Impact of ESG on the Financial Performance of Banks

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Abstract

Given an increasing interest in environmental, social, and governance (also known as ESG) and their financial performance, we researched at banks from BRICS countries such as China, Russia, Brazil, India, and South Africa and aim to address the research gap in study. while examining banking sector business, and the scarcity of studies investigating emerging companies and the effect from ESG pillars on financial performance. The aggregate ESG score, as well as its components, are conducted to analyze their effect on the financial performance while, accounting-based method such as return on assets (ROA) and return on equity (ROE) is factored into an equation. To inspect our hypothesis, we utilized regression (linear) having panel data from the Thomson Reuters database to evaluate data from 161 listed banks of BRICS countries from 2016 to 2020. Our study provide evidence of ESG performance companies having positive correlation with financial performance of banks. We also investigated at the environmental, governance, and social pillars directly in relation to the financial performance and discovered a positive correlation well with control variables of size and GDP.

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Chapter # 1: Introduction

Environmental, Social, and Governance (ESG) financing has gotten a lot of attention since the 1990s. ESG is a concept officially approved by the United Nations Global Compact with the title of “Who Cares Wins” started to emphasize on analysts and investors on the materiality of and interrelation of ESG issues. Climate change increases the number of ESG material risk factors as we move ahead. A vast number of businesses have developed environmental policies that go beyond environmental laws in designed to eliminate their energy consumption, provide green products or technology to their customers, and decrease their environmental footprint. Sustainable financing along with socially ethical, responsible, and ESG investing is, increasingly acquiring a foothold in the financial market. In a recent study by PWC, 77% of investors will put to the end of purchasing non-sustainable products by the end of 2025. Largest 250 companies in the world present 93% of rumors on the performance of ESG. Companies are looking forward to focusing on the financial term and reach to bound with ESG sustainability (Alshehhi, Nobanee, & Khare, 2018). Furthermore, analysts and Investors contemplate the ESG issues in their basal analysis of business to proactively direct the ESG issues to generate better financial performance than competitors in long term. Capital markets play an integral role in bringing investment within the economy to help in managing prosperity and growth. Financial intermediaries (such as banks) are said to contribute to sustainable financing development that fulfills the need of current, without compromising the capacity of prosperity.

To ensure enduring economic development and financial stability globally, the banking industry needs to substantially change its actions and attitudes to encourage better sustainable and responsible concern practices. As the world begins to look towards a low-carbon economy and that will make complexities for financial firms and now banks are not prepared for conduct risk that could emerge -one in term of direct risk (such as the physical effect of climate change on the company assets) and another is transition risk need for significant adoption of ESG. Institutional investors will also build pressure on the banks. With the progress of time, the establishment of ESG factors expanding that also increases material risks due to climate change. As material risk can be managed so, investors want them to manage the risks and ensure ROI. Moreover, customers demand from firms to select those banks that focus on ESG criteria and their beliefs, views reflect by ESG credentials. These ESG issues and challenges have intense implications for companies, society, and the economy at large, however, ESG issues and challenges have especially related to banks performing financial activities to boost financial performance.

Many studies pointed out that, despite recent obstacles, the scale of green shift in culture has grown as a result of the epidemic (Martin, 2020). There are two points to consider about though. Namely that, in the context of the Globe Health Organization's (WHO) phrase throughout the pandemic, "no one is safe until everyone is safe," the world's future and sustainability are dependent on all regions' activity around the world. The second point is that, while some countries have achieved substantial progress in terms of sustainability laws, policies, and reporting, others have gone far behind. On the other hand, the majority of emerging economies have made slower progress since their economies are focused on micro businesses, and there are excess supply chain difficulties to contemplate. Organizational factors, as well as a lack of quality data, are two major Road blocks. Due to the obvious increased opacity, corruption, and political upheaval in emerging economies, they are at a higher risk of institutional collapse (Gao et al., 2017). These factors have an impact on corporate behavior and, more broadly, on people's confidence in the country's system and agencies. Although bank-based financing is much more prominent in emerging economies, we will concentrate on the banking sector's basic role in this chapter.

1.1 Problem statement

Friede et al. (2015) state that evidence about the relationships between financial performance and ESG factors is still shattered. Some researchers have examined at prospective variations in ESG and Financial Performance between different areas. Some researchers discovered a positive relationship between ESG and financial performance in BRICS (emerging) economies, which was much greater than in developed economies.

However, countries with greater economic development, such as the BRICS, may be able to encourage firms to participate further in ESG activities, reducing the long-term impact of ESG costs (Peiro-Signes and Segarra-Ona, 2013). As result, our research is essential as it covers these two challenges, and also the lack of observed findings from the emerging economies.

When it comes to flea market with a rarer developed country, the ESG past research may be even rarer (Orsato et al., 2015). As a result, the link between the financial performance of firms traded in emerging economies belonging to the BRICS group, and the ESG performance is analyzed in depth. Due to the constrained social and environmental demand in BRICS nations, ESG activities are expected to be in higher necessity than in developed markets (Dobers and Halme, 2009; Baughn et al., 2007). In this approach, our research contributes to a clearer sense of ESG performance in the economies anywhere it impacts the most.

1.2 Gap Analysis

Friede et al. (2015) observed no significant impacts in the ESG and CFP connection so far, whereas primary research stretching back to the 1990s have revealed a factor contributed pattern. When comparing the performance of developing-country firms to those of developed-country companies, several studies revealed considerable differences. Garcia and Orsato (2020) discover a substantial and positive correlation among ESG performance, and the financial performance at firms in developed countries, but a negative relationship between ESG and financial performance at companies in growing countries. However, recent research by Whelan et al. (2021) identifies more than 200 empirical research articles throughout 2015 that suggest that ESG improves downside protection and boosts financial performance particularly during an economic or social disaster. This research is important and useful for 3 purposes. Initially, Friede et al. (2015) state that evidence about the relationships between financial performance and ESG factors is still shattered. Several researchers examined at prospective variations in ESG and Financial Performance between different areas. Some researchers discovered a positive connection between ESG and the financial performance in the developing economies, which was much greater than in developed economies.

With emerging economies, such as the BRICs, anticipated to account for half of global GDP by 2050 (Chengetal., 2007), the operations of firms from emerging markets will have a significant impact on the global commercial and economic arena.

Dobers and Halme (2009) stated that both economic factors and the institutional environment of these economies, impact the nature, and degree of acceptance of ESG practices. The socio-economic context and Political difficulties and appear to help clarify the performance differences, when compared to developed economies, In parallel to this research gap in the banking industry, we examine the ESG performance of the company in these countries.

1.3 Objectives

- The purpose of this paper is to examine the relationship between ESG and financial performance as whole and individually through each factor of ESG.

1.4 Research Question

Is there any relationship between the ESG, and the financial performance among Public Listed banks in BRICS?

1.5 Significance

- The significance of this study is that it will increase understanding of the impact of environmental, social, and governance (ESG) factors on bank core business.
- This research presents a variety of applications. Commercial banks, for instance, will be aware of the key ESG factors metrics to which they should pay significant attention and will be able to quantify how those factors/metrics impact their financial performance.
- Investors can use their funds to effect real change for social or environmental objectives, such as accelerating the economy's emission reductions in commercial banks.

1.6 Delimitations

- There are a lot of methods for ESG material assessment but due to lack of time, the current paper only focuses on financial accounting methods.
- Limited to commercial banks in BRICS countries

Chapter # 2: Literature Review

2.1. ESG Overview

Previously published relevant literature on the implication on the performance of sustainable practices has raised various viewpoints. One of the viewpoints is that investment is effective from the perspective of shareholders. For instance, more noteworthy maintainability execution would prompt better assets (Cochran & Wood, 1984; Waddock & Graves, 1997), better quality workers (Turban & Greening, 1997), and better product and service marketing (Cochran & Wood, 1984; Waddock & Graves, 1997) (Moskowitz, 1972; Fombrun, 1996). It is important to have standardized and consistently comparable CSR data in CSR research. However, defining the exact concept of CSR is challenging, and hence there is a major disagreement. The UN Principles of Responsible Investment report (which was the first to propose the ESG idea) suggests that investors consider ESG scores a significant factor in their investment decisions. In particular, ESG scores have been frequently used among management consulting firms and investors to evaluate an overall company's CSR performance. ESG is a technique for assessing an organization's natural, social, and corporate administration exercises and coordinate the firm exhibition. The natural exhibition of an organization shows its endeavors to eliminate asset utilization and outflows. Common freedoms, work quality, item obligation, and local area relations are on the whole signs of an organization's social achievement. At last, an organization's corporate administration execution mirrors the administration's freedoms and commitments (administration structure). Although the idea of ESG is relatively new, there are several types of research on the relationship between ESG and company value or operating performance. (Miralles-Quirós, M. M., Miralles-Quirós, J. L., & Valente Gonçalves, L. M. (2018) The BRICS countries are the world's largest, with a sizable population and significant potential involvement in supply chain; as both a response, their actions and decisions can have a substantial influence on the environment. This means that, in the post-pandemic period, there will be a need to strive for'smart' fiscal policies like government investment outlay, preferably focused to sustainable projects, especially in large emerging markets like the BRICS (see, for example, O'Neill, 2021).

2.2. The significance of (ESG) reporting

Advocates for manageability revealing consider that reassuring ESG straightforwardness will benefit both the firm and its partners. Supportability detailing is normally improved because of measures that lead to better outside and inside direction, more straightforwardness, and monetary soundness while likewise adding to an all the more socially feasible future (Eccles et al., 2015; Eccles and Saltzman, 2011; Krzus, 2011). Besides, it gives the higher perspective of an association's possible presentation by introducing both monetary and non-monetary outcomes (Jensen and Berg, 2012).

2.3. ESG advancements and the banks' role:

For the EU and the US, the ESG literature is highly established, however there is less research accessible, and regulations is less well established in emerging markets. Duttagupta and Pazarbasioglu (2021) state that while emerging economies are distinct and defy a consistent view, they share several characteristics, such as persistent access to markets, development toward middle-income rank, and increased economic value. These economies are typically much more involved in global markets, than just the majority of developing economies, which justifies the study's focus on BRICS. The BRICS countries are the world's largest, with a sizable population and significant potential involvement in supply chain; as both a response, their actions and decisions can have a substantial influence on the environment. This means that, in the post-pandemic period, there will be a need to strive for 'smart' fiscal policies like government investment outlay, preferably focused to sustainable projects, especially in large emerging markets like the BRICS (see, for example, O'Neill, 2021). Banks have a twofold duty in this context, not only because they are firms, but also because they have the capacity to select and finance environmentally friendly firms and projects in emerging markets, this influence significantly on environment. This implies that when banks lend to polluting companies or firms that mistreat or prejudice against their workforce, they are indirectly harming the environment or violating human rights. Furthermore, analysis provides evidence that banks that place a higher priority on social performance are more resilient and far less risky (Bouslah et al., 2018), resulting and in a much more sustainable banking world globally. Similarly, Azmi et al. (2021) discover that environmentally friendly initiatives have the highest impact on bank worth and pointing to a positive correlation between ESG performance and both cash flows and efficiency.

Some progress has been achieved in the last two decades, as banks have begun to explore sustainability practices and many have signed or accepted global commitments that share ESG objectives. Despite this, according to a Bloomberg study from 2019, banks have barely engaged with "responsible banking" only just for symbolically. Despite the fact that corporate financing geared to decreasing emissions, or food waste increased eightfold to $36.4 billion in 2018, according to the Bloomberg research[1], sustainable borrowing remains a modest part of overall financing. On other end, ESG risks may affect banks both directly (if, for example, their facilities are harmed by harsh weather) and indirectly (via more loan defaults among their customers). According to research conducted by KPMG (2021)[2], banking industry faced both financial, and non-financial ESG risks. The latter refers to the impact of ESG improvements across both banks' and their clients' business strategies. While the other is concerned with the effect of banks' activities on social or environmental challenges, suffered by banking industry. Over the last years, a number of significant forces and causes have evolved that have affected the transition to even more ESG-related initiatives in developing economies. Changes in climate, financial and social disparities, governance, and, most notably, the influence of the Covid-19 epidemic are among them.

We identify two primary approaches to ESG norms and regulation in BRICS:

i) a softer strategy used by Russia, Brazil, and South Africa, based on disclosure practices;

ii) a stiffer approach followed by India, and China, based on obligatory disclosure with consequences and incentives.

Public listed firms are also required to disclose sustainability practices adoption by favoring the spread of internationally recognized accounting frameworks such as the Global Reporting Initiative framework and the signatory of environmental and social sustainability agreements

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[1] Bloomberg News (2019) Banks can't afford to ignore the $30.7 trillion market for doing good, 20th May, accessed on 21st June, https://www.bloomberg.com/professional/blog/banks-cant-affordignore-market-good

[2] KPMG International (2021). ESG risks in banks, access on 21st June, www.home.kpmg/xx/en/home/insights/2021/05/esg-risks-in-banks.html

like the UN Global Compact. Specifically, the aim of the GRI initiative consists of improving the accountability and value of social, environmental and governance activities[3]. It is an optional structure that can be adopted by firms worldwide which, by complying with their guidelines are able to harmonize the disclosure of CSR practices. Similarly, the United Nations Global Compact is indeed a call to companies all around the globe to align their plans with ten fundamental sustainability practices in the domain of human rights, the environment, labor, and corruption.

2.4. ESG and financial performance

ESG concerns are those that are possible to have an influence on the financial position or effective performance of firms in specific sector, such as governance, sustainability, or societal aspects. However, not all ESG challenges are created equal: their relative relevance varies by firm, industry, and even area. Banks recognize that consuming capital rather than revenue is unsustainable. Normalcy is no longer acceptable, and a shift to a more sustainable global economy is required. Banks must include environmental, social, and governance (ESG) concerns into their activities as a result of this.

Previously published relevant literature on the implication on the performance of sustainable practices has raised various viewpoints. One of the viewpoints is that investment is effective from the perspective of shareholders. For instance, more noteworthy maintainability execution would prompt better assets (Cochran & Wood, 1984; Waddock & Graves, 1997), better quality workers (Turban & Greening, 1997), and better product and service marketing (Cochran & Wood, 1984; Waddock & Graves, 1997) (Moskowitz, 1972; Fombrun, 1996).

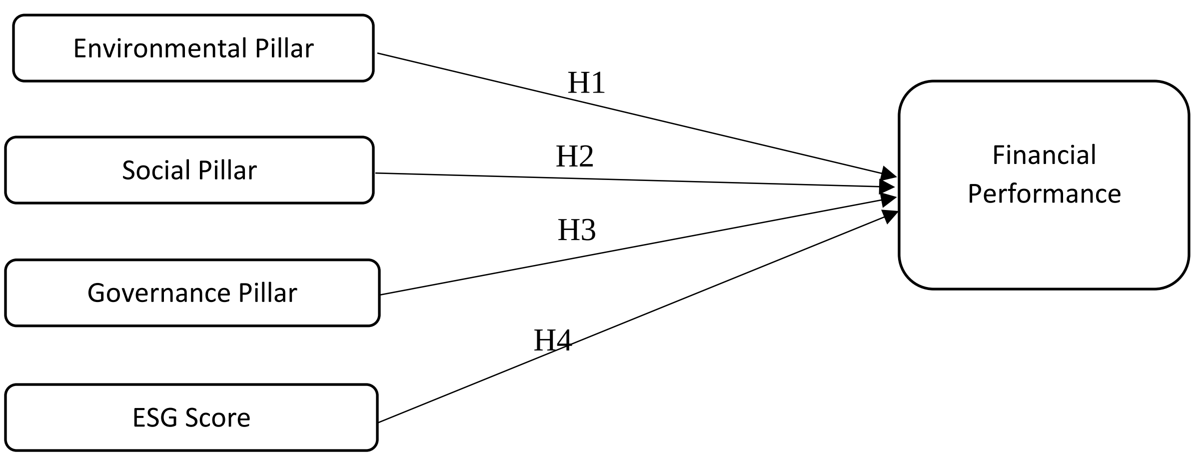
Potential investors & the financial industry evaluate a company's output by seeing at how it handles its investment and, as a result, investments it makes for decisions (Dempsey, 2003). According to the asset approach (Barney, 2001), organizations that concentrate on the material (i.e., more stable to investment firms, top management, and other stakeholders), CSR concerns are more efficient than firms that invest in immaterial issues. That's because such investments in much more significant and influential for the stakeholder interests in the business shows that the firm knows what is most essential to their business in a specific sector, and can be seen by

[3] Global Reporting Initiative (GRI). (2011). G3.1 Sustainability Reporting Guidelines: Reporting Principles and Standard Disclosures.

investors as effective management insight in risk management capabilities (Anderson & Anderson, 2009). The compelling utilization of restricted assets in materiality will be particularly profoundly acknowledged given the business' potentially the best seriousness, high business dangers, and tight net revenues (Kim, Lee, & Kang, 2018; Raab, Shoemaker, & Mayer, 2007)

The relationship between ESG performance and company financial profitability was investigated for banks across the globe (Buallay, 2019a; Cornett et al., 2016; Esteban-Sanchez et al., 2017; Gangi et al., 2019; Siueia et al., 2019), however the results have been mixed. Horvathova (2010) believes that three decades of evidence-based literature on the effect of environmental performance on company performance is unclear due to selection bias, study limitations, and uneven assessment of primary variables.

2.5. Framework



2.6. ESG & firm profitability

Over the last decade or so, there has been a significant amount of literature concentrating on the influence of Corporate Social Responsibility (CSR) on liability and equity costs. However, very little study has been done on the effect of ESG issues, which are different concepts from Corporate Social Responsibility, and there is minimal literature on the specific influences of ESG issues using SASB on the commercial banking sector. To understand the new opinions, this research paper can contribute to the published literature, it's important to understand the key differences between ESG and CSR. Bradley et al. (2004) stated that 'CSR is concerned on how a company treats its stakeholders ethically or responsibly'. CSR metrics, in particular, look at the various sorts of products that a firm sells to see if those products are socially responsible. For example, if a business sells tobacco or guns, CSR contends that these commodities are harmful to the community, a stakeholder in this circumstance, and are unethical; companies that engage in these activities are not practicing good CSR. On other hand, ECG is much less concerned about the ethical behavior of firms but rather looks at environmental, social, and governance issues and whether any of these activities/practices are harming the business financials. In fact, ESG is looking carefully through quantitative criteria rather than the moral.

In a meta-analysis of 52 pieces of empirical evidence, Orlitzky et al. (2003) discovered that CSP is related positively to a firm's performance, with the connection being contemporaneous and bi-directional. They also observed that CSP metrics were more strongly connected to accounting-based indices of company performance (such as ROAand ROE) than market-based indicators (such as share price).

Godfrey (2005) suggests that good activities earn chits to investigate the relationship between the manifestation of CSR and shareholder wealth. He establishes three important assumptions in particular: (1) that commercial philanthropy may help communities and stakeholders to generate good moral capital,

Barnea and Rubin (2010), CEOs in challenging business sectors were unethical managers who utilized CSR to enhance their own private reputation, gaining advantages as social citizens at the expense of shareholder wealth. Clarkson et al. (2011) show that corporations that made social disclosures had superior environmental performance.

Clark et al. (2014) states, their seem to be 2 kinds of ESG findings have got conducted. For instance, researchers have examined individual ESG aspects (such as governance) and examined associations with company performance. The researchers argue that 85% of ESG research only focuses on one part of ESG at a time, rather than all three. The second type of research study focused on funds. Researchers investigate set of SRI funds to a group of assets of non-SRI funds to measure the financial profitability, and market value, and stock returns (e.g., Brammer et al., 2006). The results have also been varied, with several studies reporting, no significant variation between SRI as well as non-SRI funds (Clark et al., 2014).

2.7. ESG and Firm Value

Non-financial performances, such as social & environmental performance in long term, lead to a higher assessment of listed companies (Bassen and Kovàcs, 2008; Porter and Kramer, 2011; Al-Najjar and Anfimiadou, 2012).

Eccles et al. (2014) investigate the effects of voluntary social and environmental inclusion on financial and non - financial performance. Based on the implementation of social and environmental company policies in the back 1990s, they define High and Low Sustainability firms. The authors examine the performance of the two groups' stock returns from 1993 to 2010. The result shows High Sustainability businesses outperform their peers in both value & equal-weighted portfolios. According to the authors, investing $1 in the High Sustainability worth (equal) weighted portfolio in 1993 would increase to $22.6 ($14.3), whereas the Low Sustainability investment would rise to $15.4 ($11.7).

Aouadi, A., & Marsat, S. (2018) examine the correlation between environmental, social, and governance (ESG) issues and the market value of a firm. This research features a separate dataset between 2002 to 2011 which includes over 4000 companies from 58 countries, and its primary analysis reveals that ESG issues are connected with higher business value. When combined with the corporate social performance (CSP) score, however, ESG issues have no direct impact on company value, although the interaction is highly and substantially positive. This study explores the methods via which CSP might increase market value based on this evidence.

Yoon, B., Lee, J. H., & Byun, R. (2018), have studies on developed nations, in which they concluded that CSR activities have a positive and substantial impact on a company's market. However, the influence on stock prices varies depending on the characteristics of the company. The value-creating impact of CSR is less for companies in environmentally sensitive sectors than for companies in non-sensitive sectors. Corporate governance practices, in particular, hurt the value of environmentally sensitive companies.

Broger et al. (2013) discover that corporations with good sustainability performance have higher risk-adjusted returns within the future. Dimson, karakas & Li (2014) appear that after successful commitment, especially on ESG issues, the firm's expertise enhanced accounting performance. The UNPRI (United Nations Principles for Responsible Investment) in 2014 had 1260 signatories with 45 trillion dollars in resources beneath management, who had devoted to six principles 'recognizing the materiality of ESG issues.

However, an expanding number of firms have been unveiling sustainable information, developing from less than thirty within the early 1990s to more than seven thousand in 2014. Given this scenery, understanding the worth implications of ESG has been a concern to a large audience (Serafeim 2014)

This research investigates the material ESG issues which have financial implications rigorously recognized by SASB, unlike literature (Cooper and Hatice 2015; Ge and Liu 2015), which both embed factors into the CSR analysis that have not been shown financial connection and, for those that do, are not material for the numerous firms they evaluated.

One of the criticisms raised by Krueger's (2015) empirical research examining the relationship between ESG and financial performance fails to distinguish between correlation and cause.

Only around 10% of global professionals receive formal training on how to use ESG criteria in investment analysis, and less than a quarter of investment professionals often incorporate additional information in their investment decisions (EY 2015). (CFA 2015).

Serafeim et al. (2016) found that businesses with significant ratings on material sustainability concerns outperform businesses with low ratings on these issues and vice versa using these calendar-time asset allocation market returns regressions and company panel regression analysis.

Giese, Lee, Melas, Nagy, and Nishikawa (2017) demonstrated that valuation levels can be measured in a variety of ways, including using fundamental valuation ratios like book-to-price or book-to-earnings or effectively looking at stock price movements while monitoring for the market and other aspects. In recent decades, many academic and financial advisory industry researchers have investigated the relationship between a company's ESG profile and its financial risk & performance characteristics.

Many studies have examined the influence of internal controls (such as Tobin's Q and the price-to-book ratio) on company value. Investors trust has been implemented to enhance as a result of deliberate governance, resulting in increased economic value (Bauer et al., 2004; Bebchuk et al., 2010; Gompers et al., 2003; Lemmon and Lins, 2003; Siagian et al., 2013).

In general, previous research has found positive correlations between sustainability and company value. However, other researchers (e.g., Brammer et al., 2006; Fisher-Vanden and Thorburn, 2011) show negative correlations between stock price performance & sustainability indicators. Considering the previous research, the following is the hypothesis for the relationship between material ESG factors with company value in this study.

2.8. Environmental performance and financial performance

Due to the extremely increased expenditure required, CSR may become a financial strain for businesses. Some businesses opt to engage in CSR efforts to be socially accountable. The company's excessive involvement in CSR initiatives is being questioned as to whether it puts them at a financially great disadvantage in contrast to others (Liu et al., 2017). Companies discovered that company carbon emissions had a negative correlation with economic success in UK research (Liu et al., 2017). It clarifies the direct impact, but there is a positive correlation between corporate carbon emissions and disclosures in the case of indirect effects (Liu et al., 2017). In other terms, firms with greater emissions were required to disclose more information (Busch and Hoffmann, 2011). The outcome is encouraging since it shows that higher emissions may be offset by more transparency. Furthermore, Ziegler et al. (2011) revealed a positive link between company carbon disclosures and greater stock returns.

whether CSR has a good or bad effect on shareholder value is a point of contention. The stakeholder hypothesis illustrates how CSR and shareholder value interact (Freeman, 2010).

Shareholders are the firm's most important stakeholders, and the firm should act in the best interest interests and carry out its commercial activities to meet shareholders' responsibilities. according to academics, consumer boycotts of the company's products and services, as well as the possibility of sanctions, might reduce shareholder value (Eccles et al., 2014).

Similarly, failure to implement environmental regulations has been linked to the erosion of shareholder capital, (Marie-Louise and Juliane, 2017; Ming-Te, 2016). When it comes to the firm's financial and environmental performance, it is clear that there is a wealth of theoretical and empirical literature on both sides of the coin.

2.9. Environmental view of the banking Sectors

The Refinitiv Eikon database contains thirty-four environmental pillar score indicators organized in three Energy and water proficiency guidelines, ecological arrangement, all out water and energy utilization, maintainable energy use proportion, green structures, and production network execution and administration are generally parts of asset use efficiencies (Env RU). The following components make up Emission as well as Waste Reductions (Env EM): emission guidelines and goals; total CO2 greenhouse gases; secondary and Extent 3 emissions to earnings; climate change possibilities; waste disposal; e-waste reduced; preservation of natural resources; staff transportation economic impacts; environmental expenses and earnings. The analysis section relates these metrics to the literature on performance and environmental in the banking sector.

Theoretical assumptions on the connection between environmental, social, governance and financial performance. The environmental obligations of a bank examined from several aspects (Gangi et al., 2019) the bank's overall efficiently and more effectively use of resources, the advantages of financing environmentally responsible initiatives, and the risks of lending funds to filthy sectors. As a result, banks are actively associated with environmental protection efforts both within the company and with their customers and stakeholders. Although banks really aren't industrial providers, their acts can be summarized as "cleaner production."

Environmental activities can be divided into the following categories: (a) environmental corporate strategy, such as preferable lending to creative and innovative ecofriendly companies; (b) credit risk assessment scanning of damaging to the environment initiatives; (c) environmental generosity, such as gift items for greener activities; (d) discretionary reductions, including less business trips; (e) eco-sociable facilities, including the electronic banking applications usage ; and (f) sustainable sources. Stakeholders can evaluate a value of bank and outcomes in the sector if it is transparent about its own environmental initiatives, and performances (Scholtens, 2009).

Environmental performance (Dragomir, 2018) refers to the financial and non-financial impacts of a bank's operations as assessed by a variety of metrics including indirectly recycled trash, usage of water, and expenses relevant to environment. Environmental disclosure, on the other hand, describes to the publication of data about a firm's environmental effects, commitment announcements, devoted items, and awards.

Whenever a bank is engaged with contamination anticipation exercises, either for itself or as a team with clients, the normal asset-based view affirms that ecological enhancements can prompt superior benefit. As per Hart (1995), pROActive ecological arranging can bring about the production of novel corporate skills which give a strategic advantage. Key preparation, item advancement, partner appROAch, plan creation, worker preparing, and natural effect lessening motivations are instances of these capacities (Bansal and Gao, 2006; Perrini et al., 2011; Sharma and Vredenburg, 1998).

Environmental resources, such as pollution preventive and control, can help improve the company (Fiordelisi et al., 2013). Emission controls consists of actions such as waste removal, disposal, and treatment which aim to keep harmful emissions within reasonable parameters (Dragomir, 2020). on the other contrary, e Environmental protection involves reducing harmful emissions by producing quality utilization material relevant to office, water, energy. The resource-based approach to environmental planning expects environmental protection and product stewardship, becomes a competitive edge through distinction or cost reductions (Hart, 1995). Banking firms are important stakeholders in any operating company, and its impact on management methods should never be undervalued (Dixon and Coulson, 1995). Banks which consider environmental factors while determining lending decisions would be likely choose the lenders that are less risky, and even more creative. The development and allocation of "green" financial services and products (for example, climate products, environmental financial advisory, and socially accountable saver tools) are ways for a bank to demonstrate its commitment to sustainability. Banks, on the other side, avoiding mortgage applications from dirty companies is a crucial component of environmentally responsible initiatives (Scholtens, 2009).

Given the potential environmental liabilities as well as penalties, this action reduces the loan risk connected with the borrower's solvency (Thompson and Cowton, 2004). The borrower can use the evaluation of the customer's environmental factors to help minimize risk and promote operational procedures. In this way, the bank may improve its own environmental skills and information as well as those of its clients. Environmental risk analysis, on the other hand, might raise the rate of borrowing and act as a Roadblock in the loan approval process (Coulson and Monks, 1999)

According to instrumental stakeholder theory, an accountable bank satisfies societal expectations while distributing quality of the environment throughout its value-chain (Dixon-Fowler et al., 2013). The banks can also have an impact on their customers' environmental practices, particularly in the case and companies which are medium and small size. The sustainable investment companies are critical for providing assistance to creative startup as well as other businesses that intend to operate in an environmentally friendly manner (Laguir et al., 2018). In terms of the latter's environmental management, however, there is informational asymmetry between lenders and financial firms (Gangi et al., 2019). To examine the environmental effects of lending agreements, banks can utilize tools including overall industrial rules, ISO certifications, customer surveys, and process checks (Coulson and Monks, 1999). The implementation of an environmental strategy for internal usage, as well as for lenders and other clients, will result from the establishment of a comprehensive sustainability policy. For instance, a bank's repute can be improved by making statements about philanthropic contributions to environmentalism and obtaining ‘ISO 14001’ accreditation (Jacobs et al., 2010). Green building certificate is another option for environmentally concerned banks, as it allows them to leverage on public call for company environmental consciousness.

Environmental activities would benefit businesses in general, increasing product and service innovation and putting them upon that pathway to competitive edge (Russo and Fouts, 1997). Although there appears to be a positive correlation between business financial performance, and environmental management (Albertini, 2013; Dixon-Fowler et al., 2013), study findings are Varying across sectors of the economy. The preceding reflections support the following hypothesis:

H1: There is a positive relationship between environmental pillar and financial performance of bank

2.10. Social performance and financial performance

To generate profits, companies conduct their operations in diverse places. The basic goal of businesses is to maximize profits. They do, however, have duties to the society in which they operate. CSP is the company's reaction to the expectations of its stakeholders. Stakeholder theory is tied to CSP (Freeman, 1984). According to the theory, serving the needs of many stakeholders increases the success of products and services as well as a firm's earnings performance (Freeman, 2010). Since shareholders are more interested in the company's social activities, enhanced social performance will contribute to enhanced financial performance (Velte, 2017)

2.10.1. Social Responsibility inside the banking Industry

The articulation "social performance" is consistently used to imply an association's commitment to social commitment (CSR). The Refinitiv Eikon informational index has forty markers isolated into four groupings that interface with the social place of help score Workforce (Soc WF) offers information on security and prosperity appROAches, improvement and planning courses of action, comparable entryway, assortment, agent turnover, assortment, and versatile schedule. The social honors (Soc HRights) arrangement recall data for chance of alliance, kid work, Statistics on chance of get-together, and normal opportunities Knowledge on forceful market, pay off, corruption (concerning antagonistic to cash washed money), corporate organization (significantly addressed in the monetary business and upheld by rules conveyed by the European Banking Authority), social class responsibility, and neighborhood are associated with the neighborhood (COM) perspective. A thriving economy requires an acceptable monetary industry (Aras et al., 2018), so the money related go-between work has various CSR parts: receptiveness to capital (permission to money related organizations for greater region of the neighborhood), of non-official affiliations, moral financing, peril data and experience for clients, insightful e-portions, and financial data for everybody at large (Avrampou et al., 2019; Birindelli et al., 2015) Stakeholder theory can be associated with coperate social commitment and deduces: (I) not oppositely influencing accomplices' prosperity (i.e., monetary supporters, laborers, affiliations, clients, suppliers, the public power, and social orders); (ii) continuing "past consistence" on issues like corporate organization, getting models, reliable hypothesis open entryways, essential freedoms, generosity, and the execution of overall monetary values (Campbell, 2007; Freeman, 1994). Secure and fair relations among the leaders, and laborers will add to delegate client constancy, beginning from inside the firm (Birindelli et al., 2015). Laborers go probably as a framework for the spread of direction social commitment the chiefs in the association as well as in their enterprises with accessories and the general populace. Yet various business essentials are enlightened in the law, alternate points of view can be considered "past consistence" and in this manner fall inside corporate social obligation. Assortment, comparable entryways, dynamic work characteristics, prosperity, and security, planning, and calling progression are properties of these perspectives (Esteban-Sanchez et al., 2017; Perrini et al., 2011). Corporate constructions that are centered around CSR have both an evident (codes, guidelines, and rehearses) and a certain exemplification (the moral environment, and friends' profile). Strategies, rules, and techniques should be followed, though codes of conduct depend on standards. Worker commitment in CSR programs is altogether discretionary, and it prompts the development of a moral environment (Perrini et al., 2011). The immediate and roundabout impacts of cop erate social responsibility in the financial business are the immediate effect on the workers of bank, social orders, and clients; and the backhanded impact on businesspeople, organizations, and offices that become contributors (Scholtens, 2006). According to the resource-based view (Gangi et al., 2019), corporate social responsibilty can assist banks distinguish itself from rival companies and enhance the public's image of their operations, according to the resource-based view (Gangi et al., 2019). The direct and indirect effects of corporate social responsibilty in the banking industry are: the direct impact on the employees of bank, societies, and clients; and the indirect effect on entrepreneurs, companies, and agencies that become depositors (Scholtens, 2006). Corporate social responsibility can assist banks distinguish itself from rival companies and enhance the public's image of their operations, according to the resource-based view (Gangi et al., 2019). The banking industry depends on trust and ongoing investment opportunities to preserve a positive reputation (Jo et al., 2015). As a result, brand awareness causes investment instruments to stand out and enhances client loyalty (Shen et al., 2016).

Participation, cross-sector collaborations, and community engagement are all highlighted through CSR disclosure. Sustainability reporting is an important part of business transparency that aims to meet the expectations of stakeholders. In this approach, society offers a "permission to operate" that goes beyond rigorous adherence to the law (Perrini et al., 2011). The acknowledgment that moral conduct is genuinely vital, and that straightforwardness is a piece of moral conduct, prompts divulgence (Birindelli et al., 2015The "triple main concern" idea (Elkington, 2008), which is at the premise of the Global Reporting Initiative (2016) standards, is the most notable technique. CSR systems strikingly affect the market since they permit each bank to get an upper hand along with financial backer trust. As indicated by the asset-based point of view, organization notoriety is a theoretical resource valued by organizations, controllers, and society (Lourenço et al., 2014). Moral capital, which is gotten from business magnanimity, and local area commitment (Godfrey, 2005), is a similitude for notoriety. The "social obligation speculation" (Preston and O'Bannon, 1997) depends on instrumental partner hypothesis, and suggests that organizations with more corporate social responsibilty will have better monetary execution. Expanding effectiveness, item separation, and upper hand should come about because of satisfying the prerequisites and assumptions for some partners. Corporate social responsibilty - cognizant banks beat non-corporate social responsibilty banks in regard of productivity, as per information from worldwide banks across Eighteen locales (Shen et al., 2016). Moreover, an ascent in CSR is exceptionally connected with expansion in monetary execution (Wu and Shen, 2013). Since banks have changing CSR levels, levels of eagerness to partake in CSR exercises (Wu et al., 2017). These associations, notwithstanding, would not make a difference to all nations and overall sets of laws conditions. The CSR scores of banks in 34 nations, are connected with the execution of such Equator Principles in a positive manner.

However, they are irrelevant to current financial conditions. Smaller and less prosperous banks are likely to become less motivated to perform in CSR activities, although the CSR-financial correlation for big banks is yet unknown. We hypothesize, in accordance with stakeholder theory as well as resource-based thinking, that:

H2: There is a positive relationship between social pillar and financial performance of bank

2.11. Governance in the industry of banking

We'll have been through the theoretical points of two Refinitiv-analyzed dimensions: administration and supervision and shareholders' interests, both of which are part of the governance pillar. The governance and oversight score (Gov MN) includes information on boards (functions, policy, attendance, structure, size, independent members, non-executive and affiliations, investment period, context and skills, gender and cultural diversification), compensation (policy, sustainability incentives, improvement tool, shareholders' approval of stock compensation plans, independence, and compensation committee), and the nomination committee and its independence. The shareholder rights (Gov SH) aspect collects information on equal investor protection and proposed measures, as well as the percentage of people who can vote.

Leader pay, chief vote larger part rules, force of blackball or brilliant offers, government banks, against takeover gear, non-review to evaluated charges proportion, and examiner residency are generally available to investor vote. The social assessment models were considered with the CSR methodology aspect, which Refinitiv sees toward being essential for the administration support point. Contemplations overall. As indicated by the office theory, solid corporate administration techniques should coordinate directors' inclinations with that of financial backers (Grove et al., 2011). Besides, office hypothesis infers that maybe a bank's exhibition is attached to the inspirations of its chiefs, and top managerial staff (Harkin et al., 2020). Banks are public foundations with an elevated expectation of obligation to its partners, and any breakdown would adversely affect society (Leidner and Lenz, 2017; Zagorchev and Gao, 2015).

Controllers assume a critical part in forcing banks to foster protected and solid organization administration systems (John et al., 2016). Banks have unmistakable qualities, for example, high guideline and one-of-a-kind issues, which their administration frameworks should address (Andres and Vallelado, 2008; Becht et al., 2011). The instruments that financial backers utilize to ensure that administration acts to their greatest advantage are affected by the intricacy of the business and administrative climate (de Haan and Vlahu, 2016). The accompanying components are remembered for the Refinitiv data set and are respected significant for the production of an effective arrangement of administration. Dimensions of the board: The board of directors is one of the most important parts of the governance system (Andres and Vallelado, 2008). Members of the board should vote on strategic and current problems, with a focus on risk management, and executive oversight

According to Andres and Vallelado (2008), a board is huge if it has more above 19 members, the expenditures will exceed the advantages. This is consistent with Pathan and Faff's (2013) findings, which revealed that raising board size had a negative impact on bank performance. Larger boards have more complexity and take longer to make decisions (de Haan and Vlahu, 2016).

H3: There is a positive relationship between governance pillar and financial performance of bank

2.12. ESG and Financial Performance:

There's been so much research that numerous meta-analyses have combined the findings of over 1,000 research papers and found there's no proven correlation between ESG characteristics & financial performance: Although the majority of researchers found a favorable connection between ESG & financial performance, the existing literature revealed positive, negative, and no connections. However, researchers that discover a positive relationship between ESG and financial performance generally fail to explain the economic processes that lead to improved performance, as they primarily focus on historical data analysis

Shakil et al. (2019) investigate 93 banks that operate in emerging markets from 2015 to 2018. The authors discover that environmental & social performance has a positive impact on the financial performance (as evaluated by ROAand ROE), however, governance performance has no impact on financial profitability

Buallay, A. (2019) duplicates the research of Professor George Serafeim related to explores the relationship between the financial performance of bank operations such as ROA(return on asset) and ROE (return on equity) and market performance. This study inspected a total of 235 banks for 10 years (2007-2016). The finding demonstrates that there's a vital positive impact of ESG on financial performance.

Kotsantonls & Bufalari (2019) study the difference between material and immaterial issues on returns within the banking sector. A sample containing 100 international banks is evaluated for the period 2010-2017 using SASB to Bloomberg metrics mapping. The findings show that those companies with a high score in immaterial issues underperform and alternatively, the banks which show good performance on the material ESG issues perform better comparatively.

Bloomberg's (2019), sustainable finance industry grew by 78 percent in 2019, with a total of $465 billion in sustainable development debt instruments issued. Green bond issuance exceeded $250 billion for the first time, and sustainability-related loans exceeded $125 billion. The report includes information on business, environmental, and social concerns that directly impact the company, employees, and/or strategic partners, discovered these issues after conducting a materiality assessment in 2015.

Alareeni, B. A., & Hamdan, A. (2020) discover that ESG disclosure has a positive impact on a company's performance metrics. However, Environmental and corporate social responsibility (CSR) disclosure were shown to be negatively linked with ROAand ROE when ESG sub-components were measured separately. Tobin's Q is positively associated with EVN and CSR disclosure. Furthermore, corporate governance (CG) disclosure has a positive relationship with ROA and Tobin's Q, but a negative relationship with ROE.

As per the literature, sustainable conduct is forecast to expand demand and growth for businesses. These companies should recognize the ESG added value that reduces business risks. From the above literature, the relationship between ROE (return on equity) and material ESG in this research is hypotheses as follow

We start with the assumption that there is no relationship between optimal ESG activities and financial achievement in BRICS firms, based on the specialist literature discussed in the preceding sections. Because of the limitations of the local financial markets and the exchange between engaging in ESG and other (often more lucrative) operations, enterprises operating in these countries have limited financing options (Lopez Iturriaga and Cris ostomo, 2010). Along with economic factors, a country's organizational structure has an impact on the type and extent of ESG policy employed (Dobers and Halme, 2009).

Considering the organizational differences between emerging and established countries, it is reasonable to assume that, in contrast to just being lower, ESG performance in either has no substantial association to financial performance. Aras et al., 2010; Crisóstomo, Freire, & Vasconcellos, 2011) are two research that investigated at this connection in emerging countries. As a basis, we develop our initial hypothesis as follows:

H4: There is positive correlation between ESG performance and emerging market financial performance.

2.13. ESG and Banking Performance

Azmi, W., Hassan, M. K., Houston, R., & Karim, M. S. (2021) explore the connection between bank value and environmental, social, and governance (ESG) activity. Between 2011 and 2017, they studied 251 banks from 44 emerging markets. To account for endogeneity, they use System Generalized Method of Moments (GMM) estimate. The association between ESG activities and bank value is shown to be non-linear. according to our finding's Low levels of ESG engagement have a positive influence on bank value. on the other hand, there have decreasing returns against the scale. Activities that are good for the environment have the greatest impact on bank value. We investigate the mechanisms by which ESG activity affects bank value and discover a positive correlation between ESG activity and both cash flows and the effectiveness of banks. ESG activity has a negative impact on the cost of capital and seems to have no impact on the cost of debt. Our observations imply why both stakeholder theory & trade-off theory adherents have found proof to substantiate their expectations about the correlation between ESG activities and bank value.

Corporate governance is described as a firm code of conduct that ensures that the activities of its board of directors and executives are consistent with the interests of its stakeholders.

(Esteban-Sanchez and colleagues, 2017). Corporate governance has evolved beyond the use of laws and regulations to supervise the behavior of executives and board members (Aboud and others).

2018; Diab, Business ethics, disclosure, and accountability are all part of corporate governance (Aboud and Diab, 2018; Lerach, 2002). Companies have established several codes of conduct for financial and non-financial disclosure in recent years, and they have disclosed more information. Banks' financial success may be influenced by strong corporate governance. According to previous research, companies with effective governance are more profitable (Esteban-Sanchez et al., 2017; Jamali, 2008; Velte, 2017). The agency theory can evaluate corporate governance and bank performance (Kochhar, 1996; Ross, 1973). According to the agency theory, senior managers reveal more firm activity to illustrate their concern for stakeholders (Watson et al., 2002). Companies with effective corporate governance may be able to decrease stakeholder and management conflict (Ntim et al., 2013). Poor governance standards lead to more agency disputes and decreased profitability.

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Considering the organizational differences between emerging and established countries, it is reasonable to assume that, in contrast to just being lower, ESG performance in either has no substantial association to financial performance. Aras et al., 2010; Crisóstomo, Freire, & Vasconcellos, 2011) are two research that investigated at this connection in emerging countries. As a basis, we develop our initial hypothesis as follows:

Chapter # 3: Research Methodology

3.1. Research Philosophy

According to Kuhn (1962), research is guided by a scientific paradigm, and research approach, during which methodology standards are defined. Because the research philosophy determines how data is acquired, processed, and used. Hence what is considered necessary for analysis. It is critical for researchers to choose a research philosophy (Holm, 2018).

This research collected the date from Refinitiv (also known as Refinitiv Eikon, which is managed by Thomson Reuters). We selected Refinitiv because it is a well-known global database that has one of the comprehensive ESG datasets, which includes more than 450 distinct ESG measures with past data. This database is extensively utilized by scholars, and its main site provides a clear and transparent approach collecting ESG data. As stated in Refinitiv's publications beginning in April 2020, there are various ways of accomplishing this aim, including 400 constructed error tests integrated in the data collection instrument; 300 robotic quality check scanners, component of a post-production process; unbiased audits such as everyday samples and weekly disclosing; and visualization tool analysis with best issues of interest and activities, aspect of the review meetings.

Prior research that utilized the Refinitiv data set (previously Thomson Reuters) regardless of whether focused on the financial business (Esteban-Sanchez et al., 2017; Gangi et al., 2019; Miralles-Quiros et al., 2019; Shakil et al., 2019) or blended the banking, and non-banking areas (Chollet and Sandwidi, 2018)

3.2. Population

All public listed banks in Brics are included in this study's population. The population comprises public listed banks of BRICS countries.

3.3. Sample

The sample size of the commercial banks we examine comprises 161 listed banks to obtain a robust and big data collection that is free of statistical mistakes.

3.3.1. Sample Techniques

Since the 1980s, scholars have disputed the use of market-based & accounting-based measurements as indicators of financial performance (Gentry and Shen, 2010).

This research will utilize accounting metrics in financial performance assessments to capture both the past and possible future performance of the organizations. Prior studies such as Simpson and Kohers (2002), Mishra and Suar (2010), and Jang et al. have updated and extended these models (2013).

ROE and ROAwas chosen as the accounting-based measurement in this research since it is one of the more prominent ways for evaluating financial performance (Griffin and Mahon, 1997) and the second most influential indication for investors to assess a firm's management performance (Scott, 2003). It calculates a company's net income as a percentage of its shareholders' equity.

ROE = (Net income /Total shareholder Equity) *100

ROA= (Net income/ Total assets) * 100

3.4. Data Collection

The data is collected from Thomas Reuters between 2016 and 2020 the availability of the data to get the most accurate results.

3.5. Unit of Analysis

Here the unit of analysis is ESG in the context of bank financial performance of BRICS countries. The unit of analysis is 170 observation in this research

3.6. Data Analysis Techniques

This study uses panel regression to determine the hypotheses. The regression models instrument used in the study were adapted and adjusted from Jang et al. (2013) and Saleh et al. (2013) studies (2011). The panel data is used of BRICS countries banks from Thomas Reuters between 2016 and 2020

3.7. Statistical methods, and Econometric models

The variables utilize in this study are introduces in Table 2 list. The explanations reflect the definitions for bank-specific measures supplied by the European Banking Regulation in the methodology guideline released in March 2019 as a draft report. As of October 2020, the elements of ESG scores as well as the gross domestic product (GDP) are consistent with statistics results from the official sites of Refinitiv, and also the World Bank.

Table: Defining the Variables

Variable	Abbreviation	Explanation
Return on Asset	ROA	The profitability of total assets is calculated by dividing net income, minus taxes by total assets.
Return on Equity	ROE	Illustrates the effectiveness of the invested equity from the accounting point of view and is computed as net income after taxes divided with total equity.
Environmental	Environ	Represents the relative total of category weights for environmental categories such as resource consumption, emissions and waste reduction, and innovation, which vary by industry.
Social	Social	Describes the relative total of categorization weights for social responsibility subcategories like community, workforce, product responsibility, and human rights, which vary by industry.
Corporate Governance	Governance	Indicates the relative sum of classification weights for governance groups such as shareholders, management and cooperate social responsibility that are consistent across industry sectors.

The proposed econometric models for examining the connection between ESG Pillars, and financial performance are in line with the literature originally discussed (Buallay et al., 2020b; Chang and Devine, 2019; Esteban-Sanchez et al., 2017; Peni and V€ah€amaa, 2012; Shakil et al., 2019)

3.8 Equations

ROA= $\beta_0 + \beta_1$ ESG + β_2 Size+ β_3 GDP + Ei (Equation 1)

ROA= $\beta_0 + \beta_1$ Environmental Pillar + β_2 Size+ β_3 GDP + Ei (Equation 2)

ROA= $\beta_0 + \beta_1$ Social Pillar + β_2 Size+ β_3 GDP + Ei (Equation 3)

ROA= $\beta_0 + \beta_1$ Governance Pillar + β_2 Size+ β_3 GDP + Ei (Equation 4)

ROE= $\beta_0 + \beta_1$ ESG + β_2 Size+ β_3 GDP + Ei (Equation 5)

ROE= $\beta_0 + \beta_1$ Environmental Pillar + β_2 Size+ β_3 GDP + Ei (Equation 6)

ROE= $\beta_0 + \beta_1$ Social Pillar + β_2 Size+ β_3 GDP + Ei (Equation 7)

ROE= $\beta_0 + \beta_1$ Governance Pillar + β_2 Size+ β_3 GDP + Ei (Equation 8)

Chapter # 4: Results

4.1 Descriptive Analysis

Descriptive Analysis is the type of analysis of data that helps describe, show or summarize data points in a constructive way such that patterns might emerge that fulfill every condition of the data. The data here is normalize back to get accurate descriptive analysis. The descriptive statics for all explanatory variables are shown in Table 3. The ROA mean, standard deviation, minimum and maximum are 1.121358, 1.291621, -6.36 and 5.7129. The ROE means, standard deviation, minimum and maximum are 10.92497, 9.773234, -75.56, and 26.5098. The Environmental pillar means, standard deviation, minimum and maximum are 48.63623, 24.76607, 4.53, and 96.67. The social pillar means, standard deviation, minimum and maximum are 61.06583 18.49567, 21.96, and 96.44. The ESG means, standard deviation, minimum and maximum 55.98937, 16.48508, 17.69, and 93.74.

4.1.1 Table 1: Descriptive Analysis

Variable	Obs	Mean	Std. Dev.	Min	Max
ROA	175	1.121358	1.291621	-6.36	5.7129
ROE	175	10.92497	9.773234	-75.56	26.5098
Size	175	11.87955	1.090859	9.363883	15.1013
Env	175	48.63623	24.76607	4.53	96.67
Gov	175	51.98749	22.28376	7.25	95.81
Soc	175	61.06583	18.49567	21.96	96.44
ESG	175	55.98937	16.48508	17.69	93.74
GDP	175	3.291241	4.353008	-7.251755	8.256306

4.2: Correlation

Correlation is a statistical word that refers to degree to which two variables move in coordination with one another. When two variables move in the same direction, it is said that they have a positive correlation. A negative correlation exists when they move in opposite directions. The possible range of values for the correlation coefficient is -1.0 to 1.0. In other words, the values cannot exceed 1.0 or be less than -1.0. A correlation of -1.0 indicates a perfect negative correlation, and a correlation of 1.0 indicates a perfect positive correlation. The correlation is checked between independent variables such as environmental pillar, social pillar, governance pillar and ESG with one another separately.

4.2.1 Table 2: Correlation

	ROA	ROE	Size	Env	Gov	Soc	ESG	GDP
ROA	1.0000							
ROE	0.7522	1.0000						
Size	0.1075	0.2534	1.0000					
Env	-0.1499	-0.0584	0.1095	1.0000				
Gov	-0.0240	-0.0092	-0.1275	0.3561	1.0000			
Soc	0.0299	-0.0161	0.0718	0.7646	0.2764	1.0000		
ESG	-0.0276	-0.0265	0.0169	0.8130	0.7171	0.8556	1.0000	
GDP	0.0164	0.1620	-0.1392	-0.4657	-0.0183	-0.4725	-0.3714	1.0000

4.3. Regression Analysis

The return on assets (ROA) is a profitability ratio that shows how much profit a firm may make from its assets whereas the return on equity (ROE) is a measure of a company's profitability in relation to its equity. ESG score used as an explained variable in equations

(1) and (5) and log of total assets and size as controls in table 3, result in a positive coefficient with ROA and ROE (measures of financial performance), and the co-efficient is 0.015 between ESG scores and ROA, the co-efficient is 0.017 between ESG scores and ROE, with $p<0.01$. ROA and ROE moves in same direction with ESG. Similarly, the individual aspect of Environmental, social and governance pillar shows the positive correlation on financial performance with $P< 0.01$ with ROA and ROE, except the governance pillar have P value less than 0.05 with ROE. This shows significant positive effect on financial performance. As R square is 0.935 in ROA shows the 93.5% variation in dependent variable by the independent variables, and 0.644 with ROE shows better fit model of linear regression. Garcia and Orsato (2020) founded same positive relationship between ESG and financial performance.

4.3.1 Table 3: Stata Analysis

Variables	(1) est1 ROA	(2) est2 ROA
ESG	0.015***	
	(0.002)	
Env		0.003***
		(0.001)
Soc		0.006***
		(0.002)
Gov		0.005***
		(0.001)
Size	-0.298*	-0.323*
	(0.172)	(0.176)
GDP	0.007	0.007
	(0.005)	(0.005)
Constant	3.649*	3.979*
	(2.101)	(2.152)
Observations	170	170
R-squared	0.935	0.935

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Variables	(1) est1 ROE	(2) est2 ROE
ESG	0.017***	
	(0.007)	
Env		0.003
		(0.004)
Soc		0.007
		(0.006)
Gov		0.007**
		(0.003)
Size	-0.350	-0.361
	(0.570)	(0.584)
GDP	0.018	0.018
	(0.017)	(0.017)
Constant	5.635	5.828
	(6.952)	(7.147)
Observations	170	170
R-squared	0.644	0.645

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Chapter # 5: Conclusion and Recommendations

According to evidence, Chong et al. (2018), ESG practices improve firms' performance and has no effect on firms' risk taking and Garcia and Orsato (2020) founded same positive relationship between ESG and financial performance. Our study also founded the positive relationship between ESG and Financial performance. Few studies have examined at the distinct effect of ESG characteristics on a variety of accounting- based performance measures. Our research contributed to the existing of research by focusing on the correlation between ESG factors, and bank financial performance from Thomas Reuters in between 2016 to 2020. We use eight econometric models that leverage ESG dimensions for determinants of bank performance, as well as two control variables that are either country or bank specific. We discover strong positive correlations between ESG scores and return on assets (ROA), as well as environmental, social and governance pillar and return on asset (ROA). According to our data, there are positive significant correlations between any of the dependent variables and the other predictors.

5.1 Limitation of Study:

There are a few limitations to this research. To begin with, the sample consists of only 170 observations, which could be called a tiny sample. The Refinitiv database, on the other hand, only has whole, uninterrupted data for these BRICS banks for at least five years. A sample of all BRICS banks would not have satisfied our qualitative criteria, causing the results to be distorted. The impact of the Coronavirus crisis on the banking industry, as well as measures to reform employee values and rules, could be the topic of future research. Researchers can focus on the problems, banks have when it comes to rethinking their business model, procedures, and key success measures in the area of environmental, social, and governance (ESG).

5.12: Recommendation

Futures studies can explore the effect of firm's industry average, consumer's acceptance or trust and types of ESG disclosures and its effect on firm financial performance. Secondly, the data collection period of this study has very limited disclosures by most firms so we were unable to collect other components of ESG disclosures. Future studies should focus on the three different pillars of ESG with different methods to understand their effects on financial performance and how competitive advantage can affect this relationship.

Bibliography

Azmi, W., Hassan, M. K., Houston, R., & Karim, M. S. (2021). ESG activities and Banking Performance: International Evidence from Emerging Economies. *Journal of International Financial Markets, Institutions and Money*, *70*, 101277.

Aggarwal, P. (2013). Sustainability reporting and its impact on corporate financial performance: A literature review. *Indian Journal of Commerce and Management Studies, 4(3),* 51.

Al-Najjar, B., & Anfimiadou, A. (2012). Environmental policies and firm value. *Business Strategy and the Environment,* 21(1), 49-59.

Albertini, E., (2013). Does environmental management improve financial performance? *A meta-analytical review. Organ. Environ*. 26, 431-457.

Andres, P. de, Vallelado, E., (2008). Corporate governance in banking: the role of the board of directors. *J. Bank. Finance* 32, 2570-2580.

Aras, G., Tezcan, N., Kutlu Furtuna, O., (2018). The value relevance of banking sector multidimensional corporate sustainability performance. Corp. Soc. *Responsib. Environ. Manag.* 25, 1062-1073.

Avrampou, A., Skouloudis, A., Iliopoulos, G., Khan, N., (2019). Advancing the sustainable development goals: *evidence from leading European banks. Sustain. Dev.* 27, 743-757.

Bauer, R., Guenster, N., & Otten, R. (2004). Empirical evidence on corporate governance in Europe: The effect on stock returns, firm value and performance. *Journal of Asset management*, 5(2), 91-104.

Bouslah, K., L. Kryzanowski, and B. M'Zali. (2018). Social performance and firm risk: The impact of the financial crisis. *Journal of Business Ethics*, 49, 643–669.

Clarkson, P. M., Li, Y., Richardson, G. D., & Vasvari, F. P. (2008). Revisiting the relation between environmental performance and environmental disclosure: *An empirical analysis. Accounting, organizations and society*, 33(4-5), 303-327.

Crisóstomo, V. L., de Souza Freire, F., & De Vasconcellos, F. C. (2011). Corporate social responsibility, firm value and financial performance in Brazil. *Social Responsibility Journal*. 134, 445-461

Diez-Vial, I., and Montoro-Sanchez, A. (2017). Research evolution in science parks and incubators: *Foundations and new trends. Scient metrics*, 110(3), 1243–1272.

de la Cuesta-Gonz_alez, M., Mu~noz-Torres, M.J., Fern_andez-Izquierdo, M._A., (2006). Analysis of social performance in the Spanish financial industry through public data. *A proposal. J. Bus. Ethics* 69, 289-304

Depoers, F., Jeanjean, T., J_er^ome, T., (2016). Voluntary disclosure of greenhouse gas emissions: *contrasting the Carbon Disclosure Project and corporate reports*. J. Bus. Ethics 134, 445-461

Dixon-Fowler, H.R., Slater, D.J., Johnson, J.L., Ellstrand, A.E., Romi, A.M., (2013). Beyond “Does it pay to be green?” *A meta-analysis of moderators of the CEP-CFP relationship. J. Bus. Ethic*s 112, 353-366.

Dixon, R., Coulson, A.B., (1995). Environmental risk and management strategy: *the implications for financial institutions. Int. J. Bank Market.* 13, 22-29.

Erkens, D.H., Hung, M., Matos, P., (2012). Corporate governance in the 2007-2008 *financial crisis: evidence from financial institutions worldwide. J. Corp. Finance* 18, 389-411

Esteban-Sanchez, P., de la Cuesta-Gonz_alez, M., Paredes-Gazquez, J.D., (2017). Corporate social performance and its relation with corporate financial performance*: international evidence in the banking industry. J. Clean. Prod*. 162, 1102-1110.

Eccles, R. G., Ioannou, I., & Serafeim, G. (2014). The impact of corporate sustainability on organizational processes and performance. Management Science, 60(11), 2835-2857.

Fisher-Vanden, K., & Thorburn, K. S. (2011). Voluntary corporate environmental initiatives and shareholder wealth. Journal of Environmental Economics and management, 62(3), 430-445.

Friede, G., Busch, T., Bassen, A. (2015). ESG and financial performance: *aggregated evidence from more than 2000 empirical studies. J. Sustain. Finance Invest.* 5 (4), 210-233.

Godos-Díez, J.L., Cabeza-García, L., Alonso-Martínez, D., Fern_andez-Gago, R., 2018. *Factors influencing board of directors' decision-making process as determinant of CSR engagement*. Rev. Manag. Sci. 12, 229-253.

Goss, A., Roberts, G.S. (2011). The impact of corporate social responsibility on the cost of bank loans*. J. Bank.* Finance 35, 1794-1810.

García-Meca, E., García-S_anchez, I.M., Martínez-Ferrero, J. (2015). Board diversity and its effects on bank performance: an international analysis. J. Bank. Finance 53, 202-214.

Godfrey, P. C., Merrill, C. B., & Hansen, J. M. (2009). The relationship between corporate social responsibility and shareholder value: *An empirical test of the risk management hypothesis. Strategic management journal,* 30(4), 425-445.

García-Meca, E., García-S_anchez, I.M., Martínez-Ferrero, J., (2015). Board diversity and its effects on bank performance: *an international analysis. J. Bank. Finance* 53, 202-214.

Gong, G., Xu, S., and Gong, X. (2018). On the Value of Corporate Social Responsibility Disclosure*: An Empirical Investigation of Corporate Bond Issues in China. Journal of Business Ethics.* 150, 227–258

Kim, J., Chung, S., & Park, C. (2013). Corporate social responsibility and financial performance: *the impact of the MSCI ESG ratings on Korean firms. Journal of the Korea Academia-Industrial Cooperation Society,* 14(11), 5586-5593.

Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). Corporate social and financial performance: A meta-analysis. Organization studies, 24(3), 403-441.

Schwartz, M. S. (2003). The" ethics" of ethical investing. J*ournal of business ethics,* 43(3), 195-213.

Orsato, R.J., Garcia, A.S., Mendes-Da-Silva, W., Simonetti, R., Monzoni, M., (2015). Sustainability indexes: why join in? *A study of the 'Corporate Sustainability Index (ISE)' in Brazil. J. Clean. Prod.* 96 (1), 161-170.

O'Neill, J. (2021). Is the Emerging World Still Emerging? *Two decades on, the BRICs promise lingers. IMF Finance & Development,* 24(3), 403-441.