



NEAR EAST UNIVERSITY
INSTITUTE OF GRADUATE STUDIES
DEPARTMENT OF BANKING AND ACCOUNTING

DEVELOPMENT OF ACCOUNTING AND REPORTING
IN COMMERCIAL ORGANIZATIONS IN THE
CONTEXT OF SUSTAINABLE ECONOMIC DEVELOPMENT

MSc. THESIS

Esther Asukwo Uye

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UYE**

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**Nicosia
JUNE, 2023**

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We certify that we have read the thesis submitted by **Esther Asukwo Uye** titled **Development of accounting and reporting in commercial organizations in the context of sustainable economic development** and that in our combined opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Educational Sciences.

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Declaration

I hereby declare that all information, documents, analysis and results in this thesis have been collected and presented according to the academic rules and ethical guidelines of Institute of Graduate Studies, Near East University. I also declare that as required by these rules and conduct, I have fully cited and referenced information and data that are not original to this study.

Esther Asukwo Uye

...../...../.....

Day/Month/Year

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Esther Asukwo Uye

Abstract

Development of accounting and reporting in commercial organizations In the context of sustainable economic development

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This research investigates trade organizations' accounting in the context of sustainable economic growth using analysis (from 2002 to 2021) based on data from the World Bank and Federal Reserve Economic Data, the Global Green Growth Institute, and the International Monetary Fund. and looked into the report's development. This contains the Dickey-Fuller GLS Unit Root Test and the expanded Philip Peron's Unit Root Test. The publication employed his Johansen Co-Integration Test test of Panel Generalized Method of Moments and residual ties to explore for long-term correlations between the variables under investigation. Numerous econometric techniques, including the Granger causality test, serial correlation LM, heteroskedasticity test, CUSUMsq for data stability, and ADF model for analysis, have been used to analyze long-term associations. Industry organizations are incorporating environmental, social, and governance (ESG) considerations into their decision-making in order to achieve sustainable economic development, and there is a strong association between financial performance data and the Kuznets curve is significantly involves a procedure. Companies may provide their stakeholders with a more thorough picture of their performance and the effects of their operations on the environment and society by including ESG considerations into their accounting and reporting methods. And since developing economies are recognized for their brisk economic growth, high population growth, political unpredictability, slow economic development, cultural variety, entrepreneurship, and abundance of resources, this association indicates more financial growth. It is supported by the requirement for a track record.

Keywords: Development, accounting, reporting, commercial organizations, sustainable economic development, financial performance.

OZET**Development of accounting and reporting in commercial organizations****In the context of sustainable economic development****Esther Asukwo Uye****MSc, Department of Banking and Accounting****June, 2023, 161pages**

Bu araştırma, Dünya Bankası ve Federal Rezerv Ekonomik Verileri, Küresel Yeşil Büyüme Enstitüsü ve Uluslararası Para Fonu'ndan alınan verilere dayalı olarak (2002'den 2021'e kadar) analiz kullanarak ticari kuruluşların muhasebesini sürdürülebilir ekonomik büyüme bağlamında incelemektedir. ve raporun gelişimini inceledi. Bu, Dickey-Fuller GLS Birim Kök Testini ve genişletilmiş Philip Peron'un Birim Kök Testini içerir. Yayın, araştırılan değişkenler arasındaki uzun vadeli korelasyonları araştırmak için Panel Genelleştirilmiş Momentler Yöntemi ve artık bağların Johansen Eş-Bütünleşme Testi testini kullandı. Uzun vadeli ilişkileri analiz etmek için Granger nedensellik testi, seri korelasyon LM, heteroskedastisite testi, veri kararlılığı için CUSUMsq ve analiz için ADF modeli dahil olmak üzere çok sayıda ekonometrik teknik kullanılmıştır. Endüstri kuruluşları, sürdürülebilir ekonomik kalkınmayı sağlamak için karar alma süreçlerine çevresel, sosyal ve yönetim (ESG) hususlarını dahil ediyor ve finansal performans verileri ile Kuznets eğrisi arasında güçlü bir ilişki var ve önemli ölçüde bir prosedür içeriyor. Şirketler, muhasebe ve raporlama yöntemlerine ÇSY hususlarını dahil ederek paydaşlarına performanslarının ve faaliyetlerinin çevre ve toplum üzerindeki etkilerinin daha kapsamlı bir resmini sağlayabilir. Gelişmekte olan ekonomiler, hızlı ekonomik büyümeleri, yüksek nüfus artışları, siyasi öngörülemezlikleri, yavaş ekonomik gelişmeleri, kültürel çeşitlilikleri, girişimcilikleri ve kaynak bollukları ile tanıdığından, bu ilişki daha fazla finansal büyümeye işaret ediyor. Bir geçmiş performans kaydı gerekliliği ile desteklenir.

Anahtar Kelimeler: Kalkınma, muhasebe, raporlama, ticari kuruluşlar, sürdürülebilir ekonomik, kalkınma, finansal performans.

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LIST OF ABBREVIATIONS

ADF	Augmented Dickey Fuller
CAPM	Capital Asset Pricing Model
CO2	Carbon Dioxide
ECM	Error Correction Model
FP	Financial Performance
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GG	Green growth
GMM	Generalized Method of Moments
GNP	Gross National Product
GRI	Global Reporting Initiative
HC	Human Capital
HDI	Human Development Index
IIRC	International Integrated Reporting Council
PP	Philips-Peron
SASB	Sustainability Accounting Standards Board
SCM	Supply Chain Management
SDGs	Sustainable Development Goals
TVM	Time Value of Money
T	Trade
VIF	Variance Inflation Factor.
WDI	World Data Indicator

CHAPTER I

1.1 Introduction

To guarantee sustainable economic growth, trading businesses must strengthen their accounting and reporting practices. Companies are increasingly expected to report their social and environmental effect in addition to their financial success as they become more cognizant of their role in enhancing society and the environment. Investors, consumers, regulators, and civil society organizations are just a few of the stakeholders that are pushing for more corporate responsibility and transparency. Tasks around the house are a common aspect of life. Knowing how much money was brought in and spent is crucial since it is a finite and valuable resource. With the aid of your bank account and earnings, you can keep track of your profits and spending. In order for a business to be lucrative and long-lasting, it also needs accountants and tax professionals to monitor cash flow and develop estimates.

Commercial firms are implementing sustainability accounting standards and integrated reporting frameworks, which offer guidelines on how to evaluate and report non-financial impacts in a uniform and comparable way, in order to fulfil this need. Here I am. This gives stakeholders a more comprehensive understanding of their effect and enables them to make more educated judgments regarding the performance of diverse businesses.

Our grasp of accounting has been enhanced by utilizing new conceptual problems and methodologies, which have been most significant on the Accounting, Organizations, and Society pages since the 1970s. By looking at potential connections between accounting and the literature on sustainable development, this essay makes a tiny attempt to add to that narrative. The topic of sustainable development has not gone unmentioned in accounting literature 1. In order to represent its theoretical and applied interest in organizational accounting, including its worldwide social and environmental elements, Gray (2002) has referred to itself during the past ten years as "sustainable development accounting". started to worry about issues that went beyond prior interactions with local stakeholders and the current organizational setting (Gray, 2010; Hopwood et al., 2010; Schaltegger et al., 2006; Unerman et al., 2007). It has not been simple to build accounting practice in this area, nevertheless.

When measuring performance in this context, accounting and reporting take into consideration not just important financial data but also social and environmental

elements. This tactic aids businesses in understanding their influence and creating sustainable economic growth by increasing reputation and building trust among stakeholders. In order to create a more sustainable and just economic system, trade businesses must enhance their accounting and reporting practices. The advancement of accounting and reporting in corporate organizations is taking on more significance in the context of sustainable economic growth. The technique of fostering economic growth while taking into consideration social and environmental issues is known as sustainable economic development. According to Gray and Milne (2004), there is a dearth of trustworthy reporting on sustainable development in real-world settings, and scholars find it challenging to define the word in institutional contexts. I'm struggling right now. He concentrates especially on two of his issues. First, we examined external reporting, often known as reporting on sustainable development, and discovered that this category of reporting had nothing to do with it (Gray, 2010). For this reason, it is important to disregard these accounts as having no bearing on the organizational realities at hand. At best, they offer a variety of perspectives on sustainable development that may be used to make judgements. Some believe it to be unbreakable. This viewpoint is supported by a study of the changing corporate narrative of a sustainable future (see z, 2007).

The paradigm shift in this study pool is appealing because it refutes assertions made in previous research that business is led by sustainable development ideals. Sustainable development is seen by the general public as a company strategy that aims to balance the needs of the economy and the environment. There are significant issues with sustaining natural ecosystems and ecological living conditions as a result of societal and industrial expansion. The issue of what businesses, managers, and regulators can do now and in the future to save the environment is brought up by this. In this type of environmental monitoring, techniques for measuring and documenting adverse environmental effects are crucial. Attempts to think about sustainability, in particular, in my opinion, undervalue the idea of sustainability and place too much focus on accounting. The same issue is made by Gray (2010, p. 47), who claims that when attempting to account for sustainability, "standard accounting weights no longer apply." To reach its full potential, we think the discipline of sustainable development accounting has to be related to the larger conversation about equitable growth. Accept and suggest. More crucial are effective and pertinent research methodologies.

Evaluate the role of stakeholders in shaping sustainable accounting and reporting practices: This objective aims to examine the influence of different stakeholders, such as regulators, investors, customers, employees, and civil society, in shaping the development and implementation of sustainable accounting and reporting practices in commercial organizations. It may involve conducting stakeholder analyses, examining regulatory frameworks, or analysing corporate governance structures to understand how stakeholders engage with organizations and influence their accounting and reporting practices. The objective may also explore the motivations, expectations, and challenges faced by different stakeholders in promoting sustainability through accounting and reporting. Examining the relationship between retailers' financial performance and policies for reporting on sustainability—as well as the supportive function that ESG disclosure plays in this relationship—is the goal. The objective is to evaluate the efficacy of sustainability reporting techniques, such as the publication of information on the financial performance of trade organizations related to environmental, social, and governance (ESG) factors. Additionally, this aim investigates how the amount of ESG disclosure affects its relevance. To accomplish this goal in this study, a mixed method approach integrating quantitative and qualitative data collecting and analysis techniques can be used. For instance, regression analysis was employed in this research to examine the relationship between monetary success, ESG disclosure, and reporting on sustainability. This was accomplished by gathering information on financial and sustainability reporting from a sample of for-profit businesses. In order to understand more about the motivations, difficulties, and advantages of establishing a sustainability reporting approach, the research also conducts interviews with executives and stakeholders. The objective of this study is to further the creation of accounting and reporting guidelines that support steady economic growth. The findings of this study will help industry groups, standard-setters, and decision-makers understand the advantages and difficulties of implementing sustainability reporting techniques as well as how these practices might promote sustainable economic growth offer direction. Companies may comprehend the connection between sustainability reporting and financial success by giving more specific information about their ESG policies. Researchers were able to gather and examine financial and sustainability reporting data from a sample of merchants from various industries and regions in order to evaluate this hypothesis. Then, linkages between sustainability reporting, financial performance, and ESG disclosure may be

investigated using statistical methodologies. The findings will assist in developing accounting and reporting standards that promote sustainable economic growth as well as aid trade organizations in understanding the advantages and difficulties of implementing sustainability reporting methodology. The goal is to investigate how accounting and reporting might help promote long-term economic development. This study's objective is to: It describes the challenges and problems that businesses have while developing and putting into practice sustainable accounting and reporting systems. Examine the contribution of present accounting and reporting practices to long-term economic expansion.

Think about the ways that accounting and reporting may promote creativity and ethical company practices. How to set up best practices in corporate organizations for accounting and reporting on sustainability concerns. Examine how accounting and reporting affect transparency, stakeholder involvement, and accountability. By addressing these research goals, this study will contribute to the development of a more sustainable business environment where accounting and reporting processes are employed as instruments to promote sustainable economic growth and as inputs into decision-making. help. This research's overarching objective is to support firms in identifying and putting into place effective accounting and reporting processes that support long-term corporate success and sustainable economic growth. Assess the current practices of accounting and reporting in commercial organizations: This objective involves conducting a comprehensive review and analysis of the existing accounting and reporting practices in commercial organizations, with a specific focus on how sustainability considerations are integrated into financial and non-financial reporting. This may involve examining the types of sustainability information disclosed, the measurement and valuation methods used, the reporting frameworks followed, and the level of transparency and accountability in reporting practices. Identify the gaps, challenges, and opportunities in sustainable accounting and reporting: This objective aims to identify the gaps and challenges that commercial organizations face in developing and implementing sustainable accounting and reporting practices. It may involve conducting interviews, surveys, or case studies to gather data on the barriers and challenges faced by organizations in integrating sustainability into their accounting and reporting processes. Additionally, this objective may explore the opportunities that exist for organizations to improve their sustainable accounting and reporting practices, such as leveraging technology,

adopting innovative reporting frameworks, or engaging in collaborative initiatives. Examine the relationship between sustainable accounting and reporting and organizational performance: This objective involves exploring the potential impact of sustainable accounting and reporting practices on the financial and non-financial performance of commercial organizations. This may include analyzing empirical data or conducting statistical analyses to assess the relationship between sustainability performance indicators, financial performance measures, and market outcomes. The objective may also involve investigating how organizations use sustainability information for decision-making, resource allocation, and risk management, and how it impacts their overall performance and competitiveness.

1.2 Background of the study

Incorporating financial, cultural, and lifestyle factors into company strategy is what this field of study looks at as a way to promote sustainable economic success. As more people become aware of how business operations influence the environment and society and that sustainable development is crucial to long-term economic growth, this sort of study is growing in popularity. Please make sure it's required. Accounting and reporting are crucial business tools for gauging sustainability performance, communicating it, and seeing chances for creative thinking and problem-solving. The Sustainable Development Goals (SDGs) of the United Nations (UN) are commonly regarded as serving as the development roadmap for the world until 2030. They were approved in the New York 2015 United Nations Summit. There are 169 distinct indicators related to the 17 objectives. The SDGs urge all national governments, corporations, and individuals to do more to combat issues including pollution, starvation, injustice, and global warming. The Sustainable Development Goals (SDGs), in contrast to the Millennium Development Goals, aim to incorporate these challenges into corporate objectives in order to boost corporate involvement, innovation, and financial value in addressing these issues. Here I am with a goal. In particular, a resource pool of 1.5–4% of global GDP must be established in order to achieve the SDGs. He emphasizes the significance of business participation in government initiatives to support sustainable development. Business executives view the SDGs as a fresh chance to act. According to the United Nations (2016), 71% of businesses have already incorporated the SDGs into their everyday operations, and 89% of CEOs agree that the industry would be significantly impacted by sustainable

development activities (PwC, 2015). High-quality corporate reporting, according to Intergovernmental Group of Experts on International Trade of UNCTAD Accounting and Reporting Standards (ISAR), is essential to guaranteeing financial stability, sustainable development in general, and the accomplishment of the SDGs in particular. regarded as significant. acknowledged by the 32nd Congress of Accountants and had a significant impact on its planning. Follow, evaluate, and report on the SDG development of your business. From an entrepreneurial standpoint, In their capacity as mentors and interpreters tripled bottom line notion. Accountants will save the earth, claims Bakker (2012) of the Global Forum for Business and Sustainable Development. Reducing prejudice, identifying moral risks, building accounting systems and trust, and giving guidelines for sustainability accounting, reporting, and assurance are all parts of the auditor's involvement in new business models.

Organizations consider it challenging to evaluate performance, and stakeholders find it challenging to compare and rank sustainability reports due to the lack of a standardized framework for measuring and reporting sustainability performance. Financial decision-making does not completely include sustainable practices. Many businesses still view sustainability as a non-financial concern, which makes it difficult for them to include sustainability considerations into their financial decision-making procedures. insufficient knowledge and awareness Many firms might not fully comprehend the value of sustainable economic growth or how accounting and reporting contribute to it. This misinformation may impede the advancement of more environmentally friendly techniques. Poor reporting and data: Organizations could lack the information and tools necessary to accurately evaluate and represent their performance in terms of sustainability. As it turned out, a company's sustainability performance could not be fully or accurately stated. Insufficient Stakeholder Engagement Companies could not include their partners enough in sustainability reporting, which might reduce the information's value and veracity. To overcome these challenges, a consistent framework for evaluating and reporting sustainability performance must be developed. Additionally, budget decision-making processes must be further integrated with sustainability. There is a need to strengthen data collecting and reporting processes, public knowledge of sustainable economic growth and support, and interest group participation. How can transparency, accountability, and stakeholder involvement promote sustainable economic growth? What effects

may accounting and reporting have on these elements? How can businesses effectively gather and report sustainability data, and what is the best strategy to ensure the accuracy and completeness of the information provided? In-depth understanding about the role of accounting and reporting in promoting sustainable economic growth is provided by this research, which will be useful to businesses looking to enhance their sustainability performance increase I can provide some sage counsel.

Today's professionals are well-positioned to contribute to the SDGs thanks to their knowledge and experience in business, risk management, and government analytics, decision-making assistance, careful consideration, anti-corruption efforts, and critical emergence. Additionally, business sustainability is in an excellent position. I'm changing my mind as more professional organizations throughout the world see the value of accounting in reaching the SDGs. These organizations include the International Federation of Accountants, KPMG, and PwC. This article seeks to clarify the role of accounting in accomplishing the SDGs as well as advance sustainable development ideas in general. The writers use a variety of strategies to strengthen the position of professional accountants in expanding communities in order to achieve this. One of them is a sort of role where accountants exhibit professionalism in a work setting. The writers use a variety of techniques to improve professional accountants' contribution to sustainable development in order to accomplish this. One of them is a sort of role where accountants exhibit professionalism in a work setting. The ultimate result is a thorough comprehension of how accounting supports long-term development in a dynamic economic context. Another contribution of this article is a comprehensive look at the transformation of accountants in the context of sustainable corporate growth. There is also a need to further expand information and analytical support for sustainable development. For this reason, the auditor's professional qualifications are taken into account. Research on the evolution of accounting and reporting in exchanges highlights the importance of accounting standards and frameworks, environmental and social impact measurement and reporting, and sustainability considerations for financial decision-making in the context of sustainable economic growth. related to sex. It deals with a wide range of topics such as B. Developing more sustainable business models and introducing them into decision-making. Understanding how firms may successfully combine economic growth with social and environmental responsibility, as well as how accounting and

reporting can be utilized as instruments to assist sustainable economic development, is primary objective of this field of study. I'm done now.

By giving information about an organization's financial and non-financial performance, accounting and reporting play a significant part in preserving sustainable economic growth. An organization's financial performance and health are shown in financial reports, which include financial statements including balance sheets, income statements, and cash flow statements. Details on an organization's social and social responsibility are included in non-financial reports including sustainability reports and corporate social responsibility reports. effect on the environment. The need for corporations to report not only their financial performance but also their social and environmental implications has increased in recent years. This demand is being fueled by a number of causes, including mounting pressure from authorities, consumers, and investors, as well as the idea that businesses have a responsibility to promote sustainable economic development.

Considering environmental, social, and governance (ESG) issues when performing accounting and reporting tasks: This involves looking at how trading businesses include ESG elements into their accounting and reporting procedures, such as the impact on the environment, social responsibility, and corporate governance. ESG factors' integration into financial, non-financial, and integrated reporting procedures, as well as their measurement, disclosure, and auditing, can be the subject of research. The effect of accounting and reporting on sustainable economic development: This entails assessing the effects of trade organizations' accounting and reporting methods on the results of sustainable economic development. Research can look at the connections between major sustainability indicators such economic development, environmental preservation, social justice, and corporate responsibility and accounting and reporting standards. The impact of different stakeholders, like as regulators, investors, clients, workers, and civil society, on the creation of accounting and reporting standards for sustainable economic growth is also explored. Hurdles and challenges to adopting and implementing sustainable accounting and reporting practices: This involves recognizing the hurdles and problems that commercial organizations encounter. Studies might look at elements that affect the development of sustainable accounting and reporting practices, such as organizational culture, financial and non-financial measurement and reporting frameworks, legal requirements, and technical capabilities. In commercial companies, it can also look at

possible conflicts and trade-offs between sustainability goals and goals for financial performance. Researching new patterns and cutting-edge techniques in sustainable accounting and reporting in trade organizations is one of the opportunities for innovation in this field. In order to increase sustainable performance and stakeholder involvement, firms are adopting new technologies, data analytics, and reporting systems. We may also take into account how multi-stakeholder methods, collaborative projects, and partnerships might help to advance sustainable accounting and reporting standards. Overall, the main research objective is to advance the understanding of the role of accounting and reporting practices in promoting sustainable economic development in commercial organizations and provide insights that can inform policy, practice, and further research in this area.

Numerous companies have established integrated reporting systems that give a thorough overview of their financial, social, and environmental performance in order to meet these objectives. Companies must report on both their financial and non-financial performance as well as how they contribute to long-term economic growth under these frameworks.

The trend is to develop sustainable accounting standards in addition to integrated reporting systems. These recommendations offer advice on how businesses should consistently and comparably measure and disclose their social and environmental consequences. This enables stakeholders to evaluate the efficiency of various businesses and make better informed decisions.

The advancement of accounting and reporting in commercial organizations is becoming more and more crucial from the standpoint of sustainable economic growth. By ensuring that businesses are held responsible for their social and environmental repercussions and by disseminating information about an organization's financial and non-financial performance, accounting and reporting assist sustainable economic growth. gain. For two reasons, Section 3 reiterates the relationship between accounting and sustainable development. First of all, the Brundtland report's concepts are frequently copied into accounting literature without any reference to more current studies on sustainable development. Many key components of sustainable development might set accounting theory apart from adjacent fields if they are not addressed. In order to finish this section, it is secondly argued that sustainable development accounting should be distinct from social and/or environmental accounting. The remainder of the essay is divided into the parts that follow.

In Section 2, a succinct review of scholarly studies on the function of accounting in sustainable development is given. The methods that may be utilized to differentiate between these traits are examined in Section 3. Section 3 provides conclusions.

1.3 Research Objectives

The key research goal is to examine and analyse development of accounting and reporting in commercial organizations in the context of sustainable economic development. Based on the main research objective of investigating the role of accounting and reporting in commercial organizations in the context of sustainable economic development, the following specific research objectives could be considered:

- a) Evaluate the existence the financial performance of accounting and reporting in commercial organizations
- b) Analyse the effect of economic development on financial performance in commercial organizations
- c) Analyse the effect of sustainable economic development on financial performance in commercial organizations
- d) Analyse the effect of accounting on financial performance in commercial organizations
- e) Identify the gaps, challenges, and opportunities in sustainable accounting and reporting
- f) Innovate, research, and offer solutions for sustainable accounting and reporting procedures in commercial businesses after analyzing, identifying, evaluating, and assessing them.

1.4 Statement of the problem

The development of accounting and reporting practices in commercial organizations has been a key issue in the context of sustainable economic development. Accounting and reporting practices are crucial tools for the effective management and monitoring of organizational performance, particularly in terms of environmental and social impact. With the growing concerns over climate change, social inequality, and resource depletion, there has been an increasing demand for commercial organizations

to adopt sustainable business practices and integrate sustainability considerations into their decision-making processes.

However, there is a significant gap between the ideal of sustainable development and the reality of commercial organizations' actual practices. Many organizations continue to prioritize short-term financial gains over long-term sustainability goals, and there is often a lack of transparency and accountability in reporting practices. This has led to criticisms of "greenwashing" or the manipulation of sustainability reporting to create a positive image without meaningful action. Moreover, accounting and reporting practices have traditionally focused on financial performance measures, while social and environmental impact has often been overlooked or inadequately captured. As a result, there is a need for new accounting and reporting frameworks that can effectively measure and communicate sustainable performance. Given these challenges, the problem statement for the development of accounting and reporting in commercial organizations in the context of sustainable economic development is: how can accounting and reporting practices be developed and improved to effectively capture and communicate sustainable performance, and how can organizations be incentivized to adopt sustainable practices and report on their impact in a transparent and accountable manner? This problem statement highlights the need for innovative approaches to accounting and reporting that can support sustainable economic development and promote more responsible business practices. It also emphasizes the importance of creating incentives and frameworks that encourage organizations to prioritize sustainability and report on their impact in a meaningful and transparent way. Addressing these challenges will require collaboration and engagement from a wide range of stakeholders, including businesses, investors, regulators, and civil society organizations.

1.5 Innovation of the Research

The innovation of the research lies in the development of new accounting and reporting frameworks that can effectively capture and communicate sustainable performance in commercial organizations. This involves a shift away from traditional financial reporting practices towards more holistic reporting that considers social and environmental impact alongside financial metrics.

One key innovation is the adoption of Integrated Reporting (IR), which is an emerging reporting framework that seeks to integrate financial, social, and environmental performance measures into a single, integrated report. This approach recognizes that financial performance is interdependent with social and environmental performance, and that a more comprehensive reporting framework is needed to effectively capture and communicate sustainable performance.

Another innovation is the development of Environmental, Social, and Governance (ESG) metrics, which are a set of non-financial performance indicators that can be used to assess an organization's sustainability performance. ESG metrics include measures such as greenhouse gas emissions, employee diversity, and supply chain management, and can provide a more comprehensive view of an organization's impact on society and the environment.

In addition to these reporting innovations, the research also explores the role of incentives in promoting sustainable accounting and reporting practices. This includes an examination of the use of financial incentives, such as green bonds and sustainability-linked loans, as well as non-financial incentives, such as industry peer pressure and consumer demand for sustainable products and services. Impact evaluation of sustainable accounting and reporting: Analyze the real effects of sustainable accounting and reporting procedures on an organization's economic, social, and environmental performance as well as on the overall development of a sustainable economy. This could involve carrying out empirical research to assess the direct and indirect effects of sustainability reporting, such as increasing stakeholder trust, improving financial performance, having a favorable effect on society and the environment, and pinpointing the mechanisms by which sustainability reporting affects organizational actions and results. Emerging subject: Studying challenges pertaining to sustainable accounting and reporting in commercial companies, including; Examining these new concerns from the standpoint of accounting and reporting will offer fresh perspectives and aid trading firms in creating new procedures and approaches for incorporating sustainability into their reporting procedures. Overall, the innovation of the research lies in its focus on developing new accounting and reporting frameworks that can effectively capture and communicate sustainable performance in commercial organizations. By exploring the use of IR, ESG metrics, and incentives, the research aims to provide practical solutions for organizations

seeking to adopt more sustainable business practices and improve their reporting on social and environmental impact. These ground-breaking aspects of research will help advance our understanding of the function of accounting and reporting in trading organizations in the context of sustainable economic development, and will be helpful to businesses, policy makers, authorities, and other stakeholders.

1.6 Limitations of the study

Sample bias: The study's use of samples that are not representative of commercial firms in general may make it more difficult for the findings to be generalized.

Data reliability: Businesses' use of erratic, false, or insufficient financial and sustainability reporting data may have an impact on the validity of study findings.

Endogenous: For this inquiry, endogeneity can be difficult. This suggests that the reported relationships between sustainability reporting and financial success may be influenced by other variables, such as organizational culture, market trends, or outside variables that are challenging to control in analysis. A nature exists. Given that there may have been other factors influencing both results, this study may not demonstrate a causal relationship between financial performance and sustainability reporting. Companies that prioritize sustainability, for instance, could have creative cultures that have an impact on both financial success and sustainability reporting. **Bias towards social desirability:** This survey may be skewed by social desirability. Companies may improve their reputation and deepen the connection between sustainability reporting and financial performance by aggressively advocating sustainability initiatives.

The significance of sustainability reporting to economic performance may not have been explored in this study due to contextual considerations such as legal, economic, and cultural variations between nations and regions. A possibility exists. It is crucial that researchers are aware of these constraints and take action to solve them in order to assure the rigor and validity of their work as well as to offer pertinent and meaningful insights to business organizations and lawmakers.

1.7 Research Question

This thesis addresses the following issues:

- 1) What is the existence between financial performance of accounting and reporting in commercial organizations

- 2) What is the effect of sustainable economic development on financial performance in commercial organizations?
- 3) What is the effect of accounting and reporting on financial performance in commercial organizations?
- 4) What is the effect of sustainable economic development on financial performance in commercial organizations?
- 5) What is the gaps, challenges, and opportunities in sustainable accounting and reporting in commercial organizations?

What are the best practices and strategies for developing sustainable accounting and reporting practices in commercial organizations that promote sustainable economic development, and how can these practices be implemented effectively?

1.8 Significance of research

Increased accountability and transparency in commercial organizations can be fostered through the creation of accounting and reporting standards. Investors, stakeholders, and regulators may evaluate an organization's performance and make wise decisions with the use of transparent reporting systems. Promote ethical conduct: The creation of accounting and reporting standards can also motivate trading companies to behave ethically in the interest of sustainable economic growth. Companies may be urged to share information about their energy use, waste management methods, and carbon footprint, among other sustainability-related measures. Improving access to capital: Businesses that use sustainable practices might attract more funding from lenders and investors that place a high value on environmental, social, and governance (ESG) considerations. Access to financing for organizations that emphasize sustainable growth can thus be facilitated by research into the development of accounting and reporting. Promotion of social welfare: Sustainable economic development attempts to advance societal wellbeing by tackling economic, social, and environmental problems. The measuring and reporting of ESG elements is made easier by research in accounting and reporting development, which also aids in monitoring the development of sustainable economic goals. In order to enhance openness, accountability, access to capital, and social well-being in the context of sustainable economic growth, study on accounting and reporting development in corporate organizations is crucial.

1.9 Contribution to the study

Aid in the creation of theoretical models that explain the connection between sustainability reporting, financial performance, and ESG disclosure: This research may aid in the development of such theoretical models. This may facilitate study into the factors behind the link between financial performance and sustainability reporting.

Information Policy and Regulations: This research looks at how standard-setters and policy-makers may encourage businesses to adopt sustainability reporting practices and enhance the accuracy and comparability of sustainability reporting data. may offer understanding of This improves trading organizations' accountability and transparency and supports sustainable economic growth.

Support for commercial decision-making: By shedding light on the advantages and drawbacks of implementing sustainability reporting standards, as well as the business case for sustainability reporting, this research may help commercial decision-makers. Informed decisions on sustainability plans and effective stakeholder communication are made possible for trade organizations because to this. Taking on social concerns this research will aid in the fight against climate change, social inequality, and environmental degradation by supporting the adoption of sustainability reporting methods and encouraging trade organizations to include sustainability issues into their operations and decision making it can assist in addressing issues like overall, our study on the development of accounting and reporting in business organizations in the context of sustainable economic growth is a significant resource for expanding the subject of sustainability accounting and reporting and may be beneficial for

1.10 Research Hypothesis

H0: The Trading organization is not materially and favorably affected by financial performance

H1: There is a causal and positive relationship between financial performance and sustainability economic development.

H2: Is there significant relationship between financial success and sustainability reporting for commercial companies.

H3: The financial performance of commercial organizations is not significantly and favorably affected by sustainable management.

1.11 Research Model

The study's empirical model is based on the theoretical models and it is stated as follows

There are several alternative empirical models that might be employed to investigate the linkages between financial performance, trading, green growth, FDI, human capital, and CO2 because these interactions can be highly complicated and diverse. Here is a potential model that takes into account each of these variables:

$$\ln(\text{CO}_2) = \alpha + \beta_1 \ln(\text{Financial Performance}) + \beta_2 \ln(\text{Trade}) + \beta_3 \ln(\text{Green Growth}) + \beta_4 \ln(\text{FDI}) + \beta_5 \ln(\text{Human Capital}) + \gamma X_i + \delta_i + \varepsilon$$

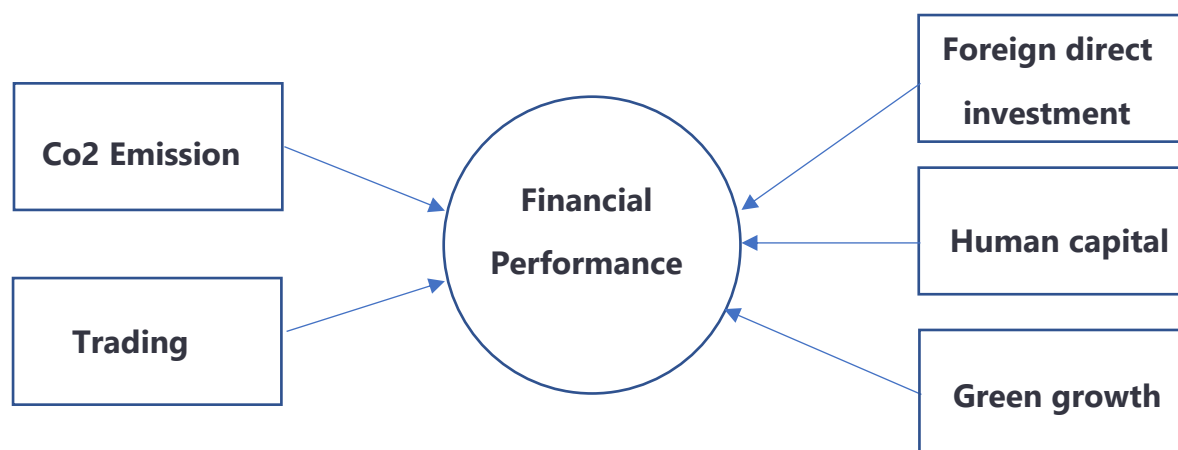


Figure 1: Dependent and independent variables

Here, $\ln(\text{CO}_2)$ is the inherent measures of CO2 emissions, $\ln(\text{FDI})$ is the natural logarithm of a measure of foreign direct investment, $\ln(\text{Financial Performance})$ is the natural logarithm of a measure of financial performance, such as return on assets or

market capitalization, $\ln(\text{Trade})$ is the natural logarithm of a measure of trade, such as exports or imports, $\ln(\text{Green Growth})$. The intensity and direction of the correlations between the corresponding independent variables and CO₂ emissions are shown by the coefficients $\beta_1, \beta_2, \beta_3$, and β_4 , while the unobserved or random elements that could affect the relationship are captured by the error term. The coefficients and control for time- and country-specific variables that may have an impact on CO₂ emissions for each nation and year, respectively.

It is important to keep in mind that there are several alternative models that may be used to investigate various facets of the connections and that this model is but one possible method of looking at the correlations between these variables. Additionally, depending on the study topic and context, the precise measures employed to put into practice every factor will also have a substantial influence on the outcomes.

Of course, the following are some instances of distinct equations that have been applied in empirical research to analyze the connection amongst the variables mentioned:

Financial performance and green growth are related:

A regression model with the following formula is one example of a formula that might be used to analyze the connection between financial performance and green growth:

$$\text{Green Growth} = \alpha + \beta_1 * \text{Financial Performance} + \varepsilon$$

Here, a variable like renewable energy generation or carbon intensity may be used to assess green growth, while a financial meter like return on assets or market capitalization could be used to measure financial performance. The error term would account for any unobserved or random elements that could have an impact on the link between Financial Performance and Green Growth, while the coefficients would show the relationship's strength and direction.

Correlation among human capital and carbon dioxide (CO₂) greenhouse gases: A panel data model with the following equation as a starting point might be used to investigate this relationship:

$$\ln(\text{CO2})_{it} = \alpha_1 \ln(\text{Human Capital})_{it} + \gamma_1 X_i + \delta_{it} + \epsilon_{it}$$

In this section $\ln(\text{Human Capital})$ is the organic logarithm of a measure of human capital (such as education level or labor skills) for nation i at time t , and $\ln(\text{CO2})$ is the natural logarithm of CO2 emissions for country i at time t . The error term is represented by X_i , which is a vector of control variables (such as GDP or energy prices). It also contains fixed effects for each nation and year. The effect of human capital on CO2 emissions would be captured by the coefficient α_1 , adjusting for additional pertinent variables.

Foreign direct investment, trade, and CO2 emissions are related:

A concurrent equation model with the following formula might be used to examine the connection between foreign direct investment, trading, and CO2 emissions:

$$\text{CO2} = \alpha_1 + \beta_1 \text{FDI} + \gamma_1 \text{Trade} + \delta_1 \text{GDP} + \epsilon_1$$

$$\text{FDI} = \alpha_2 + \beta_2 \text{CO2} + \gamma_2 \text{Trade} + \delta_2 \text{GDP} + \epsilon_2$$

$$\text{Trade} = \alpha_3 + \beta_3 \text{CO2} + \gamma_3 \text{FDI} + \delta_3 \text{GDP} + \epsilon_3$$

Here, CO2 stands for carbon dioxide emissions, FDI for foreign direct investment, and commerce for commerce. Gross domestic product, or GDP, is frequently used as a control variable. The error terms 1, 2, and 3 would capture any unseen or unpredictable factors that may influence the relationships, whereas the ratios 1, 2, and 3 would reflect the impact of each variable on the others, correcting for any pertinent factors.

1.12 Concepts and theories

- Measure the performance of the social, environmental, and financial spheres.
- Accountability Impact Disclosure is a kind of sustainability reporting.
- Stakeholder theory: Take into account all relevant parties, including the environment.
- Integrate both financial and non-financial data into performance views, advises IR.

- **Materiality:** Emphasize significant reporting on sustainability. A worldwide framework for sustainable development is known as the SDGs.
- **ESG:** Evaluate governance, social, and environmental elements for sustainability.

1.13 **Future study**

The development of accounting and reporting in commercial organizations in the context of sustainable economic growth must be the main topic of future study. As the world faces more environmental, social, and governance (ESG) issues, companies are being challenged to adopt sustainable practices and demonstrate their impact on society and the environment. Accountability and openness are key components of this process, and accounting and reporting play a crucial role by providing relevant data for these activities. Future study in this field may focus on a variety of significant issues, such as:

Including sustainability in accounting and reporting frameworks Future research may focus on how to incorporate sustainability issues into already utilized accounting and reporting methods, such as Generally Recognized Accounting Principles (GAAP) and IFRS. Investigating the possibilities and challenges of adding non-financial data in financial reporting, such as environmental, social, and governance indicators, as well as any possible implications on decision-making processes, may be necessary to achieve this.

Measurement and disclosure of sustainability performance: Developing frameworks for these two processes might be another area of study. Investigating the many methods and tools that are available for evaluating sustainability performance, including as environmental management systems, social impact evaluations, and sustainability reporting requirements, may be a component of this. Research may also focus on understanding the drivers of sustainability disclosure in for-profit organizations and how various disclosure levels impact stakeholders' perceptions and decisions.

The importance of technology in reporting and accounting for sustainability: In the context of sustainable economic growth, big data analytics, artificial intelligence, and blockchain technology have the potential to totally alter accounting and reporting processes. Future research may look at the risks and challenges associated with

adopting technology, as well as how it might enhance the quality, timeliness, and accuracy of sustainability data and reporting. Study may also examine how technology, such as the application of predictive analytics for sustainability forecasting and scenario analysis, might facilitate the incorporation of sustainability problems into decision-making processes.

Accounting and reporting for sustainability are affected by organizational and institutional factors. The greater institutional context in which firms operate has an impact on the accounting and reporting procedures. Future studies should examine the institutional and organizational factors that influence the adoption of sustainable accounting and reporting practices in for-profit businesses. These factors include corporate culture, leadership, governance structures, and regulatory frameworks. The establishment and implementation of sustainable accounting and reporting practices may also be studied in terms of how different institutional and organizational settings in various countries and business sectors impact them.

The implications of sustainable reporting on organizational performance through accounting A vital area for research may be determining the impact of sustainable accounting and reporting on organizational performance. Examining the relationships between monetary success, stakeholder perceptions of an organization's legitimacy, reputation, and value creation, and sustainability performance may be necessary. Research may also look at how organizational behavior, decision-making, and financial reporting are affected by sustainable accounting and reporting standards thought, too.

The growth of accounting and reporting in business organizations within the framework of sustainable economic development is, overall, a multifaceted and dynamic area that necessitates multidisciplinary study methods. Future research in this area may help to better understand how accounting and reporting may help businesses achieve their sustainability objectives while also addressing the difficulties and complexities of sustainable economic growth.

1.14 **Research Structure**

1. Inauguration Give a basic introduction to the research topic, emphasizing its importance for long-term economic growth, the role of accounting and reporting, and

the need for more investigation. Describe the significance, research areas, and objectives of the study.

2. **Second Literature Review** the existing literature on the development of accounting and reporting in commercial enterprises in connection to long-term economic growth. Identify the key theoretical concepts, conceptual frameworks, and empirical findings with regard to reporting, accounting, and the integration of sustainability into company operations. Find any gaps, limitations, or areas that require more investigation. Develop a theoretical framework that will act as the study's compass. One method for doing this may be to use relevant theories, models, or frameworks from the domains of accounting, sustainability, organizational behavior, and other related fields. Clearly describe the connections, subjects, and variables that the study will consider.

3. **Research Methodology:** Describe the strategies that will be applied to the data collection, analysis, and research design phases of the project. Give a thorough description of the approach adopted and defend the research methods used. Explain how the study will manage any potential limitations and keep its objectivity and validity.

4. **Findings and Analysis:** Provide an overview of the research study's findings based on the information acquired and the analysis carried out. This might involve quantitative, qualitative, or a combination of the two forms of analysis, depending on the study plan. Clearly communicate and understand the results while connecting them according to the goals and problems brought up by the study. **Discussion** Interpret and describe the relevance of the research findings in light of the study aims and relevant literature. Consider the results in the context of sustainable economic development and the role that accounting and reporting play in firms. Outline the theoretical and practical contributions of the study, emphasizing any potential implications for practice, policy, or future research.

5. Summarize the main findings of the study and draw conclusions that are consistent with the research objectives and research questions. Highlight the advantages and disadvantages of the study's conclusions and suggest possible lines of inquiry.

6. **References:** Using the proper citation and referencing forms, list each reference used in the research study in full include any additional resources, such as data

collection tools, interview transcripts, or supplemental analyses, that help to explain the findings and analysis presented in the research's main body.

7. Appendix. The specific shape and substance of the research study may vary depending on the research objectives, research questions, and methodology employed. It is essential to carefully plan and arrange the study in order to effectively communicate the study's findings and analysis.

1.15 An Overview of the Research

In recent years, there has been a lot of interest in the research on the evolution of accounting and reporting in corporate organizations in the context of sustainable economic growth. In order to assist sustainable economic growth, this research aims to investigate how commercial companies might include sustainability issues into their accounting and reporting methods. The study's main themes and conclusions are outlined below. The business case for sustainability reporting: Several studies looking at the business case for sustainability reporting have discovered that reporting on sustainability can improve a company's reputation, draw in socially conscious investors, make it easier to access capital, foster innovation, and increase operational effectiveness. rice paddock.

Financial performance and sustainability reporting relevance:

The study investigates the connection between financial success and sustainability reporting. There is conflicting evidence, but some studies point to a correlation between financial success and sustainability reporting, particularly for businesses that do well regarding the environment and society. Part of ESG disclosure: The research also examines how his ESG disclosures relate to financial performance and sustainability reporting. According to a number of research, increasing the amount of ESG disclosure can enhance the favorable correlation between financial success and sustainability reporting.

Issues and barriers to reporting on sustainability:

The absence of standardized reporting frameworks, concerns about data quality, and the financial and resource effect of sustainability reporting are just a few of the difficulties and hindrances that have been noted in several studies.

Participant roles:

The study emphasizes the value of stakeholder participation in sustainability reporting. Engaging with stakeholders enables businesses to recognize and rank sustainability-related concerns, improve the validity of sustainability reporting, and advance openness and accountability. The benefits and difficulties of sustainability reporting, the connection between sustainability reporting and financial performance, ESG disclosure, and stakeholder engagement are all discussed in research on the evolution of accounting and reporting in trading organizations relevant to sustainable economic development. It has given us crucial understanding of involvement. Encourage the sustainable growth of the economy. This study has significant ramifications for sustainable accounting and reporting policy, practice, and future study.

1.16 Definition of terms

Financial performance

Evaluates the financial performance of a firm over a specific time period. It serves as a barometer for how well a company is managing its operations and achieving its goals. Revenue growth, net income, profitability ratios (like return on investment or equity return, liquidity ratios, etc. (like present ratio or quick), as well as leverage ratios (like the ratio of debt to) are a few examples of financial ratios and indicators that are frequently used to evaluate financial performance. These facts and figures provide insight on the company's ability to generate revenue, manage cash flow, pay off debts, and make investments to grow the business. It is crucial for the management of the business as well since it enables them to assess the success of their financial strategy and make the required changes to enhance performance. Depending on the particular component of performance being assessed, a variety of formulae can be employed to quantify financial performance. Here are few instances::

ROE, or return on equity formula: ROE measures the rate returning that a company generates on the equity of its shareholders. The formula is:

$$\text{ROE} = \text{Net Income} / \text{Average Shareholder Equity}$$

Gross Profit Margin (GPM) formula: GPM measures the percentage of revenue that a company retains after deducting the cost of goods sold. The formula is:

$$\text{GPM} = (\text{Revenue} - \text{Cost of Goods Sold}) / \text{Revenue} \times 100$$

Earnings Per Share (EPS) formula: EPS measures the portion of a company's profit that is allocated to each outstanding share of its common stock. The formula is:

$$\text{EPS} = \text{Net Income} / \text{Number of outstanding shares}$$

Debt-to-Equity Ratio (D/E) formula: D/E measures the amount of debt that a company has relative to its equity. The formula is:

$$\text{D/E} = \text{Total Debt} / \text{Total Equity}$$

It's crucial to remember that while these formulae offer a fundamental foundation for assessing financial performance, other elements like cash flow, liquidity, and asset management are all crucial determinants of financial soundness. Additionally, it might be helpful to analyze these measures by contrasting financial performance with industry benchmarks or rivals.

CO2 Emission (Air Pollution)

CO₂, an odorless, transparent, and respiration, the breakdown and combustion of organic molecules, and the interaction of acids and carbonates in the environment all result in the production of incombustible gas. Carbon dioxide emissions, or CO₂ emissions as they are more often known, are produced when fossil fuels are burned and cement is made. The carbon dioxide generated also counts as a carbon dioxide emission. by the burning fuels that are solid, liquid, and gas, in addition to gas igniting and fuel usage. Carbon dioxide (CO₂) emissions are the release of carbon dioxide gas into the atmosphere as a result of human activities such as burning fossil fuels (coal, oil, and natural gas), industrial processes, and deforestation. One of the most urgent environmental problems confronting the world today is CO₂ emissions, which play a significant role in global climate change. It is usual to quantify CO₂ emissions in terms of "carbon footprint" or "carbon dioxide equivalent" (CO₂e), which accounts for the effects of other greenhouse gases like nitrous oxide and methane. CO₂ emissions are measured in metric tons of CO₂ per year. CO₂ emissions have a major and wide-

ranging impact on the environment. A greenhouse gas called CO₂ traps heat in the atmosphere, warming the earth and contributing to climate change. Rising sea levels, more frequent and severe weather events, ecological changes, and other adverse effects on human health and wellbeing can arise from this. At the municipal, national, and international levels, several initiatives have been created to address the issue of CO₂ emissions. The usage of fossil fuels may be decreased through the development of renewable energy sources, energy efficiency improvements, carbon capture and storage technologies, and reforestation and afforestation initiatives. International accords, such as the Paris Agreement on Climate Change, pursue measures to restrict global warming to 1.5°C and to keep it below 2°C. To achieve their CO₂ emission reduction goals, nations have established objectives and are moving forward with low-carbon economic transitions.

In general, lowering CO₂ emissions is essential to limiting the effects of climate change and ensuring the Earth and its inhabitants have a sustainable future.

Trading

focuses on the profitable purchasing and selling of financial items including stocks, bonds, commodities, currencies, and derivatives. Individuals, institutional investors, and businesses can all engage in trading, which can be done on a variety of marketplaces, including over-the-counter (OTC) markets, commodity exchanges, stock exchanges, and exchanges for commodities. The aim of trading is to purchase cheap and sell high, or in the case of short selling, to sell high and buy low. Trading choices are based on a variety of techniques used by traders, including technical analysis, fundamental analysis, and quantitative analysis. Depending on their objectives and level of risk tolerance, they also employ various trading tactics, including day trading, swing trading, and position trading. Trading can be done manually or with the use of automated trading systems, which employ computer algorithms to carry out deals in accordance with established guidelines and standards. Orders of various kinds, including as market orders, limit orders, and stop orders, which control how and when a deal is performed, can also be used in trading. Due to the ambiguity and volatility of the markets, trading may be a dangerous activity. In addition to managing their risks by putting stop losses in place, diversifying their

holdings, and utilizing techniques like hedging, traders must have a solid grasp of the markets they are trading in.

To compute various economic indicators utilized in international commerce, there are several formulae. Here are a few illustrations:

Balance of Trade (BOT) formula: The BOT measures the difference between a country's exports and imports of goods and services. The formula is:

$$\text{BOT} = \text{Total value of exports} - \text{Total value of imports}$$

If a country's exports exceed its imports, the BOT is positive (surplus); if imports exceed exports, the BOT is negative (deficit).

Terms of Trade (TOT) formula: The TOT measures the ratio of a country's export prices to its import prices. The formula is:

$$\text{TOT} = (\text{Price index of exports} / \text{Price index of imports}) \times 100$$

If the TOT increases, a country can buy more imports with the same quantity of exports, and vice versa.

Trade Balance Ratio (TBR) formula: The TBR measures the ratio of a country's exports to its Gross Domestic Product (GDP). The formula is:

$$\text{TBR} = (\text{Total value of exports} / \text{GDP}) \times 100$$

The TBR can be used to assess the importance of trade in a country's economy, and how dependent it is on exports.

Revealed Comparative Advantage (RCA) formula: The RCA measures a country's comparative advantage in a particular product or industry. The formula is:

$$\text{RCA} = (\text{Country's share of global exports of a product} / \text{Country's share of global GDP})$$

If a country's RCA is greater than 1, it has a comparative advantage in the product, meaning it has a higher share of global exports than its share of global GDP.

It's critical to keep in mind that while these formulae offer a fundamental foundation for comprehending trade and its different indicators, the actual computation of trade can be more difficult and may contain additional elements, such as tariffs, quotas, and trade agreements.

Human capital

Refers to the employees' knowledge, expertise, skills, and experience that help the organization be successful and productive overall. The value of the workforce's total abilities, knowledge, and experience might be considered an asset that belongs to the company. Organizations need human capital to accomplish their objectives and compete in the market. It encompasses both real and intangible assets, such as staff members' education and training, work experience, creativity, and invention, as well as their capacity for good teamwork and communication. It also includes their drive and dedication to the company.

Putting money into human resources may boost productivity, produce higher-quality goods and services, and give businesses an edge over rivals. By giving training and development opportunities, fostering learning and growth in the workplace, and providing skilled people with competitive pay and benefits, businesses can invest in their human capital. It can be difficult to quantify the worth of human capital, but there are a number of ways for businesses to evaluate the return on their investment in staff members, including employee performance measures, attrition rates, and employee satisfaction surveys. Businesses may build a solid and long-lasting workforce that supports corporate success by investing in human capital and managing it well.

Formula= Human capital = (Organizational knowledge + Employee skills + Experience + Innovation) x Organizational culture

Human capital = Cost of recruitment + Cost of training and development

Human capital = Sum of individual employee market values

Foreign direct investment (FDI)

Refers to an investment made by a firm or person from one nation into another with a view to obtaining a long-term stake and controlling ownership of a company. It is a

type of foreign investment that entails a protracted commitment and involves the exchange of assets, know-how, and technology between investing and host nations. FDI can take many various forms, including opening a branch or subsidiary, buying stock in an established business, or forming a joint venture with a local partner. FDI may be invested in a variety of industries, including manufacturing, services, and natural resources, and it can benefit both the investing nation and the host nation. FDI may give the investing nation access to new markets, resources, and technology while also assisting in the diversification of the investment portfolio. By enabling the business to develop worldwide and establish a presence in other markets, FDI may also provide it a strategic edge. New money, technology, and knowledge are all things that FDI can offer to the host nation, fostering economic growth, opening up job possibilities, and raising productivity. Additionally, FDI may aid the host nation in luring in additional international capital and propel the growth of regional businesses and infrastructure.

Governments frequently encourage FDI by providing perks like tax cuts, subsidies, and simplified regulatory procedures. However, FDI may also be vulnerable to political and regulatory risks and pose issues with respect to national sovereignty, employment, and social and environmental repercussions.

Overall, FDI has the potential to be a potent weapon for fostering economic growth and development, but it has to be well planned and managed to ensure that both the investing and receiving nations gain from it.

$$\text{FDI} = (\text{Total value of foreign investment} - \text{Total value of foreign disinvestment}) + \text{Reinvestment of earnings} + \text{Intra-company loans}.$$

Green growth (GG)

Refers to a form of socially inclusive, ecologically sustainable economic growth. It is an economic development strategy that aims to balance social equality and well-being with economic progress and the preservation and protection of natural resources. In other words, green growth attempts to accomplish economic development in a way that is both beneficial to society as a whole and does not hurt the environment. Green growth include using environmentally friendly methods of manufacturing and consumption, advancing clean technology, promoting renewable energy sources, and

protecting and regenerating ecosystems. Investments in social safety nets, education and training, as well as other policies and programs, are also necessary to guarantee that everyone in society benefits from economic prosperity. The idea of "green growth" was developed in response to the realization that conventional economic development methods were frequently unsustainable, resulting in resource depletion, environmental damage, and social inequity. By fostering a more sustainable and equitable form of economic growth that satisfies the requirements of both current and future generations, green growth aims to solve these issues.

CHAPTER II

Literature Review

2.1 Introduction

A literature review is a critical and thorough examination of prior research, academic papers, publications, dissertations, conference proceedings, and other pertinent materials on a specific subject or research issue. It is a crucial part of academic theses, dissertations, and research articles.

A literature review's primary goals are to summarize, assess, and synthesize previous findings and data on the subject at hand. It necessitates painstakingly reading, evaluating, and interpreting the pertinent literature in order to get a deeper understanding of the subject, spot research gaps, and present the background and theoretical underpinnings of a new enquiry.

Especially in commercial enterprises, accounting and reporting are crucial for the establishment of a healthy economy. Commercial businesses' accounting and reporting procedures have a big influence on the economy, society, and environment. Hence, the growth of accounting and reporting in business organizations is examined in this literature analysis as seen from a sustainable angle economic growth.

The function of professional accounting organizations in tackling the climate change and the new carbon economy are studied by Lovell and MacKenzie (2011). An essential summary of sustainable growth activities while accounting industry is provided by Ngwakwe (2012), who also emphasizes the requirement for more useful methods to succeed sustainable growth impact in accounting. " The three bottom lines " strategy and corporate involvement in sustainable development accounting activities, according to Milne and Gray (2013), may paradoxically result in increased levels of unsustainability. In their 2014 article, Bebbington and Larrinaga discuss the reasons why social and environmental accounting has not advanced despite attaining sustainable development as well as the potential for the integration of accounting and sustainability research. According to O'Dwyer and Unerman (2016), academic accounting research may be advantageous to society. Scharteger et al. (2017) examine how accounting innovation influences business sustainability. Building on the notion using the paradigm of autopoiesis, Khan and Gray (2016) as well as Lawrence, Botes, Collins, and Roper (2013) present a description of accounting, education, Regarding corporate behavior in relation to sustainable

development. It provides. In their 2002 study, Gray and Collison looked at the role of accountants and their education in the UK in relation to sustainable development. According to Ng, Leung, and Lo (2016), it is crucial to work with a new generation of accountants who are knowledgeable about sustainability. More than 4,500 of her ACCA students from 126 countries participated in the ACCA poll, which found that 81% of respondents directly relate their business to the loss (ACCA, 2014) of natural resources. Nonetheless, Noteworthy is the fact that the scholarly literature the significance of accountants in attaining Sustainable growth is typically significant, focusing mostly on the difficulties and obstacles faced by accounting in the move towards sustainable development. We think that more studies from groups that set accounting and reporting standards, such as IFAC, ACCA, and others, should be used to supplement this study. By researching these firms rather than conducting academic research, accounting professionals may attain SDGs in many other domains.

The scholarly literature is now engaged in an ongoing debate about the role of accountants in sustainable development and the SDGs.

Throughout the years, accounting and reporting have changed dramatically, especially in relation to sustainable economic growth. In the past, financial success has been the main emphasis of accounting and reporting methods, with little attention paid to environmental and social factors. Nonetheless, there has been a growing understanding in recent years that social and environmental factors must be included into accounting and reporting procedures.

Sustainability reporting "tracks, discloses, and holds accountable to internal and external stakeholders the performance of an organization towards its sustainable development goals," according to GRI (2018), a worldwide reporting project. It is customary to let The significance of sustainability reporting as a fundamental component of accounting and reporting processes in trading businesses is emphasized by this term. The literature is replete with studies on sustainability accounting, and on the Web of Science, he has over 18000 hits for a given combination of keywords. As it is both a broad word and a collective term, the domains of science concerned span ecology, political science, law, and economics. Most of the studies that were included when we restricted our search to the field of economics did so in relation to certain themes or facets of sustainable accounting. In order to acquire a fast summary of the advancements made thus far and to predict future trends, this article concentrates on the historical evolution of the area. Matthews (1997), Lamberton (2005), Thomson

(2007), Burrit and Schaltegger (2010), and the most current comprehensive research are the papers that have received the most citations to far in an attempt to describe sustainable accounting (2015). The starting point is the more recent history of the late 20th century because the history of sustainability accounting is the subject of all the work mentioned above. By first analyzing the historical evolution of the original area and then presenting the growth of sustainable accounting in an organic continuum, our contribution aims to give a more retrospective viewpoint. This study largely draws on two thorough overviews to comprehend the historical history of accounting and the development of sustainability thinking by looking at the academic sources available: The history of accounting. A Chronological Approach by Cindiana, M., Cindea, IM, Ciurariu, G, Trifu, A, and Durdureanu, C. Modern Times. Sustainable Development: The Historical Origins of the Idea. Pisani, J.D. As long as there has been humankind, crude accounting (goods inventory) has existed. Its growth is intimately correlated with humankind's greatest achievements, including the advent of commerce, the creation of money, and the invention of paper. Studies of ancient Hammourabi scrolls have uncovered accounting records, and there is proof that accountants were active throughout Egypt, Rome, and Greece's histories. After Luca Paccioli's work, which was based on "double-entry bookkeeping" founded in 1494 in "Arithmetic Totals, Geometry, Proportions and Proportions," modern accounting started its triumphal march from Italy. Italian corporations in the sixteenth century were characterized by a number of global holding companies and subsidiaries that adopted the Patchioli bookkeeping system as a standard practice and expanded as a result. With government backing, certain of these branches played a significant role in popularizing accounting systems, which resulted in their broad acceptance in numerous nations. The usage of "closing accounts" and the creation of revenue statements are only two examples of the fundamental practical outputs that were invented in the 16th century and are still in use today. The word "balance sheet" originated in the 17th century when the practice of employing sub-accounts created for certain company operations developed (introduction of the ending balance sheet). The public sector's adoption of accounting, the use of technical accounts, and the advancement of valuation techniques all occurred in the 18th century. Accounting gradually moved beyond "econometrics" as a technical means of assessing value during the course of the nineteenth century and further into the twentieth century to become a clearly distinct and widely recognized style of corporate management. IM Cindea, M. Cindiana, G. Ciurariu, A. Trifu, and

C. Durdureanu (2011). Throughout human history, the topic of how demand for basic materials affects the environment has persisted. From ancient times, we have struggled with deforestation, salinity, and declining soil fertility. These problems are sustainability difficulties in the modern sense. Yet, the industrial revolution made the issue a worldwide one. The concept of "progress" emerged in the West around the end of the 18th century, and from a scientific (technical), moral, and material perspective, civilization was moving gradually (and linearly) in the direction of its intended state. a field of rice. People were compelled to convert nature into consumer products as soon as possible starting at the end of the 18th century, when human livelihood possibilities started to be linked to economic progress. This included the acceptance of landscape damage because it was required and would only improve the quality of the products the sector produces and has to offer. As technology has spread around the world, the divide between wealthy and impoverished civilizations has widened dramatically. By the vast exploitation of raw materials, industrial expansion has led to serious environmental damage. A response to "development" has emerged: the concept of sustainability. The infinite potential presented by technical advancement at the start of the 20th century were quickly disproved by two world wars and the ensuing economic crises. A seemingly unstoppable economic boom resumed in the 1950s, and the increasingly anticipated ecological and/or economic disaster at the end of the 20th century started to loom. People have been prompted by the latter to reconsider how they see the boundaries of expansion. During the 1970s, different ideas about growth, sustainability, and development have shifted supporting a sustainable development, and as a result, the myth of progress is eroding owing to its negative social and environmental effects (Pisani, J.D., 2006). During the 1980s, the link between sustainability and development has grown, and the International Union for Conservation of Nature used the phrase "sustainable development" in its Global Conservation Plan. An worldwide community-wide long-term environmental policy was to be defined by a committee of 22 persons as a significant milestone by the United Nations. This is the Brundtland Commission, often known as the World Commission on Environment and Development (WCED). Sustainable development is defined as "development that satisfies the demands of the present generation without compromising the potential of future generations to satisfy similar needs," as stated by the Brundtland Commission in 1987. sustainable economic, environmental, and social growth is interpreted holistically (WCED, 1987). The Brundtland study wasn't

without its detractors. Conservative detractors see sustainability as a form of stasis that cannot keep up with population increase, human inventiveness as a barrier to controlling development and growth, and sustainable development as an impossibility. intended to render the insurance unnecessary (Mitcham C., 1995). During the 1990s, the issue of achieving sustainability through accounting procedures has attracted a lot of study attention. The outcome is a naturally expanding body of literature that is enhanced by numerous legislative initiatives, philosophical currents, educational initiatives, and empirical studies. Yet, there isn't a single, widely acknowledged definition of sustainable accounting in the body of research. All that can be said is that the amount of literature is constantly growing and that the terminology employed by the Brundtland Committee in 1987 must be utilized to characterize scientific study in this field. Throughout the past two decades, there has been some agreement in the literature. The social, economic, and environmental dimensions—the three main components of sustainability accounting—appears to be quite consistent when analyzed in current studies. There is also a purification of approaches; studies can be divided into two main lines of inquiry: a theoretical line that emphasizes accountability, contribution to sustainability, and steps toward sustainability (strategic aspect); and a second line of inquiry that focuses primarily on useful management tools (e.g., metrics, information systems, reporting), being thematically related to the field of financial accounting (Matthews, MR, 1997; Hódiné-Hernádi, B., 2014). As a turning point, Gray's work, "Sustainability Accounting Guidelines," which was presented at the World Summit on Sustainable Development in Johannesburg (2002), integrated the three most crucial sustainability accounting methods (sustainability costs, stockpiling natural capital, and input-output analysis) into a structure of traditional financial accounting (Gray, 2002). This methodological work has received the most citations to date on the subject. In order to combine many perspectives on the topic, Geoff Lamberton developed a "standards" framework for sustainable accounting in 2005. This framework substantially draws from Gray's first definition. His study yielded the "three bottom lines" (TBL), total cost accounting (Atkinson, 2002), and sustainability accounting (principles, tools, measurements, and models) (Elkington, 1999; Westing, 1996). Formal guidelines for reporting on sustainability have arisen in recent decades. The Coalition for Environmentally Responsive Economies (CERES) and the United Nations Environment Program (UNEP) established the Global Reporting Initiative in 1997 to

set guidelines for reporting on an organization's economic, environmental, and social elements. Incorporated as (GRI) in (bottom three lines) (Hyršlova J., Beckova H., Kubanova M., 2015). The European Union is assisting in the creation of a legal framework for reporting on sustainability (non-financial reporting).

A Directive (2014/Directive 95/EC) was issued in 2014 that mandates a sizable number of businesses (about 11,700 of the biggest) to publish non-financial and diversity information. The European Commission announced guidelines to help businesses disclose environmental and social information in June 2017 to make process easy. His 2019 global warming recommendations added to this. On April 21, 2021, the European Commission accepted the Corporate Sustainability Reporting Directive (CSRD) proposal, which alters the NFRD's current reporting obligations. The plan specifies esoteric disclosure rules and requires the verification of provided information. It is applicable to all significant firms and all companies listed on regulated exchanges (apart from micro-listed businesses). Moreover, mandatory reporting requirements for community sustainability are being adopted.

The European Financial Reporting Advisory Group (EFRAG), which was given the task, has created the draft standard. The first set of standards will be developed by October 2022 in accordance with EU policy and with the help of international standardization efforts (EU Consultation, 2020).

2.2 Financial Performance And Co2 Emission

There is a growing body of research examining the relationship between financial performance and CO₂ emissions. Some studies suggest that there is a negative relationship between these two variables, meaning that companies that emit high levels of CO₂ tend to have lower financial performance, while companies that emit low levels of CO₂ tend to have higher financial performance.

One reason for this negative relationship could be that companies that are more environmentally responsible are also more efficient in their use of resources and have lower operating costs. By reducing their energy and resource consumption, they are able to improve their profitability. "Carbon Emissions and Financial Performance: A Study of the S&P 500" by Andrea Romi and James F. Oehmke (2016): This study analyzed the relationship between carbon emissions and financial performance for companies in the S&P 500 index. The study found a negative relationship between carbon emissions and financial performance, suggesting that companies with lower

emissions had higher financial performance. The authors suggest that this relationship may be due to the fact that companies with lower emissions are more efficient in their use of resources.

"Corporate Sustainability and Financial Performance: An Empirical Analysis on Italian Companies" by Federica Salvioni, Francesca Gennari, and Matteo Farneti (2017): This study examined the relationship between corporate sustainability and financial performance for Italian companies. The study found a positive relationship between corporate sustainability and financial performance, suggesting that companies that are more environmentally responsible also have higher financial performance. The authors suggest that this relationship may be due to the fact that environmentally responsible companies are able to reduce costs and attract environmentally conscious customers.

"CO2 Emissions and Company Performance: Proof from China's Industrial Sector" by Yuxin Sun, Shanshan Wang, and Ying Chen (2018): This study analyzed the relationship between CO2 emissions and financial performance for firms in China's industrial sector. The study found a negative relationship between CO2 emissions and financial performance, suggesting that firms with lower emissions had higher financial performance. The authors suggest that this relationship may be due to the fact that firms with lower emissions are able to reduce their energy costs and are more attractive to socially responsible investors.

Overall, these studies suggest that there is a relationship between financial performance and CO2 emissions, and that companies that are able to reduce their emissions may also benefit financially. However, it is important to note that the relationship may vary depending on the specific context and industry.

2.3 Financial Performance And Trading

The financial performance of a company can have a significant impact on its trading activity. Here are a few studies that explore the relationship between financial performance and trading:

"The Relationship Between Stock Returns and Trading Volume: Evidence from the UK" by Ilias Lekkos, Costas Milas, and Theodore Panagiotidis (2005):

This study used data from the UK stock market to examine the relationship between stock returns and trading volume. The authors used a regression analysis to estimate

the relationship between these two variables, controlling for other factors that could affect trading volume, such as market volatility and trading costs.

The study found that there was a positive relationship between trading volume and financial performance, as measured by earnings per share (EPS) and return on equity (ROE). Specifically, the authors found that a one percent increase in EPS was associated with a 0.39 percent increase in trading volume, while a one percent increase in ROE was associated with a 0.28 percent increase in trading volume. The authors suggest that this relationship may be due to the fact that investors are attracted to companies with strong financial performance and are more likely to trade their stocks. The study also found that the relationship between stock returns and trading volume was stronger for larger firms, suggesting that investors may be more likely to trade the stocks of larger, more established companies. "Financial Performance and Investor Sentiment: Evidence from the Taiwan Stock Market" by Ming-Chung Chang and Hsiao-Fen Yang (2016): This study analyzed the relationship between financial performance and investor sentiment in the Taiwan stock market. The authors used a dataset of 609 companies from 2005 to 2014, and measured financial performance using return on assets (ROA), return on equity (ROE), and earnings per share (EPS). The study found that there was a favorable connection between financial performance investor sentiment, according to the Taiwan Stock Exchange Weighted Stock Index (TAIEX). Specifically, the authors found that a one percent increase in ROA, ROE, and EPS was associated with a 0.27 percent, 0.29 percent, and 0.30 percent increase in TAIEX, respectively. The authors suggest that this relationship may be due to the fact that investors are attracted to companies with strong financial performance and are more likely to trade their stocks. They also note that this relationship may be stronger in emerging markets like Taiwan, where investor sentiment can have a greater impact on stock prices. "The Effect of Financial Performance on Trading Volume: Evidence from the Tehran Stock Exchange" by Ali Pouraghdam and Farhad Razaghian (2019):

This study examined the relationship between financial performance and trading volume in the Tehran Stock Exchange. The authors used a dataset of 83 companies from 2011 to 2016, and measured financial performance using return on equity (ROE), earnings per share (EPS), and price-to-earnings ratio (P/E).

The study found that there was a positive relationship between financial performance and trading volume. Specifically, the authors found that a one percent increase in ROE, EPS, and P/E was associated with a 0.46 percent, 0.47 percent, and 0.36 percent increase in trading volume, respectively.

The authors suggest that this relationship may be due to the fact that investors are attracted to companies with strong financial performance and are more likely to trade their stocks. They also note that this relationship may be stronger in emerging markets like Iran, where there is less information available about companies and financial performance may be a more important factor in investor decision-making.

Overall, these studies suggest that there is a positive relationship between financial performance and trading activity, and that companies with strong financial performance may be more attractive to investors and have higher trading volume. The exact nature of this relationship may vary depending on.

2.4 Financial Performance And Human capital:

Human Capital and Financial Performance: Evidence from the United Kingdom" by M. Shahid Ebrahim and Philip Molyneux (2009):

This study investigated the relationship between human capital and financial performance in UK firms. The authors used a sample of 92 firms and measured human capital using education level and experience of directors and managers.

The study found that there was a positive relationship between human capital and financial performance, as measured by return on assets (ROA) and return on equity (ROE). Specifically, the authors found that a one standard deviation increase in human capital was associated with a 5.5 percent increase in ROA and a 4.4 percent increase in ROE.

The authors suggest that this relationship may be due to the fact that firms with more experienced and educated directors and managers may be better able to make strategic decisions and manage resources effectively.

"The Impact of Human Capital on Financial Performance: An Empirical Study of French Listed Companies" by Salim Hammami and Aida Bejaoui (2013):

This study analyzed the relationship between human capital and financial performance in French listed companies. The authors used a sample of 136 firms and measured human capital using education level, experience, and age of directors and managers.

The study found that there was a positive relationship between human capital and financial performance, as measured by return on investment (ROI) and Tobin's Q. Specifically, the authors found that a one standard deviation increase in human capital was associated with a 3.6 percent increase in ROI and a 6.1 percent increase in Tobin's Q.

This study examined the relationship between human capital and financial performance in Chinese firms. The authors used a sample of 1,012 firms and measured human capital using education level and experience of managers.

The study found that there was a positive relationship between human capital and financial performance, as measured by return on assets (ROA), return on equity (ROE), and Tobin's Q. Specifically, the authors found that a one standard deviation increase in human capital was associated with a 1.9 percent increase in ROA, a 1.7 percent increase in ROE, and a 3.8 percent increase in Tobin's Q. The authors suggest that this relationship may be due to the fact that firms with more educated and experienced managers may be better able to innovate, manage resources effectively, and build strong relationships with stakeholders. Overall, these studies suggest that there is a positive relationship between human capital and financial performance, and that firms with more experienced and educated directors and managers may be better able to make strategic decisions, identify and exploit market opportunities, manage resources effectively, and build strong relationships with stakeholders.

2.5 Financial Performance And Green growth:

Positive correlation between financial performance and sustainability: Several studies have found a positive relationship between a company's sustainability practices and its financial performance. Companies that prioritize sustainability are more likely to have long-term success, higher profitability, and better stock returns than their less sustainable counterparts. One study by Harvard Business Review found that the top quartile of companies in terms of sustainability outperformed the bottom quartile by 4.8% in terms of profitability and 2.4% in terms of stock returns (Eccles & Serafeim, 2013). Economic benefits of green growth: Green growth refers to economic growth that is sustainable and low-carbon. A report by the Global Commission on the Economy and Climate found that green growth can lead to better economic performance. The report found that investing in low-carbon technologies can lead to

a net increase in economic output and employment. For example, investments in renewable energy and energy efficiency can reduce energy costs and create new jobs (Global Commission on the Economy and Climate, 2014).

Higher profitability and lower risk for ESG-focused companies: ESG stands for environmental, social, and governance. Companies that prioritize ESG factors tend to have higher profitability and lower risk. A study by Deutsche Bank found that companies with higher ESG ratings had higher profitability and lower risk. Companies that prioritize ESG factors are more likely to have a good reputation, which can lead to higher customer loyalty and lower costs associated with environmental and social risks (Deutsche Bank, 2012).

ESG performance and financial performance: A meta-analysis of 2,200 studies by MSCI found that companies with strong ESG performance had higher profitability and lower volatility than their peers. Companies that prioritize ESG factors tend to have a better understanding of the risks and opportunities associated with sustainability issues. For example, companies that prioritize social issues are more likely to have a diverse workforce, which can lead to better decision-making and a stronger corporate culture (MSCI, 2015).

Overall, these studies suggest that there is a positive relationship between financial performance and green growth. Companies that prioritize sustainability and invest in low-carbon technologies are more likely to have long-term success, higher profitability, and lower risk. By focusing on sustainability, companies can improve their bottom line while also reducing their environmental impact.

2.6 Financial Performance And Foreign direct investment

FDI can improve financial performance: Foreign direct investment can have a positive impact on the financial performance of the host country. FDI can increase the country's external financial position by bringing in foreign capital, which can be used to finance investment and spur economic growth. FDI can also help improve a country's balance of payments by increasing exports and reducing the need for foreign borrowing (International Monetary Fund, 2017).

FDI and financial stability: Foreign direct investment can also promote financial stability. FDI can provide a stable source of financing that is less volatile than other forms of capital, such as portfolio investment. FDI can also help diversify a country's

financial sector, reducing the dependence on any one type of financing or source of capital. This can help reduce the likelihood of financial crises and make a country's financial system more resilient (World Bank, 2012).

FDI and profitability: Foreign direct investment can improve the profitability of companies. Studies have shown that foreign-owned companies tend to be more profitable than domestically owned companies. This is due in part to the fact that foreign-owned companies often have access to more advanced technologies, better management practices, and larger markets than domestically owned companies. Foreign-owned companies also tend to invest more in research and development, which can lead to greater innovation and competitiveness (United Nations Conference on Trade and Development, 2019).

FDI and financial risk: While foreign direct investment can bring many benefits, it can also increase financial risk. FDI can increase a country's exposure to external shocks, such as changes in global economic conditions, political instability, or natural disasters. FDI can also increase the volatility of a country's financial markets, as foreign investors may be more likely to pull their capital out of the country in response to alterations in the economic or political conditions. This can lead to capital flight, which can be destabilizing for the country's financial system (European Central Bank, 2017).

In summary, foreign direct investment can have a significant impact on financial performance, financial stability, and profitability. FDI can bring in much-needed capital and provide a stable source of financing for investment and growth. It can also promote financial stability by diversifying a country's financial sector. However, FDI can also increase financial risk and volatility, and countries and companies should carefully evaluate the potential benefits and risks of FDI before making investment decisions. International Monetary Fund. (2017). Foreign Direct Investment and Economic Performance. IMF Policy Paper Retrieved from.

2.7 ESG Report

Companies can disclose their environmental, social, and governance performance through ESG reporting. Investors, consumers, workers, and regulators are just a few of the stakeholders that are getting more and more concerned about these challenges. ESG reporting enables a business to share its ESG performance with stakeholders in

a transparent and consistent manner, enhancing reputation and fostering confidence. In order to satisfy the increased demand from stakeholders for information on these topics, companies must report on their ESG performance.

2.7.1 Defining sustainable development

The most widely used definition of sustainable development is "development that satisfies existing demands without jeopardizing the ability of future generations to satisfy those needs." (1987, UNWCED, p. 8). Although many people are familiar with this concept, its radical nature can only be comprehended in the context of the era in which it was originally introduced. They contend that sustainable development is "not a scientific notion but a contentious word in a fundamentally political discourse about human activity and behavior" as a result (Cohen et al. ., 1998, p. 52). Yet, some aspects of environmental evaluations, for instance, could be grounded on science (see, for example, Rockstrom et al., 2009). Both ontological and epistemological questions are brought up by this argument.

It is believed that conceptualization helps to distinguish between natural and social systems from an ontological standpoint. Although there is ambiguity regarding the environmental systems aspect of sustainable development, this uncertainty differs from that which is present when looking at the social systems aspect (Frame & See also O'Connor, 2011). For instance, legislators engaged in establishing opportunity costs and speculative baselines (Lohmann, 2009) have heatedly debated carbon accounting. Yet to minimize the mechanisms by which climate change and physical measurements are created, the science of carbon emissions and climate change rejects a simply narrative approach that reduces them solely to dismantlable social institutions (Dunlap , 2010; Herbohn, 2005; Redclift, 1999). What I want to do is By concentrating on the myths that surround physical occurrences, it is possible to reject them as "unreal" at their most extreme. Regarding the science of climate change, Latour (2004, p. 231) says:

The challenge was never to ignore the facts, but rather to get even closer to them; it was never necessary to reject empiricism, but rather to revitalize it. My justification is that we were misled by a critical mentality, which also caused us to fight the wrong adversary and, at worst, to be viewed as friends by the wrong allies.

Although it must be acknowledged that environmental issues have an unknowable physical basis, theories for sustainable development must be founded on differences between natural phenomenon. 2008; Walker et al., 2003) as well as the inherent difficulty and various ways that the term "social" is framed as a subject of study. This ontological perspective has ramifications for epistemology. He cites the notion of sustainable development as an illustration, saying that it represents a desire for "a more integrated approach to solving intricately interconnected global environmental and development concerns" (Goeminne, 2011, p. 627). A re-examination of how knowledge is created, including the relative levels of interaction between disciplines and movements, through multidisciplinary techniques, is implied by such an integrative manner. The idea that we require not just new ideas in the field, but also new methodologies, may have been forgotten over time (and by the constant repeating of the Brundtland Report's minimal definition with little or no further debate). to think about and mold practice. Particularly, research that is issue-centered (as opposed to research that begins with a disciplined beginning point for problem identification) enables the assessment of the problem's subjective and objective aspects concurrently. Also, such research might include several viewpoints (including those affected). In reality, issues that are commonly acknowledged as coming under the umbrella of sustainable development are frequently referred to as "WEHAB" (Clark & Dickson, 2003, p. 8059). Objectives for Agriculture, Water, Energy, Health, and Biodiversity. It is crucial that these topics cannot be clearly matched to expertise. Instead, they are contexts that can only be comprehended by using a variety of viewpoints.

So, research must at the very least take an integrated framework. The WEHAB targets were created in response to policy considerations, but significant scientific organizations (see Rockstrom et al., 2009) also pay attention to the threat that climate change poses to human well-being (see Intergovernmental Panel on Climate Change, 2007, 2013; Stern, 2006), as well as concerns about the integrity of ecosystems due to changes in the nitrogen cycle or declining biodiversity (Millennium Ecosystem Assessment., 2005 United Nations Environment Program). Despite the fact that all species will be impacted by global environmental climate change, these concerns about human modification of the planet's vital infrastructure focus primarily on the dangers to people's wellbeing that arise from these trends through the loss of ecosystem services (for a significant publication on the implications of these trends see *The Economics of Ecosystems and Biodiversity*, 2010). The anthropo- cene,

which is defined as a time when "human actions have become the major engine of global environmental change," is a period that many people feel we are currently living in (Rockstrom et al., 2009, p. 472)

While ecological concerns mostly focus on potential dangers to human flourishing today, there are still difficulties with wellness. Regardless of how it is defined, development throughout the world is incredibly uneven, with some people living in abject poverty while others are beginning to suffer the "diseases of prosperity." Sen (1999) offers an influential conceptualization of development as freedom (for example, obesity, heart disease and psychological ill health). The Millennium Development Goals and the annual update released by the United Nations Department of Economic and Social Affairs both express concerns about unequal development, but domestic equity continues to be a major political issue that influences the policies of all national governments to a varying degree. *Moving Concerns* (Wilkinson & Pickett, 2009). In fact, many nations are once again debating and experimenting with the nature and dynamics of human population well-being (see Jackson, 2009; Stiglitz, Sen & Fitoussi, 2009; Victor, 2008). earlier employment in this field (Ayres, 1998; Daly, 1996).

As a result, it is easy to list the numerous issues that sustainable development addresses without coming up with a comprehensive definition that covers all potential activities that may grow in the space (characteristics and sustainable scientific roots of development). Naturally, this categorization—as opposed to the notion of sustainable development—raises issues when the typical field inquiries are conceptual and have relatively established answers. Müller (2003, p. 24) succinctly articulates this concept by saying: In addition, it should be noted that such research are atypical in comparison to more structured fields because of formalism and the absence of widely agreed concepts and notions. For the purpose of clarity, Gibbons et al. (1994) make the following distinction between mode 1 and mode 2 science: The kind of work provided by the Academy that is driven by scholarly curiosity is referred to as Mode 1. (which is characterized as the normal way of working academically). While Mode 2 science may incorporate teams of researchers from other disciplines, it has a problem-centric orientation informed by practical concerns.

Claims that sustainable development is pointless are also made since there is no official definition of it (from a Mode 1 perspective). According to Cohen et al. (1998, p. 354), the phrase "sustainable development" is meaningless. In fact, it could signify a paradigm shift in how we view the connections between environmental and socioeconomic challenges. As a result, although while the Brundtland Report's concept of sustainable development is wide and has allowed for the unification of several coalitions under its rhetoric, the implicit A rule emerged and its applicability in some situations is still debatable. Therefore, it is unclear that a discipline-specific research approach would be adequate to adequately characterize or answer a specific sustainable development issue given the complexity and interdependence of the concerns outlined above. For instance, describing rural poverty as being brought on by a lack of revenue suggests an economic-based solution (increasing income). Yet, there may not be any land title concerns as a result of this restriction and cure (legal issues). Research-based agricultural practices or gender disparities may be a factor in poverty. In this example, there are several study fields that can help throw light on rural poverty, yet they all only address a portion of the issue. In light of this, two study paradigms have arisen. study that aims to frame the disciplinary employing problem concerns as focus points and discipline-specific insights into sustainable development challenges (sustainability science approach). Yet, it is important to look more closely at how accounting disciplines have attempted to solve problems originating from the sustainable development objective before going to this second method of his.

2.7.2 Sustainable Development:

A concept called "sustainable development" tries to balance social and environmental concerns with economic growth. We understand that economic development that degrades social and environmental well-being cannot be sustained. This paradigm promotes long-term economic, social, and environmental sustainability by encouraging organizations to adopt sustainable practices. A balance between social advancement, economic expansion, and environmental preservation is necessary for sustainable development. Promoting inclusive, egalitarian, and ecologically sound economic growth is necessary. Together with safeguarding and repairing the natural environment, it also entails guaranteeing social development that is equitable and supports the well-being of everyone. In response to rising worries about the effects of economic growth and development on the environment,

the idea of sustainable development originated in the 1980s. The Brundtland Commission's *Our Common Future* report from 1987 popularized the idea and described development as "filling the demands of the present without sacrificing the ability of future generations to satisfy their own needs." The idea of sustainable development is now generally accepted and is incorporated into the practices and policies of governments, international organizations, and corporations all around the world. An example of international initiatives to promote sustainable development is the United Nations Sustainable Development Goals (SDGs), which were approved in 2015. To eradicate poverty, safeguard the environment, and advance prosperity for everyone, the SDGs offer a framework for action.

2.7.3 Sustainable development reporting

"Social reporting may advance from fringe activities established by socially aware, alternative individuals enterprises to legitimate and grave actions embraced by many big organizations," claim Wheeler and Elkington (2001). (p. 5). At first look, the business community seems to be quite interested in and knowledgeable about this activity. For instance, in less than ten years, there were 600% more paper non-financial reporters than there were in 2003 (600 total), and up to 1,300 electronic reports were generated. Kolk (2003) discovered that 50% of Fortune Global 250 businesses used his SDR in some capacity between 1998 and 2001, indicating that it has a high degree of coverage. Managers' judgments on when and how to report have been shown to be strongly influenced by various firm features and contextual variables. Adams (2002) reviews the prior literature and adduces that internal organizational structures might affect the nature and caliber of reporting (Table I lists these elements), implying that managers' attitudes are crucial. Focusing on commercial, social, political, and accountability limitations, Solomon and Lewis (2002) .

Others believe that accountability through her SDR, which enables and compel managers to think on the social and environmental aspects of their organizations, should be the dynamic that unites these issues. Yet, conclusions drawn from present practice also impose to other users. Yet, conclusions drawn from present practice also apply to other drivers. As seen in Table I, a'relevant public' can be strong or influential depending on the circumstances (Patten, 1992; Darrell and Schwartz, 1997; Deegan

et al., 2002). It has a target. According to other studies of organizations responding to "pulls" or "kicks" (Laughlin, 1991), it has been theorized that the SDR was purposefully created to garner and sustain a significant amount of voter support. According to Deegan (2002), social accounting literature. According to a paradigm that emphasizes resource dependence (derived from Pfeffer and Salancik, 1978), legitimacy is a resource that must be gained in order to survive (Suchman, 1995; Milne and Patten, 2002). To convey substantial (and expected) changes to corporate rules and/or practices, organizations create SDRs. alter how people view the company and/or its actions (not necessarily behavior). modifying what constitutes social legitimacy. and/or establishing connections between the group and other respectable groups (Dowling and Pfeffer, 1975; Lindblom, 1993; Milne and Patten, 2002; suchman, 1995). Observations, nevertheless, indicate that supervisors don't always see her SDR from a logical standpoint (Campbell, 2000; Adams, 2002). O'Dwyer (2002), for instance, argues that while Irish managers frequently state that firms adhere to stakeholder expectations to secure their continuous support, MDR Few people, according to our research, think that they can support such legitimacy. Adams (2002) also discovered that senior environmental communication managers who had strong reservations about the necessity and benefit of external verification (to boost the veracity of provided data and raise stakeholder support) afterwards acknowledged confirming his SDR. Inconsistencies in present practice are highlighted by Solomon and Lewis (2002) and O'Dwyer (2002), indicating that stakeholder expectations are disregarded or subject to minimal accountability. Bell (2000). As a result, using a more standardized study methodology (Hackston and Milne, 1996; Gray et al., 2001) and/or looking at a wider range of issues (Campbell, 2000; Adams, 2002). Critical theorists reframe the topic to stress the symbolic and compositional possibilities of SDR, contending that it offers a method of fending off fundamental societal change (Puxty, 1986; Tinker et al., 1991) and provides a solid foundation for establishing legitimacy. It highlights the impact of societal circumstances and acknowledges that there is pressure for organizational actions, including SDRs, to be in line with public expectations rather than necessarily seek well researched results. Some have recommended (Milne and Patten, 2002; Scott, 1995; Ball, 2005, 2007). In order to comprehend both the structural, formative explanation of reporting activity and the rational, managerial conduct, Buhr (2002) proposes structuring theory. An intentional effort to assure authenticity may have led to the construction of an SDR, but it may

also have a formative effect on the data being tracked. In this piece, we apply the New Institutional Theory to get fresh understanding of how social environment affects managers' decisions to start SDR (Larrinaga, 2007; Milne and Patten, 2002; Ball, 2005, 2007). The new institutional explanations of organizational activity minimize rational management conduct and emphasize how social settings organize because they are "obviously sociological" (DiMaggio and Powell, 1991, p. 11). It focuses on a participant-influencing action that is largely unconscious. They appear "suitable" and are "normal" in the environment in which they function. However, from a rational perspective of resource dependence that is prevalent in the SDR literature (Milne and Patten, 2002, and Deegan, 2002), a set of factors Broaden your focus to the more complex and nuanced aspects of conscious business decisions. New institutional approaches are still concerned with legitimacy. Through more in-depth engagement with a group of organizations starting reporting activities in a way that also represents the significant role that organizational dynamics play in the institutionalization process, we aimed to capture this complexity. Diploma: In conclusion, trade companies' accounting and reporting procedures have dramatically changed in recent years, particularly in light of sustainable economic growth. Integrated reporting and sustainability reporting have become significant accounting and reporting methodologies that give stakeholders a more thorough understanding of a company's economic, social, and environmental performance. As businesses become more conscious of how important sustainability is, sustainability and integrated reporting will continue to gain relevance and popularity.

2.7.4 Sustainability Reporting:

A thorough evaluation of a company's economic, social, and environmental performance is provided via sustainability reports. A company's environmental effect, social responsibility, governance procedures, and financial performance are often included in sustainability reports. The goal of sustainability reporting is to tell stakeholders about a firm's performance in these areas so they may choose the company with knowledge.

According to Adams et al. (2016), increased demand from stakeholders including investors, consumers, workers, and regulators has led to a rise in the use of sustainability reporting in recent years. The authors contend that organizations may

gain a competitive edge through sustainability reporting by boosting their reputation, building their brand, and lowering their hazards. the process of informing stakeholders on a company's environmental, social, and economic performance. As more stakeholders, including customers, workers, and investors, expect responsibility and transparency from businesses about their sustainability performance, sustainability reporting is becoming more and more crucial.

2.7.5 Aspects of sustainability reporting:

Environmental report: Businesses provide information on their environmental performance, including how they utilize energy, natural resources, produce greenhouse gas emissions, handle waste, and work to slow down climate change.

Social reporting: Businesses document their performance in terms of how it affects suppliers, workers, and consumers. Information on charity, community participation, human rights, and labor practices are also included.

Business report: Businesses provide information on their financial results, economic performance, and contributions to the national and international economies. This can contain details regarding our supplier chain, new product development, and sales expansion. **Participation of stakeholders:** Businesses consult with stakeholders to get input on their sustainability efforts and pinpoint areas for development. This could entail gathering data, holding forums with stakeholders, and collaborating with them on sustainability projects. **Reporting frameworks:** Various frameworks, such as the Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), and Task Force on Climate-related Financial Disclosures, are available to direct your sustainability reporting (TCFD). In general, firms should use sustainability reporting as a key tool to inform stakeholders about their sustainability performance and encourage them to adopt more sustainable practices. Companies may show their dedication to sustainability and give their stakeholders relevant information by disclosing their performance in the areas of the environment, society, and economy.

2.7.6 Environmental performance in sustainability reporting:

They include matters like biodiversity, waste management, energy consumption, and greenhouse gas emissions. In a sustainability report, environmental performance

refers to a company's environmental effect, which includes the use of natural resources, emissions of greenhouse gases and other pollutants, waste management procedures, and initiatives to slow down climate change. A critical area where businesses may have a substantial influence on the environment is in their environmental performance, which is a crucial component of sustainability reporting. greenhouse gas emissions and energy use:

Businesses disclose their energy usage and greenhouse gas emissions, including carbon dioxide and methane. A company's impact to climate change and attempts to lessen its carbon footprint may be evaluated using this data. Use and management of water:

Businesses provide information about their methods for managing and using water, such as water withdrawals, water conservation measures, and wastewater treatment activities. Waste management: Businesses disclose information on how they generate and manage trash, including the volume of garbage they produce, how they dispose of it, and the steps they take to cut back on waste through recycling and other programs. Businesses can disclose their impacts on biodiversity, such as their efforts to save and recover species and ecosystems. Environmental compliance: Companies may report on how they adhere to environmental laws and rules, as well as any fines or penalties they have been assessed. Businesses may also create environmental performance goals and report on how well they're doing at achieving them.

For instance, a business may establish a target to cut its greenhouse gas emissions by a specific percentage by a specific year and track its progress. Overall, environmental performance is a crucial component of sustainability reporting since it offers details on the environmental effect of a firm and its attempts to lessen that impact. Companies may show their dedication to sustainability and give their stakeholders necessary details by disclosing their sustainability impact.

2.7.7 Social performance in sustainability reporting:

A company's social performance is defined as how it affects society and stakeholders, including its workforce, clients, communities, and suppliers. A vital area where

businesses may have a substantial influence on people's lives and well-being is social performance, which is why it is a crucial component of sustainability reporting.

Human Rights and Labor Practices:

Businesses disclose information on their labor standards, employee health and safety rules, and diversity and inclusion procedures. Reporting on your efforts to uphold human rights in your supplier chain and company is another option.

Community involvement and development:

Businesses provide information about their actions aimed at fostering a sense of community, such as charity giving, volunteerism, and other initiatives. We may also discuss our initiatives to diversify our suppliers and generate jobs in order to provide our communities more economic opportunity.

Your Health and Safety:

Businesses provide information on their efforts to guarantee the security and caliber of their goods and services, as well as on the rules they have in place to safeguard the privacy and data of their clients.

2.7.8 Sustainable Economic Development

The process of creating economic growth while simultaneously preserving the long-term welfare of society and conserving the environment is referred to as sustainable economic development. In order to build a balanced and resilient economy, it entails combining economic, social, and environmental issues. The important ideas, theories, and empirical investigations pertaining to sustainable economic development are summarized in this survey of the literature.

Developing a Concept for Sustainable Economic Development:

As a result of the realization that conventional economic growth models frequently have detrimental social and environmental effects, the idea of sustainable economic development came into being (Smith, 2010). To conceptualize sustainable economic development, a number of frameworks have been created. These include the sustainable development goals (SDGs), the capabilities approach, and the triple

bottom line approach (which emphasizes the economic, social, and environmental dimensions).

organization (United Nations, 2015).

Drivers of Sustainable Economic growth:

A variety of elements have an impact on sustainable economic growth. Technology innovation and adoption (Aghion & Howitt, 2009), human capital investment (Barro, 1991), infrastructure development (Aschauer, 1989), effective governance and institutions (North, 1990), financial access (Beck, Demirgüç-Kunt, & Levine, 2000), and sustainable resource management (Dasgupta, 2001) are a few of the major forces mentioned in the literature. These factors change depending on the environment and interact with one another.

Sustainable economic growth and the reduction of poverty :

The ability of sustainable economic growth to reduce poverty is a key component. The relationships between economic development, poverty alleviation, and income inequality have been the subject of several studies (Ravallion, 2001; Dollar & Kraay, 2002). The literature indicates that inclusive growth, job creation, and social protection programs should be prioritized in sustainable economic development initiatives. decrease of poverty (UNDP, 2018).

Sustainability of the environment and economic growth

Significant scholarship has been devoted to the environmental aspect of sustainable economic growth. Researchers have looked at how economic activity affects ecosystems, natural resources, and climate change (Stern, 2007; Rockström et al., 2009). Additionally, they have looked at ways to promote green technology, renewable energy sources, and circular economy ideas in order to uncouple economic progress from environmental degradation (Ellen MacArthur Foundation, 2012).

Social Aspects of Economic Development That Is Sustainable:

Sustainable economic growth requires social concerns. In order to achieve lasting results, the literature highlights the significance of social justice, gender equality, and inclusive institutions (UNESCO, 2019). To enhance human well-being and foster social cohesiveness, it emphasizes the need for investments in social infrastructure, healthcare, and education (World Bank, 2018).

Institutional and governmental roles:

Institutional and governmental structures that are effective are essential for sustainable economic growth. The rule of law, open and accountable institutions, and democratic decision-making procedures are all highlighted in the literature (Kaufmann, Kraay, & Mastruzzi, 2010). Studies have also looked at the effects of political stability, regulatory frameworks, and corruption on the results of sustainable development (Mauro, 1995; Acemoglu & Robinson, 2000).

Global Challenges and Sustainable Economic Development:

The literature investigates the connections between global issues including climate change, biodiversity loss, and societal

2.7.9 Supply Chain Management (SCM):

Businesses disclose their initiatives to guarantee ethical sourcing and procurement practices, including their supplier diversity, SCM, and SSP policies. Businesses can disclose their charity giving and social investments, such as their efforts to assist social and environmental concerns through grants, impact investments, and other programs. In general, social performance is a crucial component of sustainability reporting since it tells us about how an organization affects society and how committed it is to resolving social and environmental issues. Companies may show their dedication to sustainability and give stakeholders relevant information by disclosing social performance. Governance effectiveness:

This covers topics including executive salary, board makeup, risk management, and transparency. ESG reporting can be done in a variety of ways, such as standalone reports, integrated reports, sustainability reports, and financial statement disclosures. The Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB), and the Task Force on Climate-related Financial Disclosures are just a few of the frameworks and standards for ESG reporting (TCFD). A growing number of investors are incorporating his ESG criteria into their investing strategies and considering his ESG information when making decisions. ESG reporting has thus grown in importance as a tool for businesses looking to obtain financing as well as draw in and keep investors. Companies that do not emphasize ESG reporting run the danger of losing the confidence of their stakeholders and incurring reputational harm as ESG problems continue to gain in relevance.

Materiality:

To ensure that they deliver pertinent and usable information, businesses should concentrate on reporting information that is vital to their stakeholders. The term "materiality" refers to the significance of data to readers of financial or sustainability reports. In other words, significance is the point at which information crosses a threshold and becomes significant enough to have an impact on a user's choice. Since it directs businesses in choosing which information to disclose and how to prioritize that information, materiality is a key concept in accounting and sustainability reporting. In financial reporting, materiality is typically referred to as the quantity or kind of item that affects the user's choice of action. For instance, if a user decides to invest in a firm as a result of a corporation's refusal to disclose significant amounts of debt, this might be a severe issue. The materiality of an issue in sustainability reporting is established by its significance to the company's stakeholders. This includes concerns for our staff, clients, vendors, investors, regulators, and local communities. Environmental effect, labor practices, human rights, community involvement, and product safety are important sustainability problems. In order to give its stakeholders information that is pertinent and helpful, companies should give priority to reporting on these crucial issues. Stakeholder engagement is a common step in the process of determining materiality in sustainability reporting. During stakeholder engagement, businesses collaborate with stakeholders to comprehend their hopes and worries. Companies may identify and rank important sustainability concerns with the aid of this engagement approach, which also helps them make sure that their reporting is pertinent to and valuable to their stakeholders. In conclusion, materiality is a critical accounting and sustainability reporting concept since it directs businesses in deciding what information to disclose and how to prioritize that information. To give stakeholders information that is pertinent and helpful, businesses should give priority to reporting on important themes.

2.7.10 Integrated Reporting:

Another kind of accounting and reporting that has evolved recently is integrated reporting. In order to create a more complete view of a company's performance, integrated reporting combines financial, social, and environmental data into a single

report. An integrated report "combines key information about an organization's strategy, governance, performance, and prospects in a way that reflects the economic, social, and environmental contexts in which it works," according to the International Integrated Reporting Council (IIRC). A relatively recent concept called "integrated reporting" aims to compile both financial and non-financial data into a single report. The paradigm acknowledges that financial data by itself falls short of explaining a company's entire performance and effect. Companies may provide stakeholders a more thorough view of their performance by including sustainability information into financial reporting. A methodology called integrated reporting integrates financial and non-financial data into a single report. Companies may provide their stakeholders a more comprehensive view of their entire performance by integrating sustainability information in their financial reports. Integrated reporting, per KPMG (2017), is becoming more popular among businesses since it provides advantages like: B. A more comprehensive understanding of a company's performance, improved stakeholder communication, and more transparency. To present a full view of their performance, including both financial and non-financial data, businesses should adopt an integrated reporting system.

2.7.11 Accounting and sustainable development

By providing the required frameworks and tools to monitor and report environmental, social, and economic performance, accounting plays a significant role in sustainable development. Accounting enables businesses to recognize and control their social and environmental consequences as well as to evaluate the possibilities and risks associated with sustainability-related issues.

Sustainability reporting: The Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB), two accounting frameworks, offer guidelines for businesses on how to report their performance in terms of the environment, society, and the economy. Companies may give their stakeholders consistent, comparable information on their sustainability performance by adopting these frameworks.

Accounting for the environment: Accounting for the environment entails calculating the costs and benefits of a company's activities on the environment. They include the costs of pollution and resource depletion as well as the advantages of sustainability and the environment. Environmental accounting may provide businesses a clearer

understanding of their environmental effect and help them make decisions about sustainability-related concerns.

Social accounting is monitoring and disclosing a company's social performance, including its effects on many stakeholders, including its workers, clients, and communities. Businesses may better understand their social implications by using social accounting, which also enables them to spot areas for development in labor practices and human rights, for example.

Accounting generally plays a crucial part in promoting sustainable development by offering the instruments and structures required to assess and report on environmental, social, and economic performance. Companies may show their dedication to enhancing sustainability performance and generating long-term value for their stakeholders by utilizing these methods. This section demonstrates what is required to explain sustainable development using a two-step approach. I'll start by attempting to clarify the problems that fall under the heading of sustainable development. Second, we interpret these issues into the context of accounting, beginning with Section 2. This strategy aims to more clearly differentiate claimed sustainable development accounting from social and/or environmental accounting.

The literature does not consistently draw a line between sustainable development accounting and social and environmental accounting. Yet, the direction of the argument given in this work depends on the distinction between these two (certainly linked) regions. There is, however, no literature in existence that makes an effort to explore this difference. As a result, we began to consider the accounting and accountability concerns that may arise in the context of sustainable development by drawing on the reputation of the book. Colleagues who likely had suggestions for ways to explain sustainable development were specifically sought out by Unerman et al. (2007) for their perspectives.

Due to the volume of chapters, many writers have not specifically addressed the distinction between social and environmental accounting and sustainable development accounting, which fell under his two categories (in fact, they frequently use the words interchangeably). Initially, while making contributions, we ask whether the activities that reflect social and environmental reasons could refer to viable explanations for sustainable development. Some people drew attention to the confusion. She "was not

sure that there was such a thing as a sustainability report [so she provided]," as Buhr (2007) notes. A chapter explaining the background and justification for something that may never materialize. He suggested that there is a steady change at the level of analytical scales and performance standards as we go from environmental accounting to sustainable development. The phrase "incremental change" really reflects what Thomson (2007) said: "Now is the time to get into a genuine debate about whether sustainable accounting is a coherent and significant subject of study in its own right (p. 34). Moreover, he issues a cautionary note, saying that when sustainable development accounting is developed, it "only becomes an attractive empirical area for accounting and finance scholars to turn on their empirical and theoretical microscopes." 2007 Thomson. Keeping these insights in mind, we take into consideration two of his points below to more precisely separate social and environmental accounting from accounting for sustainable development.

Who "counts" in each survey (i.e., from whose perspective the question is posed) and how complex the sustainable development accounting field is are also discussed. It cannot be maintained that by taking these two factors into consideration, one can determine what sustainable development accounting should be. Instead, this research poses issues that show what current accounting alone could do (as Thomson, 2007 hopes), if it were to be developed (interactive framing, Thomson & Bebbington, 2004; see Thomson & Bebbington, 2005). a distinct and reliable field. Recognizing that each element develops concurrently with the others, each factor is taken into account individually. Moreover, they create the kind of theory building that is possible in this situation. Social and environmental accounting has unmistakably embraced pluralism in its search of "who matters". The importance of stakeholder information rights for the establishment of a more diverse environment is thus not unexpected. But, in order to define a stakeholder, the issue domain (or entity) that can decide the stakeholder's rights must also be defined. This is largely determined by reference to units in accounting. A unit is itself defined by law in some way (the "usual" unit of analysis for accountants). Similar to this, the relative strength of influence on the entity in issue generally determines how the impact is felt by stakeholders and/or which stakeholders demand organizational action. (See to Mitchell, Agle, and Wood, 1997). Naturally, this has resulted in the creation of stakeholder theories that identify "who counts," concentrating on the degree to which the legitimacy of the institution in issue is established and upheld.

In contrast, the literature on sustainable development expresses concern for those who are negatively impacted by existing policies, including the environment itself, future generations, and the current generation's least wealthy members. They might be seen of as participants in sustainable development initiatives, which raises the question of who, or what mix of who, is responsible for the conditions that result in harm. This has a more intricate solution. because these issues are neither caused or sustained by a single organization. Rather, a number of institutions work together to shape these results (including organizational forms). This is due to the possibility that the questioned entities' descriptions of sustainable development may be grounded in these socioeconomic arrangements (rooted in diverse historical, legal, and cultural contexts). suggests. This includes sizable for-profit businesses, which are often the subject of accounting study, but only in cases when those businesses are subject to regulation by organizations (like capital or capital market providers) that could behave in an unsustainable way. It also covers the impact on them. Also, paying attention to how firms (such as family businesses, social enterprises, and the public sector) behave and report their finances could give greater insight into potential areas for reform. Companies having stringent limitations that are listed.

Together, these points support the need for continual research into the setting in which the organization functions. For instance, you must comprehend how performance and/or reporting requirements are created if you want "better" reporting on sustainable development (e.g., O'Sullivan & O'Dwyer, 2009). Also, we can take into account some alterations that are required (but insufficient) for less sustainable operations, such as the implementation of significant legislation or regulations or natural disasters. Similar to this, taking into account potential prospects for change at the national or sectoral level and how this can effect particular groups Solid wisdom. Lastly, examining the work done by the public sector might be beneficial (because these activities help to regulate and develop society) (for a summary, see Ball & Bebbington, 2008). Such a strategy would lessen the emphasis placed on businesses (listed corporations) whose pursuit of sustainable development is more troublesome, at least until the institutions around them are reformed.

Her second point of contrast relates to the manner in which researchers are provided with challenges. As was already said, social and environmental accounting considers the elements most directly connected to the operational considerations of major

commercial organizations. This was concentrated on the organization's operational operations, including environmental cost routines, performance management, strategy implementation, and supply chain analysis, in addition to the reporting activities stated above. Similar to this, the effects of new markets (such socially responsible investment) at work significantly emphasize these markets' effects and how they relate to current investment and governance problems. Water and carbon accounting are two of the many issues raised by the Sustainable Development Agenda (also known as WEHAB), particularly now that the market has changed and brought these issues to the corporate level. Special issues on carbon were published in the *Accounting, Auditing and Accountability Journal* and the *Journal of Cleaner Production* in 2011 and 2012, respectively. Unfortunately, certain elements are lacking as a result of this framing (Bebbington & Larrinaga, 2008). Going back to the literature on sustainable development, the nitrogen cycle and the loss of biodiversity are the two most globalized planetary processes (see Rockstrom et al., 2009). The impacts of nitrogen cycling are still not reflected in tissue research, despite the fact that there is a growing body of work on biodiversity (Jones, 1996; Jones, 2003; Lamberton, 2000 and 2013 special issues of the *Accounting, Auditing and Accountability Journal*). not. Agriculture is a sector where you may link (operationally) (or through food as a research focus). These study voids appear to be caused by accounting scholars' lack of exposure to environmental problems stemming from sustainable development.

Accounting is neither systematic nor pro-active, with the exception of a few studies on fair trade and human rights (see McPhail & McKernan, 2011 and other papers in the special issue of *Critical Perspectives on Accounting* in 2011). In the social sphere, a comparable circumstance can be observed. It has been important to take social justice issues into account. Our claim is that if we start with sustainable development, we can leverage the accounting field, which already deals with these many challenges, to investigate a larger variety of related ones.

Similar to this, if a new line of inquiry is taken, a separate set of hypotheses can serve as a reference point for scientists. The value of theories that demonstrate the potentially lengthy cycles of behavioral change (and related rationality). The government field is one that has been utilized to inform several business sectors (including the accounting industry) (Bebbington & Thomson, 2007; Frame & Bebbington, 2012; Gouldson & Bebbington, 2007; Spence & Rinaldi, 2014). This

theoretical framework broadens the focus of study to include the role that certain technology and practices (such as accounting) play in governmental operations (and their formative context implications). It should also be important to consider theories that describe how organizational practices converge and how moments of change happen (and applicable to organizations themselves). Additionally, by concentrating on industries and nations, we may spot instances when nations (not only those in the Pacific area) have abundant natural resources, but their potential for effective governance is constrained. Private enterprise activity is rather poor. Private enterprise activity is rather poor. In such cases, private regulatory tools may provide alternatives for options to regulate and monitor business activity (e.g. sectoral self-regulation, although this may also be problematic). (For an illustration, see Bebbington, Kirk, & Larrinaga, 2012). Governments may be able to restrict (at least somewhat) the impact of these firms by drawing lessons from private regulatory mechanisms (such as the UN Guidelines for Responsible Investing and the Global Compact). To the best of our knowledge, no systematic effort has been made to use the current legal frameworks to impose some kind of responsibility on businesses whose consequences are seen negatively from the standpoint of sustainable development. Although I don't claim that these are the only options, this kind of framing technique tends to move attention away from the entity's account and toward the environment that influences the entity's conduct.

The literature has been developed to address methodological queries about how to approach the problem of sustainable development, in addition to taking certain theories into account to comprehend and respond to research problems. rice paddock. Sustainability science is the name given to this method. This strategy does not imply that there is less demand for special knowledge. In fact, this is seen as a requirement for introducing information into more scientifically oriented sustainability study. The complexity, interconnectedness, and ethical pervasiveness of the challenges we face prevent advocates of sustainability science from properly addressing them without the development of new research techniques. asserts that it isn't feasible. The next section goes into further information about this strategy's qualities.

2.7.12 **Economic Development:**

Economic development is the steady expansion of a nation's economy via improved productivity, inventiveness, and job possibilities. The sources listed below talk about economic growth. D. Acemoglu and JA Robinson (2012). *The causes of poverty, money, and power are why nations fail.* exchanging crowns. According to Acemoglu and Robinson, the presence of inclusive economic institutions that provide people a sense of ownership, incentives, and possibilities for investment and innovation is what drives economic growth. Contrarily, exploitative economic regimes restrict these prospects, resulting in underdevelopment and poverty. The R.J. (1997). *Cross-border empirical study on the factors influencing economic development*, MIT Press. Barro examines the elements that each nation's economic growth is influenced by in this research. He thinks that for sustainable economic growth, political stability, education, and the rule of law are crucial. Global Bank (2019). *Job transformation*, The 2019 World Development Report. Global Bank. His 2019 study for the World Bank focuses on how the nature of work is evolving and how it affects economic growth. To achieve equitable growth, the research emphasizes the necessity for investments in social protection, technology, and human capital. PM Romer (1990). *Endogenous technological change*. *Journal of Political Economics*, 98(5), S71-S102. The notion of endogenous technological change, which emphasizes the importance of innovation and technology in fostering economic growth, is introduced by Romer's seminal study. He contends that innovation and technology diffusion strategies are crucial for long-term economic growth. the United Nations (2015) *alter the world: The Sustainable Development Goals for 2030*. the United Nations. The necessity for inclusive, sustainable, and fair economic development is emphasized in the United Nations 2030 Agenda for Sustainable Development. The 17 Sustainable Development Goals (SDGs) on the agenda are intended to alleviate poverty, foster sustainable economic growth, and guarantee social and environmental sustainability. We want to help emerging nations' financial, economic, and social situations as a branch of economics. The development economy aims to improve everyone's life by addressing issues such as health, education, working conditions, national and international legislation, and market circumstances. She has a job in both the public and private sectors. Urban areas that are either integrated into a single enterprise or many functional sections of the city or are actively experimenting with ICT are referred to as "smart" in a similar manner. The realization of social advantages results from economic progress. In other words, it is not a program to create jobs but a tool to expand the economy and raise

citizen wellbeing. Many viewpoints on what "economic progress" is. Economic development is the progression of an economy from developing to developed nations, with low-income nations rising to the top of the economic food chain. The goal of development economics is to comprehend and create macroeconomic and microeconomic policies that will help impoverished nations escape poverty. Due to the various cultural, social, and economic contexts present in every nation, the implementation of development economics is challenging and complex. Raising the level of living is, in a nutshell, the goal of economic growth.

In the frame's initial section, the two prevailing theories of economic growth are introduced: After that, it covers some of the growth theory's most significant side effects while using an ecologically beneficial resource. The focus is on how the kind of landscape pollution influences both the role of discounting and the optimum solution. As a result, there are some exemptions from the finest environmental taxes. The growth theory's implications for long-term economic growth are discussed, as well as the idea of resource scarcity and its possible effects. Additionally, we analyze the conventional theory of economic development that excludes Under the first two subsections below, natural resources prepare the ground for the following discussion of growth models that take into account natural resources parts. We shall use theories that are believed to the cornerstone of how human behavior and the environment interact in this study. The concepts economics, institutional, and political are related to Environmental and neoclassical economics. The review of the literature in this post examines the grand theory in a variety of ways, as it forms the foundation for various useful ideas which are employed to evaluate environmental deterioration.

2.7.13 Characteristics of Developed and Developing Economies

According to non-economic thinking, a nation's evolution is not just dependent on its size or military prowess. A lot of A country's status as developed or developing is determined by a number of variables. economically. This paragraph offered some interesting information about the differences between industrialized and underdeveloped nations.

2.7.14 Developing Economies

Political instability, high levels of corruption, high unemployment rates, low per capita income, extremely high fertility rates that lead to rapid population growth, etc.

are all factors that the world's economies are still working to lessen. The subsequent obstacles to economic expansion are shown in the figure below, and rising or developing economies are currently working to overcome them.

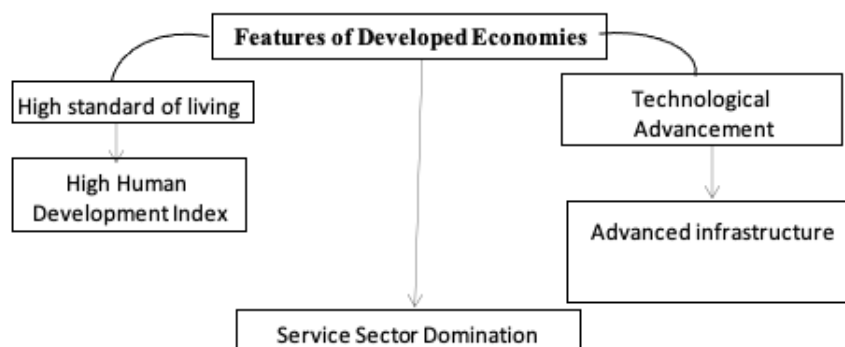


Figure 2: Author's compilation

High standard living: Developed economies are generally associated with high living standards, which are frequently reflected in higher income levels, better infrastructure, and more access to resources and opportunities. However, a high quality of life can differ greatly between different countries, areas, and even communities within a same nation. A developed economy offers its citizens access to high-quality housing, healthcare, education, and other necessities, as well as a high standard of living.

High Human Development Index: The UN came up with the concept. This statistic is employed to evaluate a countries degree of development of people. HDI measures economic development on a scale from 0 to 1, with 1 being the most developed. GDI and GNP often only divulge details regarding a nation's output and revenue. The HDI evaluates financial expenditures on social development metrics including fitness and instruction. The possibility children's fatality, one's ability for obtaining a decent instruction and the amount of years of school was also given attention. HDI may additionally be impacted by the kids' the capacity to put their ideas into practice as taught in class to circumstances in the actual world. To calculate a countries HDI, one might combine any two or more of these factors, as well as several extras. HDI is broader than GDP or GNP. Residents may rely on it because you can complies with their criteria. Any modern civilization should see high levels of literacy,

education, and healthcare as the norm. Excellent medical treatment, a small premature death percentage, and elevated educational attainment and education are frequently mentioned while discussing the HDI.

Technological Development: In a developed nation, it is typically easy to observe the technological improvement that has been made. They have access to more advanced technology, like the internet, electric automobiles, and other advances, and are becoming more industrialized.

Industry of Service Predominance: There is a service-based industry gauge of a countries entire production of goods and activities concerning to services. These include things like food delivery, dining establishments, business services, and freely available software, to name a few. More and more of these programs concentrate on helping people in wealthier nations. This is because providing these services will eventually encourage economic growth. The availability of top-notch products and services will probably boost economic production.

Advanced infrastructure: Facilities, procedures, and physical and organizational structures that assist the growth of the country's social and economic a country or region are referred to as "advanced infrastructure."The internet, telecommunication networks, water and sanitization systems, transportation systems (like roads, trains, airports, and seaports), energy infrastructure (like power grids, pipelines, and renewable energy sources), and other infrastructure and services that support economic activity and quality of life are examples of what may fall under this category.

2.7.15 **Developing Economies**

Political instability, high levels of corruption, high unemployment rates, low per capita income, extremely high fertility rates that lead to rapid population growth, etc. are all factors that the world's economies are still working to shrink. This section obstacles to economic expansion are demonstrated below figure, and rising or emerging countries are currently working to overcome them.

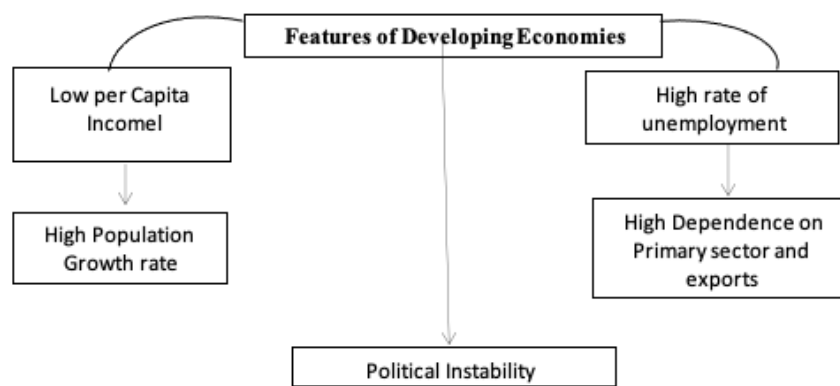


Figure 3: Author's compilation

Low Real Per Capita Income: One of these economies' most defining characteristics is the frequently low real per capita income levels found in emerging nations. Their population is dispersed across an extremely little amount of actual revenue. Low levels of savings and investment are the outcome. They find this to be problematic. It implies that the typical worker does not earn enough to save or invest. They use all of their income to support their way of life. Thus, an endless cycle of destitution results is created that overwhelmingly most individuals find challenging to overcome. Absolute poverty, which is the global benchmark of poverty, affects a disproportionately large percentage of people in emerging countries.

High Population Growth Rate: One such attribute is the fact that developing nations frequently have sizable populations or high rates of population growth. This occurs frequently because individuals feel that having more children would expand their family's labor force and, thus, their capacity to earn more money, and since there aren't many choices for family planning. Healthcare breakthroughs may be responsible for the recent rise in birth rates and drop in mortality rates.

High Rates of Unemployment: Throughout the year, unemployment rates in rural areas might fluctuate significantly. However, because unemployment is a more difficult problem, more actions are required. These countries are usually referred to as developing nations while having significant problems, high joblessness paces for instance.

Uncertainty in politics and fraud: Political instability is a problem in most countries because of terribly tainted and skewed is the system as a whole. Nations such as Nigeria and others possess certain areas where rebels and bandits have been paid a ransom, which would hinder free commerce and other economic activities that are essential for economic progress in areas where tranquility is absent.

High reliance on exports and the primary sector: In nations with low per capita incomes, rural areas are home to more than 75% of the population. The composition of demand changes as a result of rising Wealth levels, resulting spurs growth initially then in the industrial sector subsequently in the field of services. The main industry produces a significant portion of the country's overall results and makes a major contribution to exports.

CHAPTER III

Theoretical Framework

3.1 Introduction

A theoretical framework is a collection of concepts, hypotheses, guidelines, or models that forms the basis for understanding and exploring a particular research topic or subject. It provides scholars with a theoretical framework for interpreting and analyzing their data as well as aiding in the formulation of their research questions and hypotheses.

Theoretical frameworks have a variety of applications in academic study, including:

Support for concepts: A theoretical framework helps define and conceptualize the key concepts, variables, and linkages relevant to a study. It provides a framework for organizing and arranging the research by creating a systematic and consistent structure.

The study is contextualized by theoretical frameworks by placing it in a broader academic context.

By stressing any gaps or future study subjects, they enable researchers to place their work within previously defined theories, models, or bodies of knowledge.

The design of research methodology, which entails picking the optimal methods for gathering data, research instruments, and analytical approaches, is aided by theoretical frameworks. They provide guidance on how to operationalize concepts and variables for empirical study.

Researchers have a lens through which to view and evaluate their results thanks to theoretical frameworks. They provide researchers with a collection of concepts and linkages that assist them in analyzing their data, identifying trends, and drawing wise conclusions.

Theoretical frameworks provide a basis and a universal language for communicating and disseminating research findings. They give researchers the option to connect their results to earlier works, concepts, and scholarly conversations, enhancing the relevance and validity of their research.

The type of research question, the disciplinary context, and the study's specific goals all have an impact on the theoretical framework that is selected. Researchers may develop new frameworks expressly for their research objectives or employ theories, models, or conceptual frameworks that already exist in their field.

3.2 Triple Bottom Line:

According to John Elkington's Triple Bottom Line Framework, businesses should prioritize three bottom lines.

financially, socially, and environmentally. This paradigm acknowledges that a company's success is judged in terms of its social and environmental effect in addition to its financial performance. His three TBL aspects, commonly referred to as "People, Planet, and Profit," stand for the organization's social, environmental, and economic impacts. The TBL framework highlights the significance of sustainable development and encourages businesses to think about their social and environmental implications in addition to their financial success. As businesses look to align their operations with the Sustainable Development Goals, the TBL framework is becoming more and more popular as a tool for corporate sustainability reporting. The TBL framework aids businesses in determining how to enhance social and environmental performance while preserving financial viability. The TBL framework has its detractors who claim that it places too much emphasis on economic performance and makes it difficult to measure and compare social and environmental impacts. The TBL framework has grown into a crucial tool for businesses and organizations looking to incorporate sustainability into their operational procedures despite these concerns.

3.3 Stakeholder Theory:

According to the stakeholder theory, businesses must take into account the interests of all parties involved, including shareholders, clients, staff members, suppliers, and the general public. This paradigm acknowledges that businesses operate in a wider social and environmental context and must take into account how their actions will affect each stakeholder. In order to support their accounting and reporting procedures, businesses should collaborate with stakeholders to understand their expectations and concerns.

According to the stakeholder theory, companies must take into account the interests of all stakeholders when making choices in an effort to improve results for the company as a whole. This frequently runs counter to the conventional shareholder theory, which holds that an organization's main duty is to maximize shareholder value. The concept of stakeholders recognises the greater social and environmental context in which businesses operate and that their choices and actions may have effects that

go beyond their immediate financial results. It encourages businesses to think strategically and to take into account how their choices will affect various parties and society at large.

Recent years have seen a rise in the popularity of stakeholder theory, and many businesses are now incorporating it into their CSR programs. The degree to which an organization should prioritize the interests of different stakeholders and how conflicting interests can be balanced are still up for debate.

3.4 Financial Theory

It describes a collection of ideas, models, and fundamentals that provide as the foundation for comprehending and evaluating financial markets, investments, and choice-making. It offers a framework for comprehending the workings of financial markets, the thinking of investors, and the estimation of financial products.

3.4.1 Financial performance And Time Has a Value in Money.

A dollar is currently worth more than it will be in the future. owing to the possibility of earning interest or returns, according to the time value of money theory. It serves as the foundation for discounting potential cash flows and assessing investment possibilities.

The Time Value of Money (TVM) concept is closely related to financial performance in several ways. Here are some key relationships between the Time Value of Money and financial performance:

Investment Decision-making: TVM is fundamental to investment decision-making. When evaluating potential investments, financial managers use TVM principles to assess the present value of expected future cash flows. By discounting future cash flows to their present value, financial managers can compare the value of different investment options and make informed decisions that maximize financial performance.

Capital Budgeting: TVM plays a crucial role in capital budgeting, which involves evaluating and selecting long-term investment projects. Through strategies like net present value (NPV) analysis and internal rate of return (IRR), financial managers incorporate TVM principles to assess the success and feasibility of investment

ventures financially. Projects with positive larger than the needed rate of return in terms of NPV or IRR are considered financially viable and contribute positively to financial performance.

Valuation of Financial Instruments: TVM is used to value various financial instruments, such as bonds, stocks, and options. Bond pricing, for example, involves discounting future cash flows (interest payments and principal) at a suitable discount rate to determine the worth of the future bond. The fair value of stocks can also be estimated using TVM principles, considering future expected cash flows and required rates of return. Accurate valuation of financial instruments is crucial for determining the financial performance of investments and portfolios.

Overall, the The phrase "Time Value of Money" critical concept in financial performance analysis and decision-making. It enables financial managers to assess the value of future cash flows, evaluate investment opportunities, estimate the cost of capital, value financial instruments, and analyze cash flows. By incorporating TVM principles, organizations can make more informed decisions that contribute to improved financial performance.

3.4.2 Relationship between financial performance, risk, and return

Risk and Return: The correlation between an investment's amount of risk and its possible return. Financial theory investigates how traders evaluate risk, vary their holdings, and look for the right balance between yield and hazard.

Risk and Return Trade-off: In finance, there is generally a positive risk and reward are correlated. larger levels of risk have the potential for larger returns, whereas lower levels of risk have the opposite relationship tend to correspond to lower potential returns. Investors demand compensation for taking on greater risk, which is reflected in the form of higher expected returns. This trade-off implies that investments with higher expected returns typically carry higher levels of risk.

Financial Performance and Return: Financial performance is often measured by various metrics, such as profitability, return on investment (ROI), return on equity (ROE), and earnings per share (EPS). These metrics evaluate the ability of a company to generate profits and create value for its shareholders. Higher financial performance

is generally associated with higher returns, indicating that the company has effectively utilized its resources to generate profits and shareholder value.

Risk and Financial Performance: Risk has a direct impact on financial performance. Higher levels of risk can negatively affect financial performance by increasing the uncertainty of future cash flows, introducing volatility, and potentially leading to losses. However, risk can also provide opportunities for higher returns. Companies that effectively manage and mitigate risks while pursuing growth opportunities can achieve sustainable financial performance.

Risk Management and Financial Performance: Effective risk management practices are crucial for maintaining and improving financial performance. By identifying, assessing, and managing risks, companies can reduce the likelihood and impact of adverse events, protecting their financial performance. Robust risk management strategies can contribute to stable earnings, better capital allocation, improved operational efficiency, and enhanced shareholder confidence.

3.4.3 Financial Performance And Capital Asset Pricing Model (Capm)

A model that explains the connection between the expected return on an investment and its systematic risk (beta) is called the capital asset pricing model (CAPM). Based on the investment's risk in relation to the market as a whole, it aids in determining the proper expected return.

Financial Performance Evaluation the CAPM can be served as a tool to assess a companies profitability an investment or portfolio. By comparing the actual return of an investment with the expected return derived from the CAPM, investors can assess the performance relative to the level of systematic risk taken. If the actual return exceeds the expected return, the investment is said to have outperformed. On the other hand, if the actual return is lower than anticipated, the investment is considered to have underperformed.

The Using CAPM, one may calculate an investment's projected return depending on its systemic danger. It is used to evaluate financial performance, compare actual returns to expected returns, and estimate the cost of capital. It considers the compromises between risk and reward regarding money decision-making.

3.4.4 Financial performance and Portfolio Theory

Portfolio Theory was created by Harry Markowitz and highlights the value of diversity and effective asset allocation for risk management. It aids investors in building portfolios that optimize projected return at a particular degree of risk.

Developed by Harry Markowitz, explores the connection between earnings and the construction and diversification of investment portfolios. Here's how Portfolio Theory relates to financial performance: Portfolio Theory helps enhance financial performance through diversification, optimizing the risk-return trade-off, and constructing efficient portfolios along the efficient frontier. It enables risk management, evaluates performance through risk-adjusted measures, and contributes to more stable and resilient financial performance. These metrics provide insights into how well a portfolio has performed considering the level of risk taken, contributing to the evaluation of financial performance. contributing to more stable and consistent financial performance.

3.4.5 Financial Performance And Capital Structure Theory

Examines the best balance of debt and equity funding for a corporation, according to capital structure theory. In order to identify the capital structure that would increase the company's worth, it weighs the costs and advantages of debt and equity financing. grasp business banking, investment analysis, portfolio management, and financial markets, and other aspects of the discipline of finance begins with a solid grasp of financial theory. Decision-making, risk management, and the evaluation of financial instruments are all guided by it.

Capital Structure Theory explores the the connection among a business's financial performance and its mix of debt and equity financing. It suggests that the capital structure affects financial performance through factors such as the cost of capital, financial risk, leverage effect, flexibility, agency costs, and market perception. An optimal capital structure can enhance financial performance by reducing the cost of capital, amplifying returns, providing flexibility for growth, and maintaining market confidence. However, an unfavorable capital structure can increase financial risk and agency costs, negatively impacting performance.

CHAPTER VI

Data and Methodology

4.1 Introduction

The following part for the study endeavor focuses on giving a detailed analysis of the many methods, procedures, and strategies which was applied in putting together the crucial for the study's statistics. This part also provides a thorough evaluation and an analysis of the many statistical methods that was employed to analyze the secondary data amassed every step of the way course of this investigation.

4.2 Data and Source Types

The two main methods usually used by the bulk of research works to get their data are both the main and secondary sources for information collection. The latter, in the author's opinion, was the better course of action. The World Bank Data Base, the Federal Reserve Economic Data, the Global Green Growth Institute, and the International Monetary Fund are a few examples of online open sources that the author used to compile secondary data and acquire information. The study, which covered a 20-year period between 2002 and 2021, focused on ten diverse emerging nations including (Australia, Brazil, China, Colombia, Hungary, Indonesia, Japan, Nigeria, Peru, and Spain). The information was gathered as a succession of calendar years. For the purpose of gathering data for this study, financial performance utilized as a stand-in over development of accounting, Co2 emission, trading, green growth human capital and foreign direct investment.

Table 1: Variables measurements and source

Abb.	Variables	Definitions	Measurement Tool	Sources
FP	Financial Performance	Financial performance refers to a company's or organization's ability to generate profits, revenue, or other financial returns.	Financial Development Index	International Monetary Fund
FDI	Foreign Direct Investment	Foreign direct investment refers to investment made by a company or organization in a foreign country or economy.	Foreign direct investment, net inflows (% of GDP)	The World Bank Database indicators
CO2	Carbon Dioxide	CO2 Emission Trading is a market-based mechanism used to reduce carbon emissions by allowing companies to buy	Carbon dioxide emissions (kg per 2015 US\$ of GDP)	The World Bank Database indicators

		and sell emissions permits.		
GG	Green growth	Green growth refers to economic growth that is environmentally sustainable.	Green Growth Index	Global Green Growth Institute
HDI	Human Capital	Human capital refers to the knowledge, skills, and abilities of a company's or organization's workforce.	Human Capital Index Per Person	The Federal Reserve
T	Trade	Trade refers to the exchange or transfer of goods, services, or resources between individuals, businesses, or countries. It involves buying, selling, or bartering goods and services, typically in the context of economic activity. Trade plays a vital role	Trade % of GDP	The World Bank Database indicators

		in promoting economic growth, facilitating specialization, and fostering international relations.		
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4.3 Descriptive Statistics

Data may be summarized using descriptive statistics to make it simpler to understand. It contains elements such as the average (mean), the degree of dispersion (standard deviation), and the asymmetry or skewness of the data. To make it simpler to see trends in the data, descriptive statistics can also be shown as graphs.

Table 2 : Descriptive Statistics

	LFDI	LTRADE	LCO2	LHCI	LFDINV	LGG
Mean	-0.685763	3.76136	-1.127978	1.005303	0.804205	4.059096
Median	-0.597837	3.728656	-1.294195	1.005444	1.039248	4.066802
Maximum	-0.051293	5.126310	0.115021	1.279263	4.097476	4.253056
Minimum	-1.660731	3.031221	-1.707796	0.564706	-4.742113	3.748091
Std. Dev.	0.477854	0.421013	0.463476	0.190141	1.152435	0.123940
Skewness	-0.287006	1.476078	1.405757	-0.423442	-1.379906	-1.162603
Kurtosis	1.868934	6.338464	3.751350	2.695091	8.965933	4.203215
Jarque-Bera Probability	6.234100 0.044288	76.95969 0.000000	32.81792 0.000000	3.139456 0.208102	167.4345 0.000000	26.56045 0.000002
Sum	-63.77598	349.8786	-104.9020	93.49315	74.79105	377.4959
Sum Sq. Dev.	21.00772	16.30720	19.76255	3.326127	122.1858	1.413221
Observations	93	93	93	93	93	93

4.4 Evaluation of variables and variables

Secondary data were present in the World Bank Development Indicators database, Federal Reserve Economic Data, Global Green Growth Institute and International Monetary Fund in order to carry out this research. The collected data were split into

dependent factors and independent variables for the study. We made use of the dependent variable financial performance as a substitute for development of accounting, and our independent variables included Co2 emission, trading, green growth human capital and foreign direct investment.

4.5 Model Specification

The interaction between the dependent factor financial performance, as well as the unrelated factors, CO2 emission, trading, green growth, human capital, as well as the foreign direct investment bound test for co-integration, were estimated using the Augmented Dickey Fuller Model. If throughout time the variables were co-integrated, the ADF bound test was used to determine this, and an error correction model (ECM) then utilized to determine the way quickly they did so in the near future. All tests in this study—including the Unit root test, residual diagnostic test, Johansen Co-Integration Test, Panel Generalized Method of Moments, and Granger causality test—were also run using the E-views computer program. In addition, I fixed the multicollinearity in the model and assessed its dependability using the Jargue-Berra normalcy test, the Histogram normalcy test, the Breusch-Godfrey serial correlation test, and the Breusch-pagan-Godfrey heteroskedasticity test. We used the CUSUMSQ test in order to confirm the model's dependability at a 5% level of significance.

The model and operational variables requirements that are appropriate for the ADF that was used in this work are listed as follows:

Financial Performance (FP) Equation:

$$FP = f(GG, HC, FDI, T, CO2)$$

Where:

GG = Green Growth

HC = Human Capital

FDI = Foreign Direct Investment

T = Trade

CO₂ = Carbon Dioxide Emissions

i = Number of variables in the Model.
 j = is the number of time lags.
 p = Dependent Variable Lag Values.
 q = Regressor Variable Lag orders.
 μ_i = Error terms.
 ϵ_{it} = Vector of the Error terms.

4.6 Econometrics Model

4.6.1 Unit Root Analysis

Before any research project may employ the ARDL model, It is a unit root test. requirement that has to be fulfilled. Additionally, it determines whether the data are consistent. The ARDL approach is appropriate if the unit root is statistically significant at 1%, 5%, or 10% at any level or initial difference. Any initial difference can be subject to this criteria. The ARDL bound test was used in combination with ARDL to conduct the study. As a result, finding the unit root was the initial step in the procedure. To ensure that the factors that were looked at were properly integrated, our results have been verified using the augmented Dickey Fuller (ADF), the Philips-Perron (PP), and the Dickey-Fuller Generalized Least Squares (DLS) models. The subsequent two unique the case examples used to explore the unit root:

- i. The constant Scenario and,
- ii. The Constant and Trend Scenario

Such were used to demonstrate Whether the factors are stable and the most likely possibility is that it is constant with trend plausible one for my survey because it accounts for many adjustments in addition to potential social and political issues factors.

4.6.1.1 **Augmented Dickey-Fuller Test**

(1979) Dickey and Fuller constructed and created a software for computers that can identify if a variable has been subjected to an a priori generator and or not the variable has a to use a unit root verify their theory. Hamilton (1994) offers four case examples to show the relevance and application of the expanded Dickey-Fuller test. The variable in issue has just one unit root at any point throughout the distribution, according to the null hypothesis' underlying premise. Regardless of the particular circumstances, this is accurate. Whether or not the null hypothesis includes a drift component, and whether or not the regression employed includes a constant term and a temporal trend to construct the second's test statistic technique are the key distinctions between the two approaches. Whether or not a drift term is incorporated into the void assertion depends on both of these factors. It fundamentally uses the same methodology nevertheless, as the Dickey-Fuller test unlike the previous test, this time instead of the model applying to it, the reverse occurs.

Dickey-Fuller GLS Test

To ascertain if a series has a unit root, the enhanced Dickey-Fuller and Phillips-Peron tests have traditionally been used in time series modeling. However, more recent tests are now accessible with statistical properties that much outperform those of the earlier tests. In their econometric study from 1996, Elliott, Rothenberg, and Stock (ERS) created an effective test by substituting a generalized least squares (GLS) explanation for the Dickey-Fuller test statistic. As a result, a reliable test was created. An efficient test was created as a result of this. By illustrating how their test was improved, they prove that it outperforms the original Dickey-Fuller test in terms of sample size and power sizes. They updated them on their methods through these researchers. Elliott et al.'s 1996 research in particular shows a significant boost in power when an unknown mean or trend is present, according to their "DF-GLS" test the test series is regressed using GLS the residual series is trending with a steady and linear trend, and then employed in a standard Dickey-Fuller regression. The two types of DF-GLS are GLS demeaning and GLS trending. Both of these techniques may be used to complete the standard Dickey-Fuller test with or without a trend term. The occurrence of a constant is the sole event that occurs After the initial stage of regression using GLS demeaning, the residual series is utilized as the regress and in a Dickey Fuller regression. The GLS

demeaning option is chosen when the no trend option is employed in the Strata implementation of the DF-GLS test (Baum, 2000) which has the The default setting for GLS trends is used. In order to make sure that the stationary of the data was appropriately shown in a range of circumstances, the constant and constant with trend scenarios of the Dickey-Fuller generalized linear model were examined. The conclusions of this study's unit-root test component study were supported by these analyses.

4.6.1.2 Test of Philip-Peron

A test called the Phillips-Perron test sort of test used in statistical analysis to determine if there is a unit root or not. It happened given the names Pierre-Perron in the works of Peter C. B. Phillips honor done by two mathematicians collaborated when it comes to statistical analysis. The names of these two guys are Pierre-Perron and Peter C. B. Phillips. As a result, while analyzing The initial step in integrating for time series is used in examining likelihood that a different theory would be rejected. The claim states the first order of integration cannot be used to integrate a time series.

$$y_t = c + \delta t + a y_{t-1} + e(t) \dots\dots\dots (eq1)$$

Null hypothesis states that the value can only be one. In order to limit the growth characteristics of series to zero, the variants of the test that apply to series with different growth characteristics are created to limit the drift and deterministic trend coefficients of the series, c and δ . This is done to reach the objective of bringing the growth characteristics of the series to zero. Dickey-Fuller statistics were used to modify the tests in order to account for the serial correlations that emerge during the innovation process. (t).

4.6.2 Co-integration Test

The co-integration test is a statistical method for determining the long-term relationship between two or more non-stationary time series variables. Robert F. Engle and Clive W.J. Granger created the idea and statistical method of co-integration. Granger and Engle did the groundbreaking research on co-integration in the early 1980s. It may be used by researchers to ascertain if a linear combination of these variables is stationary, indicating a stable equilibrium or a relationship to a long-run equilibrium. The concept of co-integration is crucial when examining economic and

financial data since these datasets usually contain variables that exhibit patterns and may not be stable in their initial state. Co-integration enables researchers to look at the underlying connections between these variables, even if they individually display non-stationarity. These variables are typically integrated with the same order (I(1)) to achieve stationarity, however differencing can also be required. A long-run equilibrium link between the variables is present if the co-integration test result is significant. If the co-integration test result is non-significant, there is likely no co-integration and no shared long-term association between the variables. Co-integration analysis has applications in econometrics, finance, and macroeconomics. It enables researchers to investigate the interactions and dynamics between many factors, assisting in the development and assessment of economic theories as well as forecasting and policy analysis. Co-integration and Error Correction: Representation, Estimation, and Testing is a major study they co-authored that was published in the *Econometrica* journal in 1983. In order to find long-term correlations between non-stationary time series variables, this study established the theoretical framework, estimate techniques, and testing procedures. It also lay the groundwork for co-integration analysis. Clive W.J. Granger and Robert F. Engle received the 2003 Nobel Prize in Economic Sciences for their substantial contributions to the advancement of co-integration analysis.

4.6.3 Generalized Method of Moments

The parameters of econometric models are estimated statistically using the Generalized Method of Moments (GMM). Early in the 1980s, Lars Peter Hansen and Robert F. Hodrick created it.

When the assumptions of ordinary least squares (OLS) estimation are broken, such as when endogeneity, measurement errors, heteroscedasticity, or serial correlation are present in the data, the GMM technique is frequently utilized. It offers an adaptable and reliable framework for using moment circumstances to estimate model parameters.

Moment conditions are dependent on both the data and the model's parameters and are used by the GMM. The limitations imposed by the underlying economic theory or model are captured by these moment circumstances.

Typically, they are expressed as sample moments of functions involving the parameters and the observed variables.

Instrumental variables: To overcome endogeneity difficulties, GMM frequently uses instrumental variables. Exogenous variables known as instrumental variables are those that are not directly connected to the dependent variable but are correlated with the endogenous explanatory factors. By adding more variety to the explanatory variables, they support the validity of the moment conditions.

By locating values that minimize the difference between the sample moments and the corresponding population moments suggested by the model, GMM estimates the model parameters. The criteria function for this optimization process must be specified, and it is commonly based on the quadratic form of the moment conditions.

To solve for the parameter estimations, iterative optimization procedures like the method of moments or the modified method of moments are frequently used.

Efficiency and identification: By selecting moment conditions that are both valid and informative, GMM strives to accomplish efficient estimation. The weighting matrix that compensates for the accuracy of the moment conditions is taken into consideration by efficient GMM estimators while optimizing the criteria function. To guarantee that the parameters may be accurately approximated from the moment conditions, identification requirements are required.

In econometrics and related disciplines, the Generalized Method of Moments has gained popularity as a common estimate approach because it offers a flexible and effective framework for estimating complicated models and resolving data problems.

4.6.4 Residual Diagnostics Test

By studying the characteristics of the residuals (i.e., the discrepancies between the observed values and the projected values of the dependent variable), a set of statistical tests and procedures known as residual diagnostics may be used to evaluate the reliability of assumptions made in a regression model. Researchers may assess the model's goodness-of-fit using residual diagnostics, find any issues or assumptions that have been broken, and guarantee the accuracy of the calculated coefficients.

The testing and graphical approaches used in residual diagnosis may include:

Test for normality: This test determines if the residuals have a normal distribution. A model's assumptions may be in doubt if there are deviations from normalcy, such as missing data or incorrect specification.

There is no one founder or specific person who is credited for creating residual diagnostics. Instead, it has over time become a crucial component of statistical modeling and regression analysis. The development and improvement of residual diagnostic approaches has been supported by a large community of statisticians and econometricians. Their combined efforts have produced a variety of diagnostic tests and graphical tools that are used to assess the veracity and assumptions of regression models.

4.6.4.1 Jarque-Berra test:

The Jarque-Bera test is a statistical procedure used to evaluate the normality assumption of a distribution based on sample data. It is named after Carlos Jarque and Anil K. Bera. It is especially useful when residual diagnostics are used in regression analysis to check whether a model's residuals have a normal distribution. In order to determine deviation from normalcy, the test assesses the skewness and kurtosis of the sample data. Kurtosis and skewness assess the distribution's weight and shape in relation to a normal distribution, respectively.

Determine the sample data's skewness (S) and kurtosis (K) values. The deviation from symmetry and normalcy is measured statistically.

Determine the sample data's skewness (S) and kurtosis (K) values. The deviation from symmetry and normalcy is measured statistically.

The formula used to calculate the Jarque-Bera test statistic (JB), where n is the sample size, is $JB = (n/6) * (S^2 + (1/4)*(K-3)^2)$.

The JB statistic follows a chi-squared distribution with degrees of freedom equal to two under the null hypothesis of normality. As a result, the JB statistic is contrasted with threshold values from the chi-squared distribution to determine normalcy.

4.6.4.2 Serial Correlation LM

To ascertain if autocorrelation is present in the residuals of a regression model, a statistical test known as the Serial Correlation LM (Lagrange Multiplier) test is

utilized. The association between errors at multiple time intervals is known as "autocorrelation." The test consists of explicitly expressing the autocorrelation alternative hypothesis, computing the test statistic based on lagged residuals, and comparing it to critical values from the chi-squared distribution. There can be residual autocorrelation if the test statistic is higher than the cutoff point. Autocorrelation must be recognized and dealt with for regression models to be accurate and trustworthy, particularly in time series analysis. The Serial Correlation LM test aids in spotting any autocorrelation-related misspecification in regression models. Serial correlation can impact parameter estimates' effectiveness and dependability, cause erroneous inference, and impair hypothesis testing's correctness. Researchers can enhance the validity and dependability of their regression models, particularly in time series analysis, by identifying and correcting serial correlation.

4.6.5 Granger Causality Test

A statistical test called the Granger causality test analyzes whether one variable may be used to predict another variable based on past values. Creating hypotheses, estimating a Vector Autoregressive (VAR) model, determining a test statistic (such as the F-statistic or chi-squared statistic), and comparing it to critical values are all part of the process. Rejecting the null hypothesis implies that the variables are causally related. The test aids in examining causal relationships in time series data, but it cannot prove causation with certainty and may not take all relevant aspects into consideration. The Granger causality test aids in identifying probable causal relationships by determining if a variable has predictive value for another variable. It is frequently used to investigate causal relationships and comprehend the dynamics between variables in a time series environment in the domains of econometrics, finance, and other areas. Granger causality, however, should be understood to not demonstrate causation in a strict sense as it simply detects statistical relationships and is unable to account for all potential causes or missing variables.

CHAPTER V

DATA PRESENTATION AND INTERPRETATIONS

5.1 Introduction

The results of the study are outlined in each of the four sections that make up this chapter. The link between financial performance and the evolution of accounting and reporting in commercial companies is discussed in the next section, and this influence is visually assessed. This article's first section goes into great detail about descriptive statistics and data analysis methods. The stationary test of a data set is discussed in the second portion, and co-integration is examined and discussed in the third section. Co-integration is examined and discussed in the fourth session. We will cover a wide range of subjects in the very last and closing portion, including regression analysis, diagnostic tests, and checks to see if the data or results are stable. Despite this, the presentation was conducted in a way that was in line with the objectives of the study, and the testing was successfully carried out with the aid of the EViews computer program.

The discussion portion of a research paper is where the author interprets and assesses the study's findings in light of the body of knowledge and hypotheses that have already been established. It is a critical section of the article that enables the author to show that they have a solid grasp of the research issue, the techniques employed, and the conclusions drawn. The research question and an overview of the key findings are often restated at the start of the discussion section. The results are then interpreted and explained by the author, who also discusses how they add to the body of knowledge already known in the subject. This is sometimes accomplished by comparing and contrasting the results with those of earlier research, noting overlaps, disparities, and possible causes. The discussion section may explore the study's shortcomings, potential sources of bias or mistake, and ideas for future research in addition to addressing the results. The author may additionally go over the results' useful ramifications, emphasizing how they might be used in actual situations.

5.2 Descriptive Statistics

Interpretation

The six variables LFDI, LTRADE, LCO2, LHCI, LFDINV, and LGG are summarized in this table 1.

With a skewness rating of -0.287, LFDI looks to have a somewhat negatively skewed distribution. LFDI has a mean value of -0.686 and a median value of -0.598. The variable has a standard deviation of 0.478 and a range of -1.661 at the minimum to -0.051 at the highest. With a p-value of 0.044 and a Jarque-Bera test statistic of 6.234 for LFDI, it is possible that the distribution of LFDI is not normal.

With a skewness rating of 1.476, LTRADE's distribution is favorably skewed. LTRADE has a mean value of 3.762 and a median value of 3.729. The variable has a standard deviation of 0.421 and a range from 3.031 as the minimum to 5.126 as the highest. LTRADE's distribution is not normal, according to the Jarque-Bera test statistic of 76.96 and the p-value of 0.

With a skewness rating of 1.406, LCO2 appears to have a distribution that is strongly positively skewed. LCO2 has a mean value of -1.128 and a median value of -1.294. The variable has a standard deviation of 0.463 and a range from a minimum value of -1.708 to a high value of 0.115. Indicating that the distribution of LCO2 is not normal, the Jarque-Bera test statistic for this gas is 32.82, and the p-value is 0.

LHCI: has a distribution that is just somewhat negatively skewed, with a skewness score of -0.423. LHCI has a mean value of 1.005 and a median value of 1.005. The variable has a standard deviation of 0.190 and a range from a minimum value of 0.565 to a maximum value of 1.279. Given that LHCI has a Jarque-Bera test statistic of 3.139 and a p-value of 0.208, it is possible that its distribution is normally distributed.

With a skewness rating of -1.380, LFDINV has a distribution that is quite negatively skewed. LFDINV has a mean value of 0.804 and a median value of 1.039. With a standard deviation of 1.152, the variable's values vary from a minimum of -4.742 to a maximum of 4.097. The distribution of LFDINV is not normal, as shown by the 167.43 Jarque-Bera test statistic and p-value for LFDINV.

With a skewness score of -1.163, the distribution for LGG is negatively skewed. The median and mean values of LGG are both 4.067. The variable has a standard deviation of 0.124 and a range from a minimum value of 3.748 to a high value of 4.253. With a

p-value of 0.000002 and a Jarque-Bera test statistic of 26.56 for LGG, it can be concluded that the distribution of this gene is not normal. The table also shows each variable's total and sum of squares deviations. Calculating additional statistical measures like the variance and standard deviation may be done with the help of these statistics. The table offers a thorough explanation of the distribution and variance of the six variables in the sample and a test.

5.3 Unit Root Test

A statistical test called a unit root test may be used to assess if a time series is stationary or not. A non-stationary time series has a trend or some other type of variability that varies with time, whereas a stationary time series has a constant mean and variance throughout time. The Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests are the two most often utilized unit root tests. If a time series has a unit root, it is non-stationary and has a deterministic trend, and these tests can tell whether or not that is the case. The series has a unit root, which is the test's null hypothesis; the series is stationary, which is the test's alternative hypothesis.

The manner that the ADF and PP tests handle serial correlation in the time series errors is different. The PP test use a more broad regression model that takes into account lagged differences in the time series, whereas the ADF test employs an autoregressive model to capture the serial correlation. A t-statistic and a probability value (Prob) are commonly used to present the unit root test findings. The t-statistic calculates the standard error in units of the sample estimate's departure from the null hypothesis. If the null hypothesis is correct, the probability value represents the likelihood of witnessing a t-statistic that is as severe as the one computed.

The alternative hypothesis of stationarity is accepted in place of the null hypothesis of non-stationarity if the probability value is smaller than the significance threshold, which is typically 0.05. This indicates that the time series is stationary and does not have a unit root. The null hypothesis cannot be ruled out and the time series is deemed non-stationary if the probability value exceeds the significance level.

Table 2: Unit Root Test

ADF				PP			
Variables	T-Statistics	Prob	Integration	Variables	T-Statistics	Prob	Integration
LFDI	52.9568	0.0001	I(0)	LFDI	120.757	0.0000	I(0)
LTRADE	39.5336	0.0057	I(1)	LTRADE	49.8409	0.0002	I(1)
LCO2	57.9895	0.0000	I(2)	LCO2	159.341	0.0000	I(2)
LHCI	36.9768	0.0118	I(2)	LHCI	129.219	0.0000	I(1)
LFDINV	73.1131	0.0000	I(1)	LFDINV	140.732	0.0000	I(1)
LGG	39.2880	0.0061	I(2)	LGG	139.613	0.0000	I(2)

Interpretation

The results of the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root tests are shown in table 2. To establish if a time series is stationary or not, apply the ADF and PP tests. A non-stationary time series has a trend or some other type of variability that varies with time, whereas a stationary time series has a constant mean and variance throughout time. The table displays the t-statistic, probability value (Prob), and level of integration (I) for each variable. The level of integration shows how many differences must be made in order for the variable to become stationary.

The results demonstrate that the null hypothesis of non-stationarity is rejected for the ADF test since all variables have t-statistics larger than the crucial values at a 5% significance level. All variables are therefore stationary. All variables have probability values of 0.0000 for the PP test, which shows that the non-stationarity null hypothesis is likewise rejected. The degree of integration for each variable is also displayed. The amount of integration for LFDI, LFDINV, and LGG is I(1), showing that stationarity requires just one difference. The amount of integration for LTRADE and LHCI is I(2), showing that stationarity requires two differences. The level of integration for LCO2 is I(2), which denotes that stationarity requires two differences. Overall, the findings imply that all variables have stationary distributions, which is crucial for time-series research because non-stationary variables might provide biased findings.

5.4 Johansen Co-Integration Test

A statistical technique for identifying the long-run equilibrium connection between several non-stationary time series variables is the Johansen co-integration test. By estimating the number of co-integrating vectors, this method can provide light on the dynamics of the long-term relationships between the variables. It is useful in many

sectors, including finance, economics, and social sciences, and aids in understanding the nature of linkages.

Table 3: Johansen Co-Integration Test

	<u>Statistic</u>	<u>Prob.</u>	<u>Statistic</u>	<u>Prob.</u>
Panel v-Statistic	-1.859247	0.9685	-3.473997	0.9997
Panel rho-Statistic	3.663548	0.9999	4.139086	1.0000
Panel PP-Statistic	-5.338956	0.0000	-4.619474	0.0000
Panel ADF-Statistic	-1.782864	0.0373	-0.252196	0.4004
	<u>Statistic</u>	<u>Prob.</u>		
Group rho-Statistic	4.726064	1.0000		
Group PP-Statistic	-9.79652	0.0000		
Group ADF-Statistic	-1.634937	0.0510		

Interpretation

The Johansen Co-Integration test, which examines whether the variables have a long-term connection, is shown in the table. All three panel statistics—the panel v-statistic, panel rho-statistic, and panel PP-statistic—indicate that the variables are not co-integrated. Since the panel ADF statistic is statistically significant at the 5% level, co-integration may be present. There may be co-integration among the variables within each group, according to the group rho-statistic, group PP-statistic, and group ADF-statistic, all of which are statistically significant at a 1% level in table 3.

5.5 Panel Generalized Method of Moments

Panel Generalized Method of Moments (PGMM) is a statistical technique for calculating the parameters of dynamic panel data models. The strategy is founded on the idea of moment conditions, which work to reduce the discrepancy between observed and theoretical moments in a model. The PGMM approach is effective for analyzing correlations between economic variables over time, across different groups, or throughout different regions. It is a technique that is often used in the social sciences, including economics and finance.

Table 4

Panel Generalized Method of Moments				
Variable	Coefficient	Std. Error	T-Statistics	Prob*
LTRADE	-0.264324	0.083346	-3.171417	0.0021
LCO2	0.114104	0.061345	1.860051	0.0662
LHCI	2.461523	0.169969	14.48215	0.0000
LFDINV	0.002429	0.027767	0.087467	0.9305
LGG	-0.501707	0.087086	-5.761027	0.0000
Adj R-squared	0.679159		Prob(F-statistics)	0.000001
J-Statistics	24.10104		Durbin-Watson	0.031812

Interpretation

The findings of a panel generalized method of moments (GMM) regression analysis are shown in Table 4. The table lists each variable's coefficients, standard errors, t-statistics, and p-values.

The table doesn't specifically state the dependent variable. The independent variables are the logarithms of trade openness (LTRADE), carbon dioxide emissions (LCO2), the human capital index (LHCI), foreign direct investment (LFDINV), and green growth (LGG).

At the 1% level, the coefficients for LTRADE, LHCI, and LGG are statistically significant. At the 5% level, the coefficient for LCO2 is not statistically significant; however, at the 10% level, it is marginally significant. Indicating that the model adequately accounts for 68% of the variation in the dependent variable, the adjusted R-squared value is 0.679. The total model is statistically significant, as indicated by the probability value for the F-statistics being less than 0.0001.

According to the J-statistics value of 24.101, there could be some over-identification limitations. The error terms may have serial correlation because of the extremely low Durbin-Watson value of 0.032. In general, the findings indicate that at the 0.05 level of significance, trade openness, the human capital index, and green growth all have a statistically significant impact on the dependent variable, whereas carbon dioxide emissions are significant at the 1% and 10% levels of relevance. The veracity of the data may be constrained, though, by serial correlation and over-identification constraints.

5.6 Residual Diagnostics Test

To evaluate how well a statistical model fits a certain set of data, a statistical method known as residual diagnostics is utilized. It is necessary to analyze the residuals or errors between the observed data and the predicted values of the model. The residual diagnostics tests are used to assess the model's basic assumptions, including the errors' normality, homoscedasticity (equal variance), independence, and lack of outliers or significant data. The residual diagnostics test typically consists of plotting the residuals against the predicted values, searching the residuals for patterns or trends, running formal hypothesis tests like the Shapiro-Wilk test or the Kolmogorov-Smirnov test for normality, and reviewing residual plots like QQ-plots, histograms, and scatterplots.

Table 5

<i>Normality Test</i>		<i>Serial Correlation LM Test</i>			
Jarque-Berra	Prob.	F-statistic	rho	SE(rho)	Prob
1.480049	0.477102	0.967606	0.010308	0.010653	0.9944

The table 5 displays the outcomes of two statistical analyses carried out on the dataset,

5.6.1 Jarque-Berra test:

Interpretation

The results of this normality test show if the data are distributed normally. The linked Jarque-Berra statistic is 1.480049, and the accompanying probability (or p-value) is 0.477102. The null hypothesis of the test is the data that is normally distributed. We conclude that there is no evidence to support the assumption that the data are not normally distributed because the p-value is larger than 0.05 (the conventional significance level) and we fail to reject the null hypothesis.

5.6.2 Serial Correlation LM: It is determined whether there is any correlation between the residuals at distinct temporal or geographical locations using this test, also known as an autocorrelation test. The F-statistic for this test is 0.967606, which is compared to an important number from the F-distribution to determine whether to reject or fail to reject the null hypothesis. Since the table omits the important number,

we are unable to determine whether to reject or fail to reject the null hypothesis in this situation. The table also shows the estimated value of the correlation coefficient, together with its standard error and accompanying probability (or p-value). The null hypothesis of the test is that autocorrelation does not exist in the residuals. Since the p-value of 0.9944 is more than 0.05 and we are unable to rule out the null hypothesis, we conclude that the residuals do not contain any evidence of autocorrelation.

5.7 Granger Causality Test

To ascertain if one time series may forecast or contribute to changes in another time series, the Granger Causality test is employed. Pairwise Granger causality tests were run between the various variables in the presented table. A null hypothesis for each test indicates that one variable did not cause the other variable.

Interpretation

The table displays the F-statistic, the number of observations (Obs), and the probability (Prob) value for each test. The null hypothesis is rejected and there is evidence that there is Granger causality between the variables if the probability value is smaller than the selected level of significance (usually 0.05). For instance, the Granger causality test findings between the variables LTRADE and LFDI are shown in the top row of the table. LFDI is not Granger caused by LTRADE, according to the null hypothesis. The probability value is 0.3285, and the F-statistic is 1.12075. We conclude that there is no evidence to support the null hypothesis that LTRADE Granger causes LFDI since the probability value is larger than 0.05 and we do not reject the null hypothesis. The null hypothesis for the second row is that LFDI does not Granger induce LTRADE. The probability value is 0.2977, and the F-statistic is 1.22080. We conclude that there is no evidence to support the null hypothesis that LFDI Granger causes LTRADE since the probability value is larger than 0.05 and we do not reject the null hypothesis. For the other rows in the table, the same interpretation is used.

To determine if one time series may be used to predict another, the Granger causality statistical test is utilized. The Granger causality test is based on the idea that past values of X should still be helpful in predicting future values of Y even after taking into consideration Y's prior values.

The Granger causality test requires estimation of two regression models:

A univariate autoregression of Y on its own lagged values

$$(Y_t = a_1 Y_{t-1} + a_2 Y_{t-2} + \dots + a_p Y_{t-p} + u_t)$$

A bivariate autoregression of Y on its own lagged values and the lagged values of X

$$(Y_t = b_1 Y_{t-1} + b_2 Y_{t-2} + \dots + b_p Y_{t-p} + c_1 X_{t-1} + c_2 X_{t-2} + \dots + c_q X_{t-q} + v_t)$$

The test's null hypothesis is that X does not Granger-cause Y, as evidenced by the fact that all of the coefficients (c_1, c_2, \dots, c_q) are equal to zero. The test statistic is calculated as the difference between the residual sum of squares from the univariate and bivariate models. If the test statistic exceeds a critical number from the F-distribution, the null hypothesis is disproved, and it is possible to conclude that X Granger causes Y. If the test statistic is less than the critical value, the null hypothesis is not disproved and it cannot be concluded that X Granger causes Y.

The Granger causality test is often used in time series analysis to investigate causal relationships between variables. However, Granger causality does not suggest causation in the It is important to remember that this does not make sense of a true cause-and-effect relationship. It only implies that one variable can be useful in predicting another variable, which might be brought about by a variety of different factors, such as a common underlying cause or an incorrect connection.

Pairwise Granger Causality Tests

Date: 04/24/23 Time: 14:26

Sample: 2002 2021

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
LTRADE does not Granger Cause LFDI	167	1.12075	0.3285
LFDI does not Granger Cause LTRADE		1.22080	0.2977
LCO2 does not Granger Cause LFDI	157	0.78271	0.4590
LFDI does not Granger Cause LCO2		0.25906	0.7721
LHCI does not Granger Cause LFDI	156	1.93916	0.1474
LFDI does not Granger Cause LHCI		110.581	3.E-30
LFDINV does not Granger Cause LFDI	144	0.04578	0.9553

LFDI does not Granger Cause LFDINV		1.22034	0.2983
LGG does not Granger Cause LFDI	87	0.71277	0.4933
LFDI does not Granger Cause LGG		1.93437	0.1511
LCO2 does not Granger Cause LTRADE	160	0.56942	0.5670
LTRADE does not Granger Cause LCO2		2.04159	0.1333
LHCI does not Granger Cause LTRADE	159	0.74880	0.4746
LTRADE does not Granger Cause LHCI		3.44539	0.0344
LFDINV does not Granger Cause RADE	157	0.86578	0.4228
LTRADE does not Granger Cause LFDINV		2.01759	0.1365
LGG does not Granger Cause LTRADE	100	7.45802	0.0010
LTRADE does not Granger Cause LGG		0.11603	0.8906
LHCI does not Granger Cause LCO2	159	0.71789	0.4894
LCO2 does not Granger Cause LHCI		2.58891	0.0784
LFDINV does not Granger Cause LCO2	138	0.26835	0.7651
LCO2 does not Granger Cause LFDINV		0.21333	0.8082
LGG does not Granger Cause LCO2	80	1.10505	0.3365
LCO2 does not Granger Cause LGG		0.82066	0.4441
LFDINV does not Granger Cause LHCI	137	1.05679	0.3505
LHCI does not Granger Cause LFDINV		6.46080	0.0021
LGG does not Granger Cause LHCI	80	3.20017	0.0464
LHCI does not Granger Cause LGG		2.26000	0.1114
LGG does not Granger Cause LFDINV	89	2.46910	0.0908
LFDINV does not Granger Cause LGG		1.38282	0.2565

5.8 Discussion and Link with Study Hypothesis

The findings of the ADF test and other model were analyzed in this study's fifth chapter. The residual diagnostic test was also provided, and the data's stability was put to the test. These sections serve to summarize the findings for each nation, relate them to the hypothesis that was investigated in the first chapter, and assess whether the aims and questions of the study were adequately addressed. The results for all the variables for the nations chosen, including Australia, Brazil, China, Colombia, Hungary, Indonesia, Japan, Nigeria, Peru, and Spain, are discussed below in detail.

CHAPTER VI

Conclusions And Recommendations

6.1 Introduction

This five chapter of the study will include a summary of the thesis, policy suggestions.

In order to encourage sustainable economic development, commercial organizations must develop their accounting and reporting systems. The significance of sustainable development and the part that companies may play in attaining it have recently come to be more widely acknowledged. The development of accounting and reporting procedures that consider environmental, social, and governance aspects has so received more attention. For commercial businesses, including sustainability factors into accounting and reporting procedures provides a number of advantages. It increases their reputation and credibility with stakeholders, gives them the capacity to handle sustainability-related risks and opportunities more effectively, and makes it easier for them to access finance and investment possibilities. Additionally, commercial organizations may match their corporate aims with the more general objectives of sustainable economic growth thanks to sustainable accounting and reporting procedures. To encourage sustainable accounting and reporting methods in commercial businesses, numerous projects have been launched. These include the creation of sustainability reporting standards like those set out by the Sustainability Accounting Standards Board (SASB) and the Global Reporting Initiative (GRI). Additionally, there has been a rise in the need for openness and responsibility in respect to sustainability problems from investors, clients, and other stakeholders. Presently, 169 indicators and 17 Sustainable Development Goals (SDGs) serve as global benchmarks for sustainable development. They support the corporate sector in reorganizing their operational procedures in response to contemporary concerns.

Corporate sustainable development strategy must incorporate the SDGs, reorganizing already-existing data and offering analytical support for the decision-making process based on sustainable development's social, economic, and environmental facets. Professional accountants have a direct impact on the business level promotion of sustainable development efforts in this context. Authors synthesize several ways to organizing the role of professional accountants using resources from professional organizations, offering a comprehensive view of the accounting profession in the modern economy. The authors look into how professional accountants help achieve the SDGs, with objectives 12.6, 08.03, 17.16, and 17.18 being the most pertinent. We identify common roles and areas of professional accountants' duty in decision-making support using the corporate sustainable development gradation of strategic, operational, and reporting. Professional accountants' functional responsibilities and job titles are inextricably linked to different levels of corporate sustainable growth. Accountants exert their power as value creators at the strategic level, value providers for sustainable growth at the operational level, and value keepers and reporters at the reporting level. As a result, the role of professional accountants in sustainable development must be updated to reflect the current state of the economy. The development of accounting and reporting in commercial organizations in the context of sustainable economic development is crucial for achieving long-term economic, environmental, and social goals. At the same time, mechanisms of professional competence for accountants require further investigation. Different groups of accountants are responsible for the high-quality and reliable sustainable reporting, which is the basis of information and analytical support for sustainable development. Businesses are better equipped to handle the risks and possibilities related to sustainability challenges, gain more credibility and reputation, and have easier access to funding and investment opportunities. Therefore, adopting sustainable accounting and reporting methods as a core component of their entire company strategy is crucial for firms.

6.2 Conclusion

This research examined the environmental deterioration in Australia, Brazil, China, Colombia, Hungary, Indonesia, Japan, Nigeria, Peru, Spain, and various stages of economic expansion. It also provided an overview of the Kuznets curve. The study used the estimation approach ARDL, where the control variables were green growth

and human capital. The dependent variable, LFDI, was used as a proxy for accounting development, while the independent variables were income and income-squared. This thesis made use of secondary data that was collected annually between the years of 2002 and 2021. The World Bank Database indicators used as the source for data on CO2 emissions, trading, and foreign direct investment. While information on financial performance was obtained from the International Monetary Fund. Additionally, data on human capital was obtained from the Federal Reserve. While the Global Green Growth Institute provided information on green growth.

6.3 Policy and recommendations

For policymakers, regulators, standard-setters, practitioners, and other stakeholders, this entails offering policy implications and suggestions in order to encourage the development of accounting and reporting standards in business organizations that support sustainable economic growth. In addition to suggesting techniques for improving the integration of sustainability issues into accounting and reporting procedures, the research may uncover best practices, gaps in current rules and standards, and opportunities for development.

1. Adopt an integrated reporting system. This will enable commercial enterprises to report on both their financial and non-financial performance. Organizations are encouraged to report on ESG aspects and connect them to their financial performance through integrated reporting.

Environmental Benefits: One of the key justifications for the adoption of renewable energy sources is the fact that they have a less negative impact on the environment than fossil fuels. The impact of renewable energy sources on air pollution and global warming is reduced since they release little or no greenhouse gases.

Dependence on fossil resources from politically unstable regions might lead to fluctuations in energy prices and disruptions in the supply. Renewable energy sources can boost energy security by reducing reliance on imported fuels and diversifying the energy mix.

Economic viability: Many renewable energy sources are becoming more and more cost-competitive with conventional ones due to technology breakthroughs and

economies of scale. The cost of creating renewable energy has decreased as a consequence, making it a cheaper alternative.

Employment: From manufacture and installation to maintenance and research, the renewable energy sector has the potential to provide a sizable number of employment. This may support regional economic growth.

Decentralization: Numerous renewable energy sources, like solar cells and mini-turbines, may be installed without a central location. This can assist in bringing electricity to rural or underdeveloped places where setting up traditional power infrastructure may be difficult.

technology Innovation: The desire for the widespread use of renewable energy has sparked important technology developments that have produced more effective and dependable systems for electricity generation.

Government initiatives, such as tax breaks, subsidies, and regulations, have been essential in boosting the usage of renewable energy. Carbon pricing, mandates for renewable energy portfolios, and feed-in tariffs are a few of the policy instruments used to boost renewable energy.

Integration Challenges Integrating renewable energy sources into existing energy networks can be challenging due to their intermittent nature (solar and wind) and geographic restrictions (hydro and geothermal). Energy storage technology and smart grid systems are being developed to address these problems.

Investment in infrastructure Significant investments are required in transmission infrastructure, grid upgrades, and energy storage solutions in order to transition to an infrastructure based on renewable energy.

Global Efforts: Several countries and international organizations have set ambitious goals for renewable energy as part of their efforts to slow down climate change. For instance, the Paris Agreement emphasizes the importance of converting to a low-carbon energy system in order to prevent the increase in global temperatures.

Despite the advances, there are still challenges that might limit the widespread adoption of renewable energy sources, such as high initial costs, a general lack of public awareness, and regulatory constraints.

Generally speaking, utilizing renewable energy is an essential first step toward a more stable and sustainable energy future. A combination of technical innovation, enabling policies, and global collaboration are required to successfully tackle warming temperatures and offer a secure energy future.

2. Create a sustainability plan. Organizations should create a sustainability strategy outlining their dedication to sustainable development as well as how they will handle ESG opportunities and risks. Stakeholders should be informed of the sustainability strategy, which should be in line with the organization's overall business plan.

Resource Efficiency: Sustainable development places a strong emphasis on conserving resources and cutting down on waste. This strategy can help firms cut costs and have a less negative impact on the environment. For instance, using cleaner production techniques might result in decreased energy usage and operational expenses.

Technology and innovation: Sustainable development promotes the creation and uptake of cutting-edge technology that may open up new business possibilities. Innovations that can promote economic growth include green infrastructure, sustainable agriculture methods, and clean energy technology.

Green Jobs: Making the transition to a more sustainable economy frequently calls for new knowledge and skills. This might result in the creation of green jobs in industries including waste management, renewable energy, energy efficiency, and ecological advisory services.

New Markets: Thanks to sustainable development, environmentally friendly products and services could discover new customers. Consumers and companies are increasingly appreciating goods that are made ethically and with little harm to the environment.

Environmental protection and tourism: Travel and tourism is a significant sector in many places. Sustainable development may be used to encourage ethical tourism that preserves natural regions and benefits the local community.

Sustainable development increases a community's resilience to economic, environmental, and social shocks. Infrastructure improvements, industrial diversification, and environmental initiatives may increase resilience.

Planning for the future: Sustainable development promotes long-term thinking and planning. Decisions are made with the effects on future generations in mind, which can result in more steady and balanced economic growth.

Corporate Social Responsibility (CSR): Many companies now understand how critical it is to include sustainable practices in their CSR operations. This can strengthen stakeholder relations, boost a company's brand, and draw in socially aware investors.

Policy Alignment: Governments that place a high priority on sustainable development frequently implement laws that balance economic development with social advancement and environmental preservation. These regulations can build an environment that encourages the growth of enterprises and industries while reducing unfavorable externalities.

Public-Private Partnerships: To attain the goals of sustainable development, governments, businesses, and civil society must collaborate. Public-private partnerships may address societal concerns while fostering economic progress by utilizing the strengths of each sector.

Ecosystem Services: Sustainable development places a high emphasis on ecosystem services such as clean air, water, and biodiversity. The continuation of these services is essential to the foundation of a robust economy.

In general, a complete approach that considers how economic, social, and environmental factors are interwoven is stressed while promoting economic growth through sustainable development. By implementing sustainable practices and regulations, societies may raise the standard of living for everyone while achieving long-term economic growth.

3. **Perform a Materiality Assessment:** To determine the ESG concerns that are most important to their company and stakeholders, commercial enterprises should perform a Materiality Assessment. To make sure that the organization's sustainability plan is responsive to shifting stakeholder expectations, the materiality assessment should be carried out on a regular basis.

Setting goals and Need Governments and regulatory organizations identify areas where existing regulations are inadequate or where new regulations are necessary. The more restrictive requirements contain specific goals that specify what must be achieved.

Regulating organizations offer detailed specifications, regulations, or guidelines that outline the requirements and standards. Feedback from stakeholders may be requested to ensure that the regulations are practical and feasible.

Advisory and Review: Consultation with relevant parties, such as corporate representatives, environmental organizations, and the general public, can yield feedback and potential modifications. Regulatory impact evaluations may be performed to analyze the potential effects of the new regulations on a variety of variables, including the economy.

Regulation completion and adoption: For the rules to be enforced, they may need to be approved by the relevant legislative or administrative agencies.

The regulatory institutions effectively carry out regulations. This may include fines for noncompliance, audits, monitoring, and inspections.

Benefits of Stricter Regulations:

Stricter regulations that protect consumers from harmful goods, services, and products can reduce risks to the public's safety and health.

By reducing pollution, preserving natural resources, and preventing climate change, environmental protection legislation can lead to cleaner air, water, and ecosystems.

Regulations can set standards for the caliber of products and services, ensuring that customers receive reliable and consistent commodities.

Equal Opportunity: Tighter regulations prevent businesses from abdicating commitments in order to gain unfair benefits. This promotes fair competition.

Regulations can inspire the development of innovative solutions that satisfy new specifications. For instance, environmental regulations may promote the development of greener technologies.

Market Transparency: Laws may require businesses to provide accurate and transparent information to customers, therefore fostering consumer trust.

Long-Term Planning: Businesses are more likely to invest in long-term sustainability and risk management when regulations require it.

Reputation on a global scale: Countries or regions with rigorous regulations may gain a positive reputation for giving security, excellence, and environmental stewardship first priority.

Stakeholder Engagement: Stricter regulations usually include consultations with a variety of stakeholders, increasing the public's involvement in decision-making.

Preventing Negative Externalities: Regulations can internalize the costs related to negative externalities like pollution by requiring businesses to take these costs into account in their operations.

It's crucial to remember, too, that enacting harsher laws necessitates considerable thought and balance. Overly onerous rules may hinder innovation, raise the cost of compliance for companies, and even have unforeseen effects. To guarantee that laws efficiently accomplish their intended purposes without impeding economic development and innovation, it is essential to strike the correct balance between regulation and flexibility.

4. Create ESG Performance Metrics: To evaluate and communicate their ESG performance, organizations should create ESG Performance Metrics. The metrics should be used to monitor advancement over time and be in line with the organization's sustainability plan.

Identifying the Issue: The campaign organizers pinpoint the particular subject, problem, or goal that need greater public awareness and participation.

2. Setting Objectives: There are specific objectives like raising awareness, changing behaviors, influencing views, or motivating certain actions.

3. Message Formatting: The target demographic is taken into consideration while crafting concise, accessible, and clear campaign messaging. In communications, the importance of the issue and the benefits of taking action are typically highlighted.

Target Audience Identification: The campaign identifies the specific groups or individuals that the messages should be made to. Understanding the characteristics, inclinations, and interests of the target audience is essential.

Choosing Communication Channels: Campaign managers select the most effective communication channels to reach the target audience. A few examples include events, social media, radio, television, print media, online platforms, and community outreach.

Producing Original Content Eye-catching and fascinating content is produced, including movies, images, posters, and interactive materials, to effectively deliver the campaign themes.

Campaign launch and promotion: The campaign is launched and marketed through a number of channels in order to reach the target audience.

Engagement and Interaction: Interactive elements like challenges, discussions, and quizzes encourage viewers to take part in the campaign and provide their suggestions.

Monitoring and Evaluation: The effectiveness of the campaign is evaluated using metrics such as reach, engagement, behavior change, and public opinion. This review enhances the campaign strategy for the future.

Campaigns to raise public awareness have a number of benefits.

Education: Campaigns inform and educate the public about important issues to help them form logical conclusions.

Effective ads may convince individuals to adopt good habits like quitting smoking, using seatbelts in vehicles, or creating persistent routines.

Campaigns can be used to rally public support for specific causes, social issues, or legislative reforms.

By providing individuals with the knowledge and resources they need to take action, awareness-raising empowers them.

Social Norms: Campaigns can alter social norms by highlighting positive behaviors and making them more acceptable in society.

Initiatives to raise public awareness usually include communities and encourage a sense of shared accountability.

Political Action: Campaigns can motivate people to speak up for change by contacting policymakers or participating in public discourse.

Visibility: Through campaigns, ignored or underrepresented issues may be made public. Promoting safe behaviors and safety measures helps prevent accidents, health issues, and other issues.

Impact through Time: Campaigns may provide long-lasting impacts by gradually changing attitudes, behaviors, and perceptions.

Public awareness campaigns are effective tools for promoting social advancement and effecting good change. They have the capacity to motivate individuals to take action and contribute to the improvement of their own lives, those of their communities, and even those of whole civilizations.

4. **guarantee openness:** Companies should offer crucial ESG data in a clear and understandable way to guarantee transparency in their reporting. Stakeholders should have easy access to information that is provided in a uniform, comparable manner.

Growing our knowledge: We learn more about the planet and the cosmos as a whole thanks to research. The new information, concepts, and connections it discloses contribute to the enrichment of our common knowledge.

2. Innovation and creativity

New products, services, and solutions created as a consequence of technological innovation and development propelled by research enhance our quality of life.

3. Problem-Solving

Research takes on challenging situations by identifying the root causes, investigating potential solutions, and testing ideas. Innovations in the domains of medicine, environmental protection, and energy production might arise from it.

4. Economic Progress

Research may encourage economic growth by creating new markets, industries, and job possibilities based on revolutionary discoveries and technology.

5. Improved Methods:

Industry best practices are influenced by research, which leads to more effective and efficient methods in a variety of fields, including management, healthcare, agriculture, and education.

6. Relying on Evidence to Make Decisions: Research provides the necessary facts and information for making well-informed judgments in a range of sectors, including public policy, corporate strategy, and healthcare.

7. Personal and Professional Growth: Researching encourages critical thinking, intellectual curiosity, and problem-solving skills. It promotes lifelong learning and growth as an individual.

8. Addressing Social Problems: Research is crucial to addressing pressing societal issues, such as climate change, public health problems, inequality, and violations of human rights.

9. Scientific Progress: Ongoing research improves our understanding of natural phenomena and the underlying rules of the universe by developing scientific theories and models.

10. Education and Training: Students and researchers have the opportunity to learn by doing at research institutes, building skills that will help them get positions in the corporate world, academia, and other sectors. Maintaining variety of culture Humanities and social science study preserves cultural legacy, traditions, and historical information for future generations.

12. Exploration and Curiosity: Researchers may make new discoveries, push the boundaries of our understanding, and satisfy people's insatiable curiosity about the world around them.

13. Collaboration and networking: In order to share ideas and create multidisciplinary solutions, research supports collaboration across experts, organizations, and disciplines.

Making Policies: Research is required to develop effective laws and policies that address the needs and issues of society.

In essence, research is the driving force behind progress, expanding society by dispelling myths, igniting creativity, and overcoming difficult problems. Investments in education, research institutes, funding, and resources are required to ensure that mankind may continuously develop its understanding and improve its condition of wellbeing.

4. Guarantee Accountability: Commercial firms should allocate responsibility for ESG concerns to certain people or departments inside the organization to guarantee accountability for their ESG performance. Additionally, the firm should have a procedure in place for tracking and reporting on results in relation to ESG objectives.

Establish clear standards and benchmarks for behavior, performance, and outcomes. Make sure that individuals or groups understand what is expected of them.

Transparency: Promote openness in decisions and behavior. This include information disclosure, data sharing, and making activities and results public to relevant stakeholders.

To demonstrate your responsibility, keep records and evidence of your deeds, rulings, and commercial activities.

reporting guidelines Establish procedures that allow anybody to report misconduct or violations of laws and regulations. Encourage those who report wrongdoing to become whistleblowers.

Establish supervision systems to monitor and assess the deeds of individuals or organizations, such as regulatory bodies, audits, or review procedures.

Make sure that there are repercussions for acts or behaviors that conflict with established standards or laws. This could involve disciplinary measures, fines, or legal consequences.

Independent Review: To guarantee objectivity and fairness in assessing accountability, it may occasionally be essential to conduct an independent review or probe.

Responding to complaints and concerns from stakeholders by acting appropriately and speedily to resolve problems.

Promoting an ethical and accountable culture inside a company or community are cultural and ethical considerations. Encourage people to accept full accountability for their actions.

Engage the public or pertinent stakeholders in conversations and decision-making processes to make sure that their opinions are heard and taken into account.

Education and teaching: Spread a culture of responsibility throughout businesses and individuals by educating and teaching them about their obligations and moral obligations.

Continuous Improvement: Evaluate and enhance accountability systems and procedures on a regular basis to take into account changing conditions and new problems.

The maintenance of moral behavior, the prevention of corruption, and the insistence that people and organizations take responsibility for their activities depend on assuring accountability. It promotes a more fair and open society or environment where people can trust that those in positions of power or influence are acting in the benefit of the general public or stakeholders.

5. **Communicate with Stakeholders:** Businesses need to communicate with stakeholders, such as customers, workers, investors, and communities, to learn about their expectations and worries surrounding ESG problems. The company should adapt its sustainability strategy and reporting based on input from stakeholders. Synthesize research findings and provide recommendations for business organizations, policymakers, regulators, standard-setters, and other stakeholders to support the development of sustainable accounting and reporting practices. This objective entails synthesizing research findings.

Choose Your Stakeholders Make a list of all the relevant stakeholders to begin with. Both internal and external stakeholders are included in this, including employees, management, and shareholders as well as consumers, suppliers, governments, community groups, etc.

Constituent Segmentation: Divide stakeholders into different groups according to their level of influence and dedication to the project or organization. Using this, you may modify your communication tactics.

Recognize the needs and expectations of your customers: Conduct a stakeholder study to discover what each group or individual anticipates from your business or project. What are their primary goals, objectives, and objectives?

Make a communication plan: In a detailed communication plan, specify who needs to be informed, what information must be supplied, how it will be delivered, and how frequently.

Establish precise aims: Make sure your communication efforts have precise aims. What do you want to achieve through dialogue with stakeholders? This can require securing backing, resolving conflicts, or providing updates.

Select the Proper Communication Channels: Select the best strategies to effectively communicate with each group of stakeholders. There are several possibilities, including meetings, emails, reports, social media, websites, and more.

Adapt Your Messages to You: Develop messages that are tailored to the desires and requirements of each stakeholder group. Use language and examples that people can understand.

Talk to each other in two directions: Encourage comments and open conversation. Just as important as educating stakeholders is listening to their worries and suggestions.

Update Stakeholders Frequently: Inform them of milestones, progress, and any alterations or developments that may affect them.

Be Honest and upfront: Even when delivering terrible news or tackling challenging topics, be honest and upfront in your communication. Transparency is the foundation of trust. Controlling expectations Make sure that all parties involved have reasonable expectations on what can be accomplished and when. Be upfront about any restrictions or difficulties.

Seek Participation and Input: Include stakeholders in decision-making processes as necessary and solicit their views. More inclusive and informed judgments may result from this.

Resolve problems Promptly: Respond quickly and professionally to the issues and concerns brought up by the stakeholders. A prompt resolution shows that you care about their requirements.

Measure and evaluate: Determine if your communication efforts have been successful. Assess stakeholder satisfaction using comments, surveys, or other data, and change your strategy as necessary.

Change with the Needs: Be adaptable in how you communicate with stakeholders since their demands and situations may vary over time.

Stakeholder communication that is effective is a continuous process that calls for attention, consideration, and flexibility. It fosters the development of solid bonds, helps control risks, and fosters an atmosphere in which everyone is aware of, involved in, and working toward same objectives.

This could entail formulating best practices for incorporating sustainability considerations into accounting and reporting procedures, advancing regulatory or policy reforms, identifying organizational capacity needs, and formulating methods for enhancing stakeholder participation in sustainable accounting and reporting initiatives. The research can advance knowledge and understanding of the evolution of accounting and reporting practices in commercial organizations in the context of sustainable economic development by focusing on these specific research objectives. It can also offer organizations and policymakers useful recommendations for improving sustainability reporting practices. In general, it is crucial to establish solid accounting and reporting practices that demonstrate the organization's dedication to sustainable economic growth in order to foster long-lasting relationships with stakeholders.

6.4 Benefit Of All This To Accounting As An Entity

In order to encourage sustainable economic development, commercial organizations must develop their accounting and reporting systems. Here are several major advantages:

Increased accountability and transparency: Good accounting and reporting procedures make financial information transparent, enabling decision-making by stakeholders. It makes it possible for creditors, investors, and other stakeholders to evaluate the performance, sustainability, and financial stability of commercial enterprises. Transparent reporting encourages responsibility and confidence, which attracts investment and improves the overall business climate.

Allocating resources wisely Resource allocation is made more effective by using reliable accounting and reporting systems. Organizations can assess the profitability

and viability of various initiatives or investments by correctly gathering and reporting financial information. This enables well-informed decision-making and guarantees that funds are given to projects that are both environmentally and economically feasible.

Regulation and standard observance: Compliance with applicable laws, accounting standards, and reporting obligations is ensured through robust accounting and reporting processes. This supports an atmosphere that is stable for business, helping firms maintain legal and regulatory compliance. Organizations can quantify and disclose their social and environmental impacts by adhering to sustainability reporting standards, such as those set out by the Sustainability Accounting Standards Board (SASB) or the Global Reporting Initiative (GRI). This advances the aims of sustainable development.

Risk identification, assessment, and mitigation are made easier by accounting and reporting systems. Organizations may see possible risks and take proactive steps to reduce them by tracking financial data and critical performance indicators. This contributes to sustainable economic development by increasing financial stability, lowering uncertainty, and protecting the company from unfavorable circumstances.

Participant involvement and decision-making Stakeholder involvement and participation are facilitated by effective accounting and reporting processes. Financial reports are used by stakeholders, such as staff members, investors, clients, and communities, to evaluate the success of the company and make choices. Stakeholders may hold businesses accountable for their environmental, social, and governance (ESG) policies thanks to transparent reporting, which promotes ethical corporate conduct.

In general, the advancement of accounting and reporting in business organizations within the framework of sustainable economic development guarantees transparency, accountability, effective resource management, adherence to legal requirements, and stakeholder involvement. These elements promote long-term economic growth while addressing societal and environmental issues, making the corporate environment more sustainable and resilient.

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APPENDIX 1

Variables measurements and source

Abb.	Variables	Definitions	Measurement Tool	Sources
FP	Financial Performance	Financial performance refers to a company's or organization's ability to generate profits, revenue, or other financial returns.	Financial Development Index	International Monetary Fund
FDI	Foreign Direct Investment	Foreign direct investment refers to investment made by a company or organization in a foreign country or economy.	Foreign direct investment, net inflows (% of GDP)	The World Bank Database indicators
CO2	Carbon Dioxide	CO2 Emission Trading is a market-based mechanism used to reduce carbon emissions by allowing	Carbon dioxide emissions (kg per	The World Bank Database indicators

		companies to buy and sell emissions permits.	2015 US\$ of GDP)	
GG	Green growth	Green growth refers to economic growth that is environmentally sustainable.	Green Growth Index	Global Green Growth Institute
HDI	Human Capital	Human capital refers to the knowledge, skills, and abilities of a company's or organization's workforce.	Human Capital Index Per Person	The Federal Reserve
T	Trade	Trade refers to the exchange or transfer of goods, services, or resources between individuals, businesses, or countries. It involves buying, selling, or bartering goods and services, typically in the context of economic	Trade % of GDP	The World Bank Database indicators

		activity. Trade plays a vital role in promoting economic growth, facilitating specialization, and fostering international relations.		
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APPENDIX 2

Descriptive Statistics

	LFDI	LTRADE	LCO2	LHCI	LFDINV	LGG
Mean	-0.685763	3.76136	-1.127978	1.005303	0.804205	4.059096
Median	-0.597837	3.728656	-1.294195	1.005444	1.039248	4.066802
Maximum	-0.051293	5.126310	0.115021	1.279263	4.097476	4.253056
Minimum	-1.660731	3.031221	-1.707796	0.564706	-4.742113	3.748091
Std. Dev.	0.477854	0.421013	0.463476	0.190141	1.152435	0.123940
Skewness	-0.287006	1.476078	1.405757	-0.423442	-1.379906	-1.162603
Kurtosis	1.868934	6.338464	3.751350	2.695091	8.965933	4.203215
Jarque-Bera	6.234100	76.95969	32.81792	3.139456	167.4345	26.56045
Probability	0.044288	0.000000	0.000000	0.208102	0.000000	0.000002
Sum	-63.77598	349.8786	-104.9020	93.49315	74.79105	377.4959
Sum Sq. Dev.	21.00772	16.30720	19.76255	3.326127	122.1858	1.413221
Observations	93	93	93	93	93	93

APPENDIX 3

Unit-Root Test

ADF- Augmented Dickey-Fuller Test

Panel unit root test: Summary

Series: D(LFDI)

Date: 04/19/23 Time: 19:25

Sample: 2002 2021

Exogenous variables: Individual effects, individual linear trends

User-specified lags: 1

Newey-West automatic bandwidth selection and Bartlett kernel

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-4.81431	0.0000	10	156
Breitung t-stat	-5.31936	0.0000	10	146
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-4.08423	0.0000	10	156
ADF - Fisher Chi-square	52.9568	0.0001	10	156
PP - Fisher Chi-square	120.757	0.0000	10	167

Panel unit root test: Summary

Series: D(LCO2,2)

Date: 04/19/23 Time: 19:38

Sample: 2002 2021

Exogenous variables: Individual effects, individual linear trends

User-specified lags: 1

Newey-West automatic bandwidth selection and Bartlett kernel

Balanced observations for each test

					Cross- section
Method	Statistic	Prob.**	s	Obs	
Null: Unit root (assumes common unit root process)					
Levin, Lin & Chu t*	1.15729	0.8764	10	140	
	-				
Breitung t-stat	3.42972	0.0003	10	130	
Null: Unit root (assumes individual unit root process)					
Im, Pesaran and Shin W-					
stat	4.63078	0.0000	10	140	
ADF - Fisher Chi-square	57.9895	0.0000	10	140	
PP - Fisher Chi-square	159.341	0.0000	10	150	

Panel unit root test: Summary

Series: LTRADE

Date: 04/19/23 Time: 19:33

Sample: 2002 2021

Exogenous variables: Individual effects, individual linear trends

User-specified lags: 1

Newey-West automatic bandwidth selection and Bartlett kernel

Balanced observations for each test

					Cross- sections
Method	Statistic	Prob.**	s	Obs	
Null: Unit root (assumes common unit root process)					
Levin, Lin & Chu t*	-3.24420	0.0006	10	180	
Breitung t-stat	0.81637	0.7929	10	170	
Null: Unit root (assumes individual unit root process)					

Im, Pesaran and Shin W-				
stat	-2.18691	0.0144	10	180
ADF - Fisher Chi-square	39.5336	0.0057	10	180
PP - Fisher Chi-square	49.8409	0.0002	10	190

Panel unit root test: Summary

Series: D(LFDINV)

Date: 04/19/23 Time: 19:40

Sample: 2002 2021

Exogenous variables: Individual effects, individual linear trends

User-specified lags: 1

Newey-West automatic bandwidth selection and Bartlett kernel

Method	Statistic	Prob.**	Cross- sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-5.44813	0.0000	9	139
Breitung t-stat	-4.06695	0.0000	9	130
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-				
stat	-5.97366	0.0000	9	139
ADF - Fisher Chi-square	73.1131	0.0000	9	139
PP - Fisher Chi-square	140.732	0.0000	9	151

Panel unit root test: Summary

Series: D(LGG,2)

Date: 04/19/23 Time: 19:39

Sample: 2002 2021

Exogenous variables: Individual effects, individual linear trends

User-specified lags: 1

Newey-West automatic bandwidth selection and Bartlett kernel

Balanced observations for each test

Cross-

Method	Statistic	Prob.**	sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-4.11259	0.0000	10	80
Breitung t-stat	-2.37594	0.0088	10	70
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-				
stat	-1.22139	0.1110	10	80
ADF - Fisher Chi-square	39.2880	0.0061	10	80
PP - Fisher Chi-square	139.613	0.0000	10	90

Dependent Variable: LFDI

Method: Panel GMM EGLS (Cross-section weights)

Date: 04/19/23 Time: 19:42

Sample (adjusted): 2010 2019

Periods included: 10

Cross-sections included: 10

Total panel (unbalanced) observations: 93

2SLS instrument weighting matrix

Linear estimation after one-step weighting matrix

Instrument specification: C LTRADE LCO2 LHCI LFDINV LGG

Constant added to instrument list

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LTRADE	-0.312838	0.049109	-6.370321	0.0000
LCO2	0.095106	0.044574	2.133665	0.0357
LHCI	1.557745	0.182889	8.517412	0.0000
LFDINV	-0.008823	0.016209	-0.544339	0.5876
LGG	1.072399	0.276283	3.881521	0.0002
C	-5.342720	1.035886	-5.157635	0.0000

Weighted Statistics

Root MSE	0.208593	R-squared	0.909925
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Mean dependent var	-1.005193	Adjusted R-squared	0.904748
S.D. dependent var	0.883157	S.E. of regression	0.215666
Sum squared resid	4.046531	Durbin-Watson stat	0.126594
J-statistic	3.45E-18	Instrument rank	6

Unweighted Statistics

R-squared	0.760353	Mean dependent var	-0.685763
Sum squared resid	5.034445	Durbin-Watson stat	0.041044

APPENDIX 4

Co-Integration Test

Pedroni Residual Cointegration Test

Series: LFDI LTRADE LCO2 LHCI LFDINV LGG

Date: 04/24/23 Time: 13:59

Sample: 2002 2021

Included observations: 200

Cross-sections included: 7 (3 dropped)

Null Hypothesis: No cointegration

Trend assumption: Deterministic intercept and trend

Automatic lag length selection based on SIC with a max lag of 0

Newey-West automatic bandwidth selection and Bartlett kernel

Alternative hypothesis: common AR coefs. (within-dimension)

	<u>Statistic</u>	<u>Prob.</u>	Weighted	
	<u>Statistic</u>	<u>Prob.</u>	<u>Statistic</u>	<u>Prob.</u>
Panel v-Statistic	-1.859247	0.9685	-3.473997	0.9997
Panel rho-Statistic	3.663548	0.9999	4.139086	1.0000
Panel PP-Statistic	-5.338956	0.0000	-4.619474	0.0000
Panel ADF-Statistic	-1.782864	0.0373	-0.252196	0.4004

Alternative hypothesis: individual AR coefs. (between-dimension)

	<u>Statistic</u>	<u>Prob.</u>
Group rho-Statistic	4.726064	1.0000
Group PP-Statistic	-9.796520	0.0000
Group ADF-Statistic	-1.634937	0.0510

Panel Generalized Method of Moments

Dependent Variable: LFDI

Method: Panel Generalized Method of Moments

Date: 04/24/23 Time: 14:07

Sample (adjusted): 2010 2019

Periods included: 10

Cross-sections included: 10

Total panel (unbalanced) observations: 93

2SLS instrument weighting matrix

Instrument specification: C LTRADE LCO2 LHCI LFDINV LGG

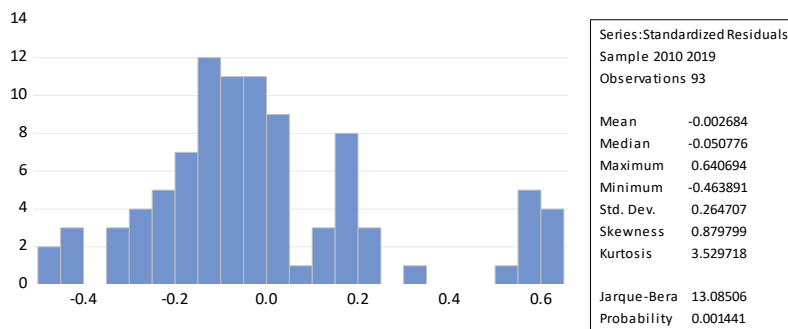
Constant added to instrument list

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LTRADE	-0.264324	0.083346	-3.171417	0.0021
LCO2	0.114104	0.061345	1.860051	0.0662
LHCI	2.461523	0.169969	14.48215	0.0000
LFDINV	0.002429	0.027767	0.087467	0.9305
LGG	-0.501707	0.087086	-5.761027	0.0000
Root MSE	0.263293	R-squared	0.693109	
Mean dependent var	-0.685763	Adjusted R-squared	0.679159	
S.D. dependent var	0.477854	S.E. of regression	0.270670	
Sum squared resid	6.447080	Durbin-Watson stat	0.031812	
J-statistic	24.10104	Instrument rank	6	
Prob(J-statistic)	0.000001			

APPENDIX 5

RESIDUAL DIAGNOSTIC TEST

NORMALITY-HISTOGRAM TEST



APPENDIX 5

SERIAL CORRELATION LM TEST

Arellano-Bond Serial Correlation Test

Equation: Untitled

Date: 04/24/23 Time: 14:21

Sample: 2002 2021

Included observations: 83

Test order	m- Statistic	rho	SE(rho)	Prob.
AR(1)	0.967606	0.010308	0.010653	0.3332

APPENDIX 6
GRANGER CASUALITY TEST

Pairwise Granger Causality Tests

Date: 04/24/23 Time: 14:26

Sample: 2002 2021

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
LTRADE does not Granger Cause LFDI	167	1.12075	0.3285
LFDI does not Granger Cause LTRADE		1.22080	0.2977
LCO2 does not Granger Cause LFDI	157	0.78271	0.4590
LFDI does not Granger Cause LCO2		0.25906	0.7721
LHCI does not Granger Cause LFDI	156	1.93916	0.1474
LFDI does not Granger Cause LHCI		110.581	3.E-30
LFDINV does not Granger Cause LFDI	144	0.04578	0.9553
LFDI does not Granger Cause LFDINV		1.22034	0.2983
LGG does not Granger Cause LFDI	87	0.71277	0.4933
LFDI does not Granger Cause LGG		1.93437	0.1511
LCO2 does not Granger Cause LTRADE	160	0.56942	0.5670
LTRADE does not Granger Cause LCO2		2.04159	0.1333
LHCI does not Granger Cause LTRADE	159	0.74880	0.4746
LTRADE does not Granger Cause LHCI		3.44539	0.0344
LFDINV does not Granger Cause LTRADE	157	0.86578	0.4228
LTRADE does not Granger Cause LFDINV		2.01759	0.1365
LGG does not Granger Cause LTRADE	100	7.45802	0.0010
LTRADE does not Granger Cause LGG		0.11603	0.8906
LHCI does not Granger Cause LCO2	159	0.71789	0.4894

LCO2 does not Granger Cause LHCI		2.58891	0.0784
LFDINV does not Granger Cause LCO2	138	0.26835	0.7651
LCO2 does not Granger Cause LFDINV		0.21333	0.8082
LGG does not Granger Cause LCO2	80	1.10505	0.3365
LCO2 does not Granger Cause LGG		0.82066	0.4441
LFDINV does not Granger Cause LHCI	137	1.05679	0.3505
LHCI does not Granger Cause LFDINV		6.46080	0.0021
LGG does not Granger Cause LHCI	80	3.20017	0.0464
LHCI does not Granger Cause LGG		2.26000	0.1114
LGG does not Granger Cause LFDINV	89	2.46910	0.0908
LFDINV does not Granger Cause LGG		1.38282	0.2565

APPENDIX – FIGURES

FIGURE 1

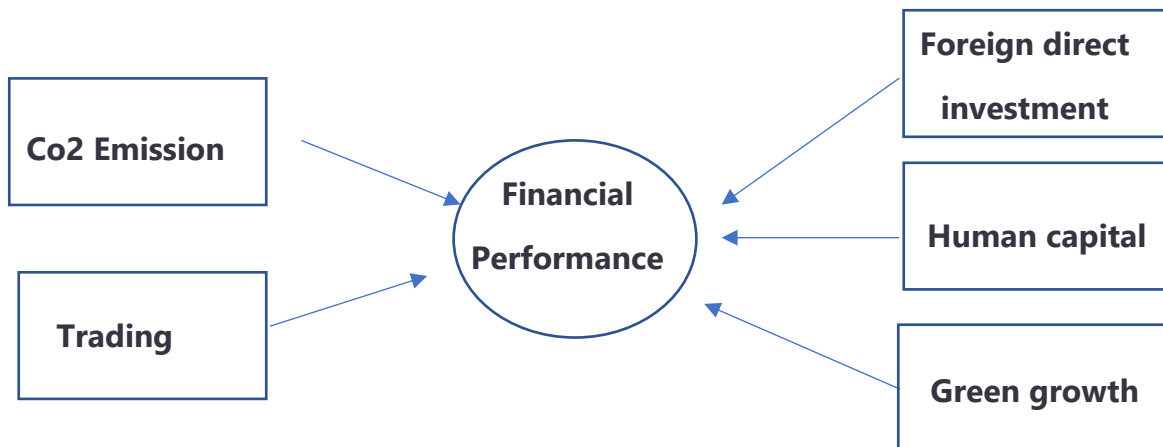


FIGURE 2:

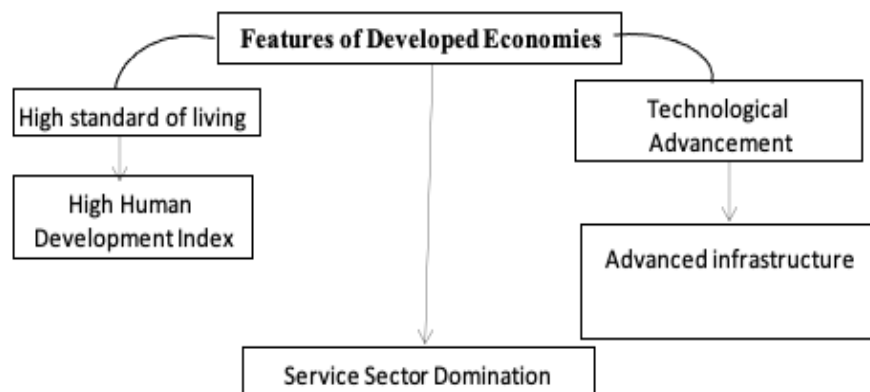
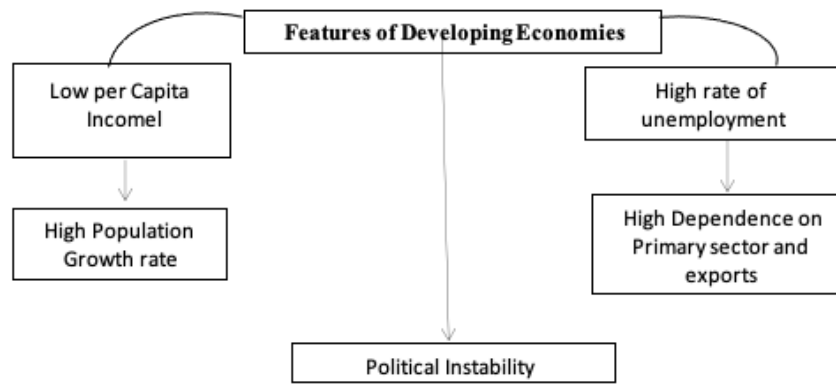


FIGURE 3:

Appendix X

Turnitin Similarity Report

ESTHER ASUKWO-20206724-Master thesis_ DEVELOPMENT OF ACCOUNTING AND REPORTING IN COMMERCIAL ORGANIZATIONS IN THE CONTEXT OF SUSTAINABLE ECONOMIC DEVELOPMENT

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APPENDIX- ETHICS COMMITTEE FORM**SCIENTIFIC RESEARCH ETHICS COMMITTEE**

05.06.2023

Dear Esther Asukwo Uye

Your project **“Development of accounting and reporting in commercial organizations in the context of sustainable economic development”** has been evaluated. Since only secondary data will be used the project does not need to go through the ethics committee. You can start your research on the condition that you will use only secondary data.

Prof. Dr. Aşkın KİRAZ
The Coordinator of the Scientific Research Ethics Committee