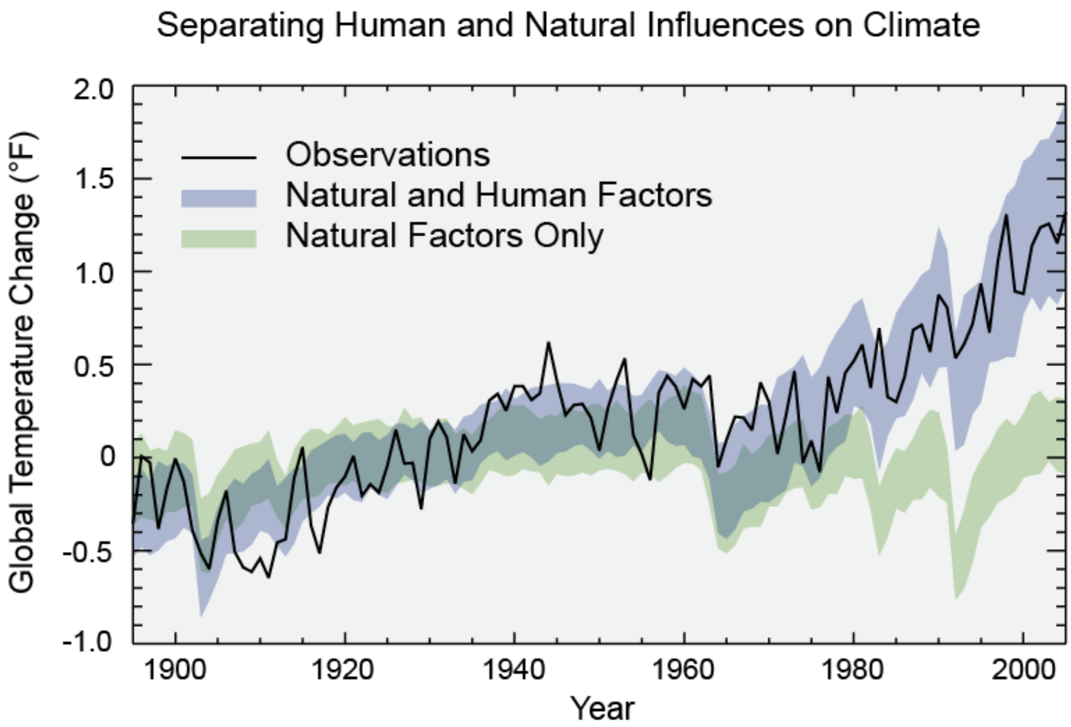

Figure 1.1 Global Annual Green House Gas Emission
Source: Adapted from (Huber & Knutti, 2012) by US Global Change Research Program (https://www.globalchange.gov/browse/multimedia/%EF%BF%BCseparating-human-and-natural-influences-climate)

As a result of the menace posed by climate change, governments, regulators, and stakeholders at large around the globe began mounting pressure on companies to adopt sustainable business practice and adhere to adopting laws and regulations that mandate sustainability reporting (Mengpin & Johannes, 2020). Furthermore, a move to tackle this menace prompted authorities across the globe to develop several initiatives like the Kyoto Protocol of the United Nations Framework Convention on Climate Change (UNFCCC) while further campaigning on the need for corporations to adopt and adhere to sustainable practices.

Sustainability refers to meeting the needs of the present generation without affecting future generations from meeting their own needs (Keeble, 1988). Sustainability practice gained momentum over decades ago and has progressed from just a trend since the publication of the Brundtland report. As argued by researchers, publication of the Brundtland report couple with stakeholders' demand and regulatory pressure creates the enthusiasm for companies to integrate sustainability policies into corporate management strategies and processes (Laskar, 2019; Middha & Shailesh Doshi, 2019).

Sustainability practice covers measures taken by the organization to mitigate climate change impact, water, and natural resource management. It also focuses on supply chain management, employee welfare, health, and safety policies as it affects company stakeholders and other organizational culture to build resilience towards achieving competitive advantage and foster innovation. While companies are pressured to adopt sustainable practice, they are likewise required to disseminate relevant information about said practices (i.e., sustainability reporting) to satisfy the demands of relevant stakeholders. Thus, one may infer that sustainability reporting covers much wider spectrum than the traditional financial reporting as it goes beyond merely reporting on firm's economic performance to include comprehensively environmental, social and governance aspects popularly referred as sustainability reporting. In line with Laskar (2019) the study posit that sustainability practice and reporting is a goal that is all about maintaining social solidarity, conserving the natural environment, and ensuring economic development in a balanced manner.

Several awareness had been made in the past by authorities on the need to embrace sustainable business practice among which is to prevent further degradation and to ensure a sustainable world. Also, researchers expanded arguments on the benefits of the adoption of sustainability practice which include been advantageous to both corporate owners and their stakeholders. Some noted that adoption of sustainability practice can foster superior external and internal decision-making, greater transparency, financial stability, and a means to improved social sustainability (Buallay, 2019b; Eccles, Krzus, & Ribot, 2015; Eccles & Saltzman, 2011; Krzus, 2011). Others stressed that investment in sustainable practice can foster investor relation; reduce natural resource usage; protect corporate image; reputation/brand name; promote employee and customer loyalty; reduce risk of lawsuits; improve acquisition and retention of skilful employees; promote reduction in the cost of capital; contribute to better performance for firms in terms of profitability; increase stock liquidity; influence stakeholders' relationship as well as assist firms to develop capabilities and competencies that will facilitate sustainable competitive advantage and more transparency (Adams, 2017; Datt, Luo, & Tang, 2019; El Ghoul, Guedhami, Kwok, & Mishra, 2011; Gardberg & Fombrun, 2006; Gaur, Vasudevan, & Gaur, 2011; Lee Brown, Guidry, & Patten, 2009; Liu, 2020). Above-mentioned points summed together is deemed critical for a firm's subsistence, growth, and long-term survival.

In view of the growing concern about the effects of climate change, corporations, as the primary economic drivers and major consumers of environmental resources Hussain, Rigoni, and Cavezzali (2018), have been under constant pressure from various stakeholders to adopt sustainable practices. However, corporate response had been dismal as recent research demonstrates, firms opt to disclose selective sustainability information while concealing other unsustainable behaviours (García-Sánchez, Hussain, Khan, & Martínez-Ferrero, 2021). This attitude on the part of corporate owners may have led to the severe effects of the Covid-19 pandemic. Furthermore, as the United Nations clearly pointed out, the world would have been better prepared to deal with the pandemic if the paradigm shift envisioned by the 2030 Agenda for Sustainable Development had been effectively embraced throughout the years (United Nations, 2021). As a result, the world is still far behind in embracing sustainable living (United Nations, 2021). This collection of arguments suggests the need for research into factors that may influence business sustainability practices and reporting in the global context.

1.2 Statement of Problem

Despite repeated calls over the years and unrelenting stakeholder pressure on businesses to embrace sustainable practices and reporting to save the earth from the deterioration caused by company operations, to limit global warming to 1.5 degrees Celsius over pre-industrial levels by the mid-century at the very least, and avert more catastrophic climate change consequences, corporate reaction has been poor and disappointing. According to reports, less than 200 firms out of over 13,000 companies' representing 64% of the world's market capitalization as of current year fully satisfied the standard of disclosing information for the core metrics deemed necessary for a credible sustainable plan set by the world leading author in terms of sustainability i.e., Carbon Disclosure Project now popularly called CDP (Jessop, Wilkes, & Howcroft, 2022). Furthermore, reports revealed merely 4,002 companies claimed they had a low-carbon transition strategy, yet only 3,521 companies had the strategy in the previous year (Jessop et al., 2022). An implication therefore is that while around 30% of all reporting firms claiming to have a sound strategy in place for a hypothetical transition to a low-carbon economy, only 1% of these firms genuinely reveal enough information to the world to be judged sufficiently on whether or not they had a good plan (Jessop et al., 2022). As a result, it's clear that businesses haven't completely embraced sustainable practices and reporting. Furthermore, the present degree of corporate responsiveness to sustainable practices and reporting may have played a big role in why the pandemic was able to wreak such havoc, affecting not just development achievements earned in previous decades but also resulting in the loss of lives and livelihoods. Indeed, the United Nations stated that the world would have been better prepared to combat the pandemic if the 2030 Agenda for Sustainable Development's paradigm shift had been effectively adopted throughout the years (United Nations, 2021). As a result, additional research into what may likely persuade companies to embrace sustainable practices and reporting in the world at large is needed as a matter of urgency, particularly to avert future catastrophic events like the continuing Covid -19 pandemic.

Meanwhile, examinations into the elements that drive business sustainability strategies have already begun. However, no agreement has emerged from the studies thus far. This is likely due to the fact that previous literatures Aksoy, Yilmaz, Tatoglu, and Basar (2020); Crifo, Escrig-Olmedo, and Mottis (2019); Janggu, Darus, Zain, and Sawani, (2014); Kilic and Kuzey (2017); Kılıç and Kuzey (2019); Naciti (2019) had only focused on corporate governance (CG) structure as the main contributory elements without proper consideration of other factors like country regulations (Baldini, Maso, Liberatore, Mazzi, & Terzani, 2018; Hahn & Kühnen, 2013), activism by investors (Flammer, Toffel, & Viswanathan, 2021), and consumerism pressure (Mahmood, Kouser, & Masud, 2019) as equally likely critical factors in driving the extent of corporate sustainability practices and reporting. It might possibly be because most of the extant research comes from industrialised nations, with only a few studies coming from developing countries. The absence of sufficient research, as well as the lack of unanimity and gaps in the literature, suggests that more extensive research is needed.

Similarly, some argument implies that, to gain corporate legitimacy and business survival, good corporate responses to sustainable practices should be encouraged. Additionally, it is claimed that business attitudes toward sustainable measures might be influenced by a need for accountability and transparency. However, actual research to back up these statements is limited. As a result, more research is required.

An in-depth analysis into each of the above claims can assist to shed light and provide understanding on what could inspire firms and contribute to improving corporate response towards sustainability practices and reporting. It can also provide insightful explanations as to why corporate response differ among firms in different world economies and reasons for the slow response. As such, it will enable for deeper understanding of the motive behind corporate involvement in sustainability practices. Therefore, may assist authorities on likely steps to take to encourage improved response.

1.3 Research Objectives and Motivation

Several clamours had been ongoing for companies (been a major contributor to the world's GHG emission) to adopt sustainability practices and report on them. While the number of companies reporting is increasing (KPMG, 2017), the response is still not encouraging as corporate disclosures are inadequate (Jessop et al., 2022). Besides, researchers are yet to reach a consensus on the likely factors that draw companies to report extensively, especially since shreds of evidence documented so far differ for the developed and emerging climes. More so, factors driving corporate response on sustainability practice could be the combined influence of internal and external forces (Banerjee, Gupta, & McIver, 2019), which could vary and may be influenced at the individual company level, due to industry attributes and/or country traits. Hence, the goal of the current study is to identify factors influencing the extent of sustainability practices and reporting by companies in different world economies using a neutral score from data tracked and disclosed by the CDP.

Meanwhile, some explanations proposed for the adoption of sustainability practices and reporting informed this study intent. First, Nazari, Herremans, and Warsame (2015) mentioned that activist investors' concern about the risk associated with potential litigation, physical damage, and business disruption fostered regulatory requirements that motivated the Securities Exchange Commission in countries (like the USA and Canada) to issue guidance on increased disclosure level, and that the institutional investors initiated the movement for more transparency on carbon disclosure via CDP. This argument points to the role and power of activist investors in driving sustainable business practices especially due to the crucial role they play in distinguishing a company's socially responsible actions (Aguilera, Williams, Conley, & Rupp, 2006), and the possibility of them taking a more unified action in the nearest future should companies continue to engage in the unsustainable practice. It is equally an indication that sustainability information has considerable decision usefulness to the institutional investors when making and evaluating investment decisions (Nazari et al., 2015). Therefore, activist investors can drive a significant influence on the extent of sustainability reporting.

Second explanation is that companies strive to be more transparent and accountable to society by reporting on the social and environmental impact of their activities when they adopt sustainability practices. In line with the submission of Kent and Monem (2008), the current study argue that the desire to be more accountable and transparent may be implied by strong corporate governance structure. Besides, as theoretically inferred, institutional theory assumes that the external environment in which a firm carry on its business consist of law and regulation, values and norms, and culture and expectations that a company must adapt to ensure sustainability.

Thirdly, in terms of business legitimacy, there are contentions that corporate sustainability reporting can provide information that legitimizes corporate's behaviour with the sole purpose of influencing stakeholders' decision and eventually society's perceptions about the company. Thus, the arguments suggesting good corporate governance structure as plausible explanations for the adoption of sustainability practices and reporting by companies (Kent & Monem, 2008).

In light of the forgoing, and with focus on investor activism, corporate governance structure, consumerism pressure, and institutional factors, this study examined in the context of developed and emerging climes, influencing factors driving the extent of corporate sustainability practices and reporting. Specifically, the study provides claims to the objectives below:

i. To examine factor(s) that influences the extent of adoption of sustainability practices and reporting by companies operating in the developed and emerging climes.
ii. To determine whether companies adopt extensive sustainability practices and reporting or otherwise to legitimize their relationship with stakeholders.
iii. To ascertain whether corporate sustainability practice and reporting is reflective of transparency and accountability to organizational stakeholders.

1.4 Research Questions

To realise the above study intent while tackling the research problems previously noted, this research draws up the following research questions.

i. What factor or combination of factors influences the extent of sustainability practices and reporting by companies operating in the developed and emerging climes?

ii. Does the extent of sustainability practice and reporting by companies indicate the firms seeking to legitimize relationships with stakeholders?

iii. Does sustainability practice and reporting by firms indicate accountability and transparency to organizational stakeholders?

1.5 Research Contribution

Because of the critical role that sustainability challenges play around the world, this research is value relevant to both policy and academics. Policymakers and corporate executives would benefit from the study's findings while keeping the core purpose of the firm, which is profit maximisation and shareholder wealth maximisation. The research will add to the enormous academic literature on sustainability challenges and corporate reporting of major companies in both developed and emerging countries. Below are some of the research's specific contributions.

First, most prior studies have relied on ESG related performance data (Baldini et al., 2018) from databases like Refinitiv (previously ASSET4 or Thomson Reuters) and KLD statistics. Several others adopt privately developed indices based on content analysis of annual reports which are often not free to errors and bias. This study contributes to the literature by employing CDP data which reflects both performance and disclosure levels of companies. CDP data is a more independent, stable, and neutral score awarded to companies requested by investors to disclose information about the extent of their sustainability practices, who are then scored in correspondence to the information provided to the CDP questionnaire. CDP data is unique because firms are not able to influence their responses due to the non-discretionary nature of the CDP questionnaire. Therefore, corporate performance reflected by their scores can assist policymakers and other regulators to make informed decisions with regards to mechanism they can develop or improve upon to encourage more companies around the globe to adopt sound sustainability practice. It will also serve as an avenue for government and authorities clamouring for corporate sustainability adoption to think through how they can expose companies to higher visibility since companies can gain legitimization via extensive reporting or disclosure. To the academic debate, the study contributes by providing better insight that can aid researchers to understand why corporate sustainability practices and reporting differ for each reporting firms, and why prior works of literature had so far produced equivocal results.

Second, most extant literatures that previously investigated corporate sustainability practice and reporting had their focus one-sided with a high majority examining mainly CG as factor influencing corporate sustainability responses. This study enhanced focus to identify combination of factors driving corporate sustainability practice and reporting for businesses operating across different sector and in different geographical locations with due consideration to country-level, firm-specific and industry-level attributes.

Third, while most prior works often employed a single theory to back their claims for corporate behaviour (e.g., Ashrafi, Walker, Magnan, Adams, & Acciaro, 2020; Dissanayake, Tilt, & Qian, 2019) despite sustainability been a complex phenomenon, this study provided explanations from the lens of multiple theories (i.e., Institutional, legitimacy, Stakeholder and Agency theories) and document robust findings with theories having direct linkage which best suits how firm respond in their sustainability strategies. Going by corporate legitimacy, this study suggests in line with prior debates that firms could likely be using sustainability practice and reporting as a legitimizing tool and not completely as a pure act of philanthropism (Deegan, 2002; Faisal, Tower, & Rusmin, 2012; Fatemi, Glaum, & Kaiser, 2018; Porter & Kramer, 2006). Hence, suggests future research agenda for the sustainability accounting discipline.

Besides, the study selected variables based on shreds of evidence provided by prior researchers on the plausible reasons for sustainability practice adoption which are presumed to be internally and externally driven depending on the region/country and industry that the firm belongs to and operates in. For instance, investor activism can be reflective of activism power and role to affect corporate sustainability decisions. The study assesses the impact of the institutional environment for the explanatory power of the country regulation quality, to shed light on the level to which companies adopt sustainability practice and report on them. In short, by analyzing firms from different industrial sectors spanning diverse countries, the study was able to annex and increase understanding of how jurisdictional settings act as a stimulus for corporate sustainability practices and reporting.

Finally, in terms of methodology, to the best of the knowledge the study is among the early research to employ the use of extended panel ordered probit regression analysis in the field of sustainability accounting (as this was recently introduced into the STATA software) to provide insightful explanations as regard the extent of firm's sustainability practices and reporting.

1.6 Significance of the Study

The current study is of value relevance to the sustainability accounting literature in the context of both developed and emerging climes since most of the prior literature concentrated on the developed countries. For instance, the U.S.A (Datt et al., 2019; Lee Brown et al., 2009; Liu, 2020; Sroufe & Gopalakrishna-Remani, 2019), Europe (Buallay, 2019a, 2019b), Australia (Bachoo, Tan, & Wilson, 2013; Bhuiyan & Nguyen, 2019) etc. The study is highly relevant as it can arouse interest among companies and in countries where sustainability practices and reporting, and other sustainability related issues are yet to be sufficiently considered.

The research is differentiated from prior studies that had focused mainly ESG performance rather than both performance and disclosure. The study sampled CDP scored companies for their level and /or extent of sustainability practices and reporting, employing the usage of a non-discretionary data set to investigate the factors driving the extent of corporate sustainability practices and reporting.

In addition, the study complements prior literatures by examining the signal that adoption and publication of sustainability conveys (Berthelot, Coulmont, & Serret, 2012; Guidry & Patten, 2010; Kuzey & Uyar, 2017) , rather than the mere integration of social and environmental reporting presented in corporate annual reports. This is especially vital because investment in sustainability practice and reporting can constitute a signal for investors (Berthelot et al., 2012) and the adoption and presentation of sustainability reports requires unrelenting effort as well as financial and human resource commitments than simply disclosing information in annual reports (Kuzey & Uyar, 2017).

1.7 Organization of Chapters

This thesis is organized into five chapters. Chapter one begins with the background to the study, statement of problem, research objectives and motivation, and research questions. It also highlights the research contribution and significance of the study followed by the organization of the chapters.

Chapter two centres on literature review on sustainability practice and reporting. It started by providing conceptual explanations to related concepts that will assist readers to understand peculiarities of the study. For instance, the study provide explanation regarding the UNFCCC Kyoto Protocol; history and evolution of sustainability practice and reporting; Global Reporting Initiative (GRI) and Carbon Disclosure Project (CDP). This study discussed the importance, elements and challenges of sustainability practice and reporting, then the study talked about business strategy concept. The next sub-section focused on theoretical explanations relating to sustainability practice and reporting. This study concluded the chapter by providing explanations of prior empirical findings for each of the study variables.

Chapter three is on the research methods employed for the study. It started with introduction, next the study gave description of the study population and sample. Next gave an overview of CDP scores. This is followed by detailed explanation of the sample and sampling technique. Next discussed the technique for data collection. This is then followed by detailed explanation pertaining the statistical models used for data analysis. The chapter concluded with measurement of variables used for the study.

Chapter four is on data analysis, results presentation, and findings. Here, the study had three sub-sections with each sub-section providing detailed analysis and result, and findings pertaining each of the research questions earlier noted.

Finally, chapter five concludes the research by discussing and synthesizing the findings of previous chapter. It also discussed the major implications and recommendations. Further, it provides the theoretical, practical and policy contributions. Lastly, it discusses the research limitations and suggestions for future research ending with the conclusion.

CHAPTER 2

LITERATURE REVIEW ON SUSTAINABILITY PRACTICES AND REPORTING

2.1 Conceptual Explanations

2.1.1 UNFCCC Kyoto Protocol and Paris Agreement

United Nations Framework Convention on Climate Change (UNFCCC) is an initiative of the United Nations aimed at stabilizing greenhouse gases (GHGs) concentration in the global atmosphere to a sustainable level that can help prevent further damage to human well-being. In 1997 at a conference held in Kyoto (Japan), they ratified a new protocol named the "Kyoto Protocol", one which served as a first and a legally binding obligations for limits and reductions of GHGs. It however became enforced in 2005 with an applicability period set for the years 2008 to 2012 for the first phase and 2013 to 2020 for the second phase. This protocol is set up in a manner that focused on the industrialized nations been the major emitters of GHGs and as such requiring them to cut their GHG emissions through ceasing adequate measures that can aid mitigate global emissions. In compliance with the requirements of the protocol, most of the industrialized nations subsequently pledged to reduce their annual $C0_2$ emissions by an average of 5.2% by the year 2012 (Gregor, 2016), a target reduction representing about 29% of the world's total greenhouse gas emissions.

By the 21st Conference of the Parties (COP 21) to the UNFCCC held in December 2015 in Paris, a new initiative signed birth the “Paris Agreement”. This new initiative provides a framework for global actions to address climate change in the period after 2020 with an objective to maintaining the increase in global temperatures well below 2^{o}Celsius above pre-industrial levels, whilst making efforts to limit the increase to 1.5 degrees (Leggett, 2020).

Among the core scope covered by the Paris agreement are adaptation to climate change, financial aid, technology transfer and capacity building for undeveloped countries (Gregor, 2016). Furthermore, they intend to guarantee that global greenhouse gas emissions peak as soon as feasible, and to balance greenhouse gas emissions and removals in the second part of the century.

While the Kyoto Protocol only targeted the developed industrialized nations to specific reduction targets, the Paris Agreement to meet their goals and report on progress, took a step further and required all nations to produce Nationally Determined Contributions (NDCs). They therefore require their signatories to submit revised NDCs every five years, one which is anticipated to be more ambitious than prior NDCs, so as to maintain a consistent level of ambition over time. With the uptake of Paris Agreement paved way for the developed nations to assist emerging climes in their efforts to combat GHGs emissions and creates a framework for monitoring and reporting countries' climate goals transparently.

Ever since introduction, the initiatives gained momentum with more signatories but have been equally faced with implementation challenges as most emerging nations Intended Nationally Determined Contributions (INDCs) are indicating that their climate actions are conditional on access to finance and technology (Gregor, 2016). Noteworthy however is that the Paris Agreement paved way for countries to deliver on their NDCs through a number of domestic interventions including implementing public policies and attracting private investments in low-carbon solutions (Zakir & Webb, 2019). Likewise, they opened-up enormous opportunities for offset projects and carbon pricing initiatives tailored to national requirements, with expectation for market participants to navigate potentially different systems across countries (Zakir & Webb, 2019).

2.1.2 Carbon Pricing Initiatives

Carbon pricing initiatives is a scheme that attach a cost to GHGs that is been emitted into the atmosphere, thereby providing an economic incentive to discourage more pollution or rather limit the level of emission. The initiatives are measures put in place to help jurisdictions reach more ambitious regional or national climate goals. As a matter of fact, the momentum is growing as nations are now paying more attention to GHGs concentration in the atmosphere due to carbon pollution. One of popular measure employed is by putting a price on carbon which nation believe would help drive down emissions and encourage investment into cleaner options.

What then is 'Carbon Pricing' since several paths exist through which governments can employ to put a price on carbon. Zakir and Webb (2019) of the Natures Conservancy defines carbon pricing as a way of assigning a cost to the right to emit carbon, therefore encouraging actors to respond to the risks of climate change. The world Bank Group (2021) on the other hand in their report "State and Trends of Carbon Pricing" produce annually noted that a price on carbon helps shift the burden for the damage back to those who are responsible for it, and who can reduce it. Therefore, instead of dictating who should reduce emissions where and how, a carbon price provides an economic signal to the polluters to decide for themselves whether to discontinue their polluting activity, reduce emissions, or continue polluting and consequently pay for it.

Numerous carbon pricing initiatives exist at either national, regional, or sub-national levels but they all narrow down to the most popular two which are Carbon Tax and Emission Trading Scheme (ETS) sometimes referred to as cap-and-trade system. Carbon tax directly sets a price on carbon by defining a tax rate on greenhouse gas emissions or on the carbon content of fossil fuels while ETS caps the total level of greenhouse gas emissions and allows those industries with low emissions to sell their extra allowances to larger emitters (The world bank, 2020). The emission reduction outcome of a carbon tax is generally not pre-defined except for the carbon price. However, an ETS by its function of creating supply and demand for emissions allowances tend to establish a market price for greenhouse gas emissions as a result of which the cap will ensure that the required emission reductions take place to keep the emitters (in aggregate) within their pre-allocated carbon budget (The world bank, 2020).

According to the CEO of International finance corporation Philippe Le Houérou "Imposing a price on carbon sends a financial signal to investors that low-carbon investments are valuable today and will be even more valuable in the future". Therefore, carbon pricing initiatives in a nutshell are argued as a cost-effective policy tool due to their ability to lower the costs of reducing carbon emissions, through decentralizing decisions on where it is most efficient to reduce emissions from government to business and stimulating innovation by providing an ongoing incentive to cut carbon (Zakir & Webb, 2019). Besides, carbon price also stimulates clean technology and market innovation, fuelling new, low-carbon drivers of economic growth (Zakir & Webb, 2019).

Carbon pricing initiatives, in summary, reduce carbon emissions by placing a price on carbon emissions, especially those of the business sector, which account for more than half of global carbon emissions (Rahman, 2018). Hence, the strategy helps convert societal concern for environment protection into economic action. For instance, since countries started implementing the initiative, organizations had begun considering renewable energy sources instead of fossil fuels (Rahman, 2018). Besides, it acts as either a direct or indirect stimulus for companies to limit their emissions. Currently, there are about 61 carbon pricing initiatives in place or scheduled for implementation, consisting of 31 ETSs and 30 carbon taxes in 46 national and 32 subnational jurisdictions (The World Bank Group, 2021) with some countries having both. See table 2.1 for a list of the countries and their carbon pricing initiative.

Table 2.1 Countries/Jurisdictions with their Carbon Pricing Initiatives

Carbon Pricing Initiative	Countries
Carbon Tax	Alberta, Argentina, British Columbia (BC), Chile, Colombia, Denmark, Estonia, Finland, France, Iceland, Ireland, Japan, Latvia, Liechtenstein, Mexico, New Brunswick, Newfoundland and Labrador, Northwest Territories, Norway, Poland, Portugal, Prince Edward Island, Singapore, Slovenia, South Africa, Spain, Sweden, Switzerland, and Ukraine.
Emission Trading Scheme (ETS)	Alberta, Australia, British Columbia (BC), California, Canada, China, European Union (EU), Germany, Kazakhstan, Korea, Mexico, New Zealand, Newfoundland and Labrador, Nova Scotia, Ontario, Québec, Saitama, Saskatchewan, Switzerland, Tokyo, United Kingdom (UK), US States comprising (Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont), Virginia; and Washington DC.

2.1.3 History and Evolution of Sustainability Practice and Reporting

Sustainability is a concept that has been in existence for decades but gained wide recognition following the publication of the Brundtland report, of the United Nations World Commission on Environment and Development in 1987. The report described sustainable development as meeting “the needs of the present generation without compromising the ability of future generations to meet their own needs” (Keeble, 1988). The concept gained more popularity following the United Nations Transformation Agenda set for achievement by the year 2030 (UN, 2015).

Back in the 70s, companies traditionally disclose social audit and social balance sheet that is often characterized with financial reports focusing on environmental impacts and key areas of interest to major internal stakeholders; and by the 80s, they began disclosing social and environmental data that are prepared based on information sourced from company annual reports. In about a decade after, companies began preparing environmental reports in response to the implementation of environmental management systems while also preparing financial environmental reports based on the principles guiding environmental aspects. However, since the year 2000 till date, companies realize disclosing social and environmental reports with a focus on economic, social, and environmental aspects is fundamental since they affect both internal and external stakeholders (Ortas & Moneva, 2011).

Furthermore, traditional financial reporting had been noted as having its focus only on building shareholder value and increasing profitability but fail to comply with the principles established by the triple bottom line approach (Henriques & Richardson, 2004), suggesting its inability to satisfy the different needs of several stakeholders. Therefore, corporations need to re-strategize their reporting systems and embrace reporting in line with global best practices.

Sustainability practice gained further momentum when stakeholders such as investors, consumers, creditors and the general public became increasingly aware of the damages caused to the environment by corporate activities (Manita, Bruna, Dang, &

Houanti, 2018). They began mounting pressure on companies to adopt sustainable business practices and report accordingly. Organizations, on the other hand, are forced to adopt the technique owing to their continual search for long-term value impacts and their desire to gain a competitive edge over competitors (Garg, 2015; Ortas & Moneva, 2011). In addition, a growing number of companies are investing resources to educate interested parties about their sustainability efforts. This indicates that sustainability has grown into a marketing strategy to the point that businesses increasingly promote green efforts to gain public approval.

Apart from stakeholder pressure, since the stock market has recognised the enormity of the impact that a transition to a low-carbon global economy has on a company's competitiveness and long-term valuation (Goldman Sachs Sustain, 2009), they began rewarding firms that are ahead of the curve on climate change, while assigning greater risk to those who are trailing behind (Kolk, Levy, & Pinkse, 2008). Firms, on the other hand, have realised that climate change might be an opportunity rather than a threat (Margolick & Russell, 2001). As a result, the study conclude that, as Kuzey and Uyar (2017) argue, the popularity of sustainability practise and reporting grew as a result of the evolution of environmental and corporate social responsibility reports, the demand for sustainable business practises grew in tandem with public awareness of environmental concerns.

Corporate sustainability practice and reporting can be defined as a situation in which a company adopts practices that drive long-term and future sustaining activities that benefit all, and discloses relevant information about the firm's economic, environmental, and social aspects to concerned stakeholders, revealing how they impact the environment.

Several phrases are often used interchangeably to coin sustainability practice and reporting, some of which include environmental and social reporting, corporate social responsibility (CSR) reporting, sustainability accounting, ethical accounting, triple bottom line reporting, non-financial reporting, corporate sustainability, corporate citizenship, corporate responsibility reporting, integrated reporting, and sustainable entrepreneurship (Dissanayake et al., 2019; Ioannou & Serafeim, 2012; Loh, Thomas, & Wang, 2017; Skouloudis, Jones, Malesios, & Evangelinos, 2014).

In this study, the term sustainability practice and reporting refer to all aspects of corporate adoption and reporting of information on environmental, social, and economic-related issues. In short, sustainability practice and reporting for the purpose of this study cover company activities relating to efforts to combat climate change effect, building environmental resilience and environmentally friendly products and services, enhanced corporate governance practices while disclosing relevant and sufficient information with which stakeholders can make informed decisions.

Sustainability being a broad phenomenon (Gorun & Birãu, 2018) can be said to cover mainly three dimensions namely: environmental, social and economic (Ismail & Latiff, 2019) aspects of the business activities. The dimensions are important when organizations aim to adopt sustainable practices since they yield a social balance that gives room to a system of reporting which discloses detailed information on all aspects of a corporation's activities, and their impacts through economic figures, social and environmental concerns presented in the traditional balance sheet, oftentimes interpreted in a variety of forms (Ortas & Moneva, 2011). However, stakeholder groups may view the sustainability aspect differently depending on their needs and orientation. Hence, organizations need strive for an equilibrium between the different perspectives of stakeholders on corporate sustainability by seeing to the stakeholder saliency (Mitchell, Agle, & Wood, 1997; Rudyanto & Siregar, 2018).

Meanwhile, the global corporate world are yet to fully recognise and embrace sustainable practice and reporting as it has been mainly voluntary until recently, when certain countries began to move towards mandated standards (Datt et al., 2019). The difficulty in comparing sustainability reports; the large initial capital investment that often compel companies to change their business processes and rebrand their product, thereby sparking reluctance from corporate managers who are unsure whether enactment of sustainability practice and reporting is worthwhile; and the lack of general recognition are some of the justifications offered for the lack of widespread acceptance (Farooq, 2015).

The rising global demand for socially responsible investments, as well as pressure from capital providers and other stakeholders, could help drive companies to become more accountable on sustainability issues (Braam, Uit De Weerd, Hauck, & Huijbregts, 2016; Kuzey & Uyar, 2017). More specifically, stakeholder pressures, such as public concern, media interest and advocacy, institutional and regulatory forces, consumer and industrial pressures, reputational concerns, and other perceived market advantages on organisations, may promote extensive acceptance (Sampong, Song, Boahene, & Wadie, 2018).

Several national and international standards have been created to assure rigorous adherence to global best practises and encourage corporate adoption of sustainable practices globally. Among the most well-known initiatives/standard-setters are Global Reporting Initiative (GRI), Carbon Disclosure Project (CDP), Dow Jones Sustainability Index (DJSI), Global Initiative for Sustainability Ratings (GISR), International Integrated Reporting Council (IIRC), United Nations Global Compact (UNGC) and the Sustainability Accounting Standards Board (SASB). The initiatives brought sustainability