DETERMINANTS OF QUALITY SUSTAINABILITY REPORTING PRACTICES IN THE FINANCIAL SERVICES SECTOR: EVIDENCE FROM G7 COUNTRIES

A thesis submitted in Partial Fulfilment of the Requirement for the Doctor of Philosophy

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ABSTRACT

The financial services sector has been seen as an alien to sustainability reporting due to the nature of the services the sector provides. However, in recent years, there are increasing pressure on the financial services sector to include environmental and social disclosures in their reporting, as sustainability report becomes an effective tool to evaluate and communicate economic, environmental, and social performance to stakeholders and to gain corporate social legitimacy and permanency in the market. Some scholars and professionals argue that despite the importance of sustainability reporting, the emphasis is not placed on quality but on quantity, hence, several sustainability reports have failed to meet the needs of stakeholders. This research focuses on identifying the corporate attributes that drive quality sustainability reporting practices in the financial services sector. The attributes are financial leverage, board composition, audit committee, ownership structure, firm age, corporate visibility, and listing status. While profitability and firm size are used as control variables.

The research hypotheses are developed and tested using a random effects robust regression model with recourse to some notable theories as the basis for the theoretical framework. These include legitimacy, institutional, stakeholder, and agency theories. The study employs a quantitative approach and data were manually collected from annual and standalone reports by using the content analysis technique to develop a quality sustainability reporting index. The sample is drawn from the financial services companies of group 7 countries (G7) listed in the database of Global Reporting Initiative (GRI) sustainability disclosure from 2014 to 2018 with 81 firms and 220 observations. Stata statistical software is used to execute the regression and to analyse the data collected.

The empirical findings have practical and theoretical implications for significant stakeholders in improving the determinants of quality sustainability reporting practices. Financial leverage, audit committee, and listing status are positively associated with quality sustainability reporting practices as diverse regulators and stakeholders demand more disclosures of information. Also, the study underscores the use of the industry-specific framework to appraise quality sustainability reporting, which stands to be an advantage over the general framework. This should be a drive for the reporting framework providers and the regulating authorities. The key policy recommendation is

to ensure that the reporting practice becomes mandatory among the public listed companies.

Keywords

Sustainability Reporting (SR); Quality Sustainability Reporting Index (QSRI); Corporate Social Responsibility (CSR) Global Reporting Initiatives (GRI); Group Seven Nations (G7)

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Joseph Olawale Oluwadebi
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LIST OF ABBREVIATIONS

AR	Abnormal Returns
AIMR	Association for Investment Management and Research
BC	Board Composition
CA/TA	Current Assets divided by Total Assets
CAT	Critical Accounting Theory
CBSD	Centre for Business and Sustainable Development
CEO	Chief Executive Officer
CEP	Council on Economic Priorities
CERES	Coalition for Environmental Responsible Economies
CF	Cash Flow
CEP	Council on Economic Priorities
CFP	Corporate Financial Performance
CG	Corporate Governance
COP	Conference of Parties
CRSP	Centre for Research in Security Prices
CSP	Corporate Social Performance
CSR	Corporate Social Responsibility
CSRD	Corporate Social Responsibility Disclosure
EP	Equator Principles
EPFI	Equator Principles Financial Institutions
EPS	Earnings Per Share
ERM	Environmental Resources Management
ESG	Environmental, Social and Governance
EU	European Union
FA	Financial Analysts
FAF	Financial Analysts Federation
FASB	Financial Accounting Standards Board
FTSE	Financial Times Stock Exchange
FSS	Financial Services Sector
GAAP	Generally Accepted Accounting Principle
GDP	Gross Domestic Product
GHG	Greenhouse Gases

GRI	Global Reporting Initiative
G7	Group of Seven Nations
HR	Human Rights
IAS	International Accounting Standards
IASB	International Accounting Standard Board
IBES	Institutional Brokers Estimate System
IEA	International Energy Agency
IFC	International Finance Corporation
IFRS	International Financial Reporting Standards
IIRC	International Integrated Reporting Council
IPCC	International Panel on Climate Change
ISO	International Organization for Standardization
ISSB	International Sustainability Standards Board
LPDW	Labour Practices and Decent Work
LSTATUS	Listing Status
MCAP	Market Capitalization
MD&A	Management Discussion and Analysis
NFR	Non-Financial Reporting
NGO	Non-Government Organization
NHITS	News Hits
NINEBD	Number of Independent and Non-Executive Board Directors
NLMCAP	Natural Log of Market Capitalization
NLNH	Natural Log of News Hits
NLNOE	Natural Log of Number of Employees
NLTA	Natural Log of Total Assets
NOE	Number for Employees
OECD	Organization for Economic Co-operation and Development
OLS	Ordinary Least Squares
PIEs	Public-Interest Entities
PM	Profit Margin
PWC	Price Waterhouse Coopers
QSRI	Quality Sustainability-Reporting Index
R&D	Research and Development

ROA	Returns on Assets
ROE	Returns on Equity
ROS	Returns on Sales
ROI	Returns on Investments
SD	Sustainability Disclosure
SDSN	Sustainable Development Solutions Network
SR	Sustainability Reporting
SEC	Securities and Exchange Commission
SESAR	Social, Environmental and Sustainability Accounting and Reporting
SFAC	Statement of Financial Accounting Concepts
SIF	Social Investment Forum
SRI	Socially Responsible Investment
TASSET	Total Assets
TBL	Triple Bottom Line
TSQSR	Total Scores of Quality Sustainability Reporting
UN	United Nations
USA	United States of America
WCS	World Conservation Strategy
UNFCCC	United Nations Framework Convention on Climate Change
UNEP	United Nations Environment Programme

Chapter One

Introduction

CHAPTER ONE
INTRODUCTION

The growing attention for non-financial information such as sustainability disclosures to be incorporated in companies' annual reports and standalone sustainability reports for companies to demonstrating their impacts to environmental and social issues has been on increased among the stakeholders. According to Isaksson and Steimle (2009), sustainability reporting has become a channel whereby firms communicate their social and environmental performances with the stakeholders. It is difficult for business to exist and operate without having any form of collaboration with its environment and the society where it operates. Hence, disclosure of information on economic, environmental, and social impacts offer additional value and useful information to the firm and its stakeholders (Garg, 2015). The capital markets lately also have orchestrated the demand for sustainability information especially from the sustainable investors that appraise financial and non-financial information for them to make an investment decision (Markus Arnold, Bassen, & Frank, 2012).

Sustainability reporting is referred to as the practice of an organization to evaluate, disclose, and be held responsible to internal and external stakeholders for the performance towards the sustainable development goals (GRI, 2018b). It is a voluntary report practice that explains the inclusion of environmental and social issues in business operations and also in the engagement with the stakeholders (Van Marrewijk & Werre, 2003). The idea of sustainability reporting is apparently like other concepts that explain the impacts of information on economic, environmental, and social disclosures. Such other concepts are Corporate Social Responsibility (CSR) and Triple Bottom Line (TBL) reporting. According to McWilliams and Siegel (2001), CSR may be defined as the firm's actions, which seem to enhance the promotion social good beyond legal requirements and also beyond the immediate interest of the firm and its shareholders. However, appraising the quality of reporting has added a further dimension to sustainability reporting which shows that, it is not enough to report but the quality of the information are more advantageous to the stakeholders (Hooks & van Staden, 2011). The growing emphasis that sustenance is the necessity of the present hour because of the rapid depletion of invaluable resources, the rising scarcity of resources, which are pointers that the future generation might be impacted negatively (Bhatia & Tuli, 2017).

1.1 Background of study

Over a long period of time, sustainability policies have been established and cut across global level to the local scale of governance. During the United Nations International Development Strategy in 1970, and the 1972 UN Conference on the Human Environment in Stockholm, the notion of relating economic, environmental and social issues emerged (Howes et al., 2017). The term 'sustainable development' was introduced during World Conservation Strategy in 1980 (IUCN, 1980). The Brundtland report of 1987 on Environment and Development titled "our common future" which formed part of the agenda for discussion at the 1987 General Assembly of the United Nations and became a vital step to raise enlightenment on sustainability development(Hussey, Kirsop, & Meissen, 2001). The Brundtland report defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment Development, 1987, p. 9). Consequently, since the release of Our Common Future, every United Nations convention on environmental including the world's first Earth Summit in Rio de Janeiro 1992 and the Earth Summit in Johannesburg 2002, has made sustainable development to be a vital aspect of environmental policy (Hussey et al., 2001). Bebbington and Larrinaga (2014) argue that ''adopting the term 'sustainable development', the [Brundtland] Commission argued that problems of human development (poverty, inequity, basic human needs) could not be separated from, indeed were causally connected with environmental problems of resource depletion, biodiversity, pollution, and life support systems . . . [and that] the explicit linkage of the population and development 'problem' in developing countries with the 'consumption' problem in industrialized countries meant that Sustainable Development was inherently a global concept.'' (Bebbington & Larrinaga, 2014, p. 398). Consequently, sustainable development cannot be a systematic concept but remains as a disputed term in a basically political discourse about the human behaviour and activities (S. Cohen, Demeritt, Robinson, & Rothman, 1998).

The report also emphasises the importance of government and firms in considering the effects of their making decisions and policy formulation on the economy, environment, and society at large. The report, therefore, made undisputed call for nations to give room for relevant changes to have a common objective of achieving sustainable

development. Laine (2005) argues that the elusiveness of the Brundtland Report definition has aided the concept of sustainability to earn a leading status in the discussion of environmental and social issues globally, since it has been made possible to customize the definition of the concept. Bebbington and Larrinaga (2014) claim that the wide nature of the Brundtland Report definition of sustainable development has allowed a united broad coalition under its rhetoric while the application impact in certain situations remain disputed.

There have been positive responses to the call for sustainable development by many companies worldwide in voluntarily disclosure of their economic, environmental, and social information that impacted on their operations (Betianu, 2010). The concerns for sustainability as a result of the wakeup call have become extremely relevant to society (Burritt & Schaltegger, 2010) and, becoming integral part of the management decisions, accounting and reporting practices in both corporations and public sectors (Cebrián, Grace, & Humphris, 2013; Herzig & Schaltegger, 2011; Windolph, Schaltegger, & Herzig, 2014). Organizations and companies prepare conventional annual reports to stakeholders to show more of their financial performance, however, the annual reports do not reveal the effect of the business operations on the environment. The conventional annual reporting has been faulted over the past period for failing to represent the multiple scopes of a corporation's value (Simnett, Vanstraelen, & Chua, 2009). The ever-growing demand for non-financial disclosures couple with the increase in global ecological awareness and the drives for the attainment of sustainable development goals are setting agenda for corporations to make their business operations sustainable and ecological sensitivity.

Furthermore, the global financial crisis of 2008 has made financial institutions to be in the frontline of criticism in which their activities are brought under tight scrutiny by various stakeholders ranging from the regulators within and outside the country where the institution domiciled (Giannarakis & Theotokas, 2011). Banks especially were brought into front line owing to their direct participation with the global financial crisis of 2008, which led to the protests tagged "occupy" on Wall Street of New York, USA and other financial locations around the globe, which show that societies and communities are getting concerned about the business conduct in the financial sector and that sustainability is becoming a key issue in the industry (Bouvain, Baumann, &

Lundmark, 2013). Financial institutions are considered to be the heart of the modern markets as they pump financial resources like lifeblood, which enable economic growth, innovation, and prosperity through the system (Nizam, Ng, Dewandaru, Nagayev, & Nkoba, 2019). In view of these, the stakeholders' anticipations are very high; as per roles they want the institutions to play, especially in rendering support to the indigenous and transnational developmental goals that will benefit the society by adding value to their present and future existence. Simnett et al. (2009) observe that the above discussions have brought about the awareness of sustainability reporting, which is also linked to the earlier concepts like human resource accounting and social audit in the 1970s, the environmental and triple bottom line reporting in the 1990s, and corporate social responsibility reporting. Sustainability reporting has become extremely vital to both developed and the emerging economies with the ever-growing concern for the conservation of the ecosystem and to have a better and more sustainable future for everyone.

1.2 Problem and Motivation

The global climate change has put a strong pressure and demand on companies to consider the issue of sustainability reporting as very crucial and incorporate it as part of their strategy and management in order to demonstrate the level of their commitments even though, the report still remains voluntary in many part of the world (D'Aquila, 2018). The world leaders are coming together to sign different accords that will alleviate the impact of climate change and notable among them is Paris Agreement 2015 (UNFCCC, 2015). It was acknowledged in this accord that "climate change is a common concern of humankind, parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity" (UNFCCC, 2015, pp., p. 2). Furthermore, it is expected that a periodic report should be made on these sustainability issues as a way of measuring the compliance. According to Corden and Neary (1982) industrialisation leads to economic growth of a country, therefore, it is expected that the different companies that foster the economy growth and stability of a country should make sustainability report

a practice to justify the level of their compliance to social and environmental issues. Pan (2016b) observes that with the fast-economic development the world is experiencing today, social issues and environmental issues (with respect to global warming and declining in non-replenishable resources) have made companies to increase their efforts in reducing environmental risks and undertaking more of sustainability issues while maintaining profitability.

Financial services institution play a very crucial role in the nation economic growth as they create access to capital and investment opportunities for private individuals and corporations (Arestis & Demetriades, 1997). Financial institutions are seen to widely connected to all the stakeholders than any other business organizations (McGuire, Sundgren, & Schneeweis, 1988). Therefore, sustainability reporting practices by financial service institutions will depict that they demonstrate transparency and ethical behaviour which are very crucial norms in doing business (Turley-McIntyre, Marchl, & Stasuik, 2016). While underscoring the exigency and criticality of financial service sector to facilitating sustainable growth across all sectors of the economy, the vast majority of the firms in the sector have not yet addressed sustainability as a very strategic issue (Pan, 2016b). There is a growing trend in social and community expectation that companies located around them should help in promoting quality of life, preserve the environment, and foster overall social well-being, which in return help organization to achieve the required social acceptance by complying to moral legitimacy (M. A. Islam, Jain, & Thomson, 2016). Hence, sustainability reporting in financial sector is an access for any company to communicate its responsible profile and activities to clients and the people in the society and able to use the means to reach out to potential investors.

Although the idea and significance of sustainability reporting is gaining relevance among practitioners and academics lately, but its practice among organisations and corporations is still below expectations. Most of the studies centred on the quantity of sustainability reporting with little regard to its related quality as deterioration may have set in as diverse firms are reporting adequate comprehensive information in terms of quantity and not quality (Brammer & Pavelin, 2006; Farneti & Guthrie, 2009; Roca & Searcy, 2012; Rupley, Brown, & Marshall, 2012).

Thus, it is imperative that the future research assess and improve the quality of sustainability reporting practice. Today, this quality level, which becomes the motivating factor for this research must become a focal point for benchmarking and further research studies.

In the light of the above, the study identifying and evaluating firm's characteristics that influence the quality sustainability reporting practices in financial service services sector of the G7 countries, which prepare their sustainability reports in accordance with the Global Reporting Initiative guidelines. This study is adding value to the previous studies on drivers for quality sustainability reporting practices by addressing the sustainability reporting practices in financial services sector of G7 countries.

1.3 Research Questions

The key research question of this study is to establish how company characteristics can spur the management's drive to addict to sustainability reporting despite the practice being voluntary and not mandatory. To give an appropriate answer to this key question of the study, the following questions can therefore be addressed, which originated from the main research question:

i. How can quality be appraised in sustainability reporting?
ii. What are the determining factors of quality sustainability reporting practices in financial services sector of the group of developed nations (G7)?
iii. Does sustainability reporting themes and industry-specific frameworks encourage financial service institutions for more disclosure?

1.4 Research Aim and Objective

The aim of this study is to explore the drivers of quality sustainability reporting practices. In doing so, the study identifies firm-level characteristics that inform quality sustainability reporting practices in financial services sector of the group of developed nations (G7).

The research investigates the following objectives to achieve its aim:

(1) To develop a scoring index for quality sustainability reporting

(2) To test the effect of financial leverage, board composition, auditing committee, ownership structure, firm age, corporate visibility, listing status, profitability, and firm size on quality sustainability reporting practices

(3) To test the impact of company characteristics on sustainability theme disclosures

1.5 Justification for the study

According to Pan (2016b), research on sustainability is largely constricted to manufacturing sector which resulted to derisory attention on the services sector, most especially financial services and it looks as if sustainability is a word that is rarely linked with financial services. Despite the critical role the financial sector occupies in supporting sustainable growth throughout all the other sectors of the economy, yet the issue of making sustainability, as strategic remains elusive. As the concern for climate change and significance of sustainability issues continue to increase globally, the importance of sustainability reporting is also increasing as well.

D'Aquila (2018), state that the corporations are moving gradually in the right direction on sustainability reporting, but more work still need to be done to improve in the quality. Hence, this kind of report becomes the channel mainly for detailed evaluation of the sustainable performance of a company. But, regardless of this importance, there remains a substantial muddle about the level of the poor quality in the preparation of sustainability reports by companies. Accordingly, this study seeks to provide more insights and likely solutions towards this crucial problem by developing a quality sustainability reporting index for the attributes that could lead to a better way of reporting. Previous researchers have claimed that although, there is a commensurate growth in the number of sustainability reports, but quality of the reports remains poor and misleading, hence, the importance of quality reporting above quantity cannot be overemphasized (Abd El-Rahman, 2020; Abdelrahman, 2018; Comyns, Figge, Hahn, & Barkemeyer, 2013; Hooks & van Staden, 2011).

Also, studies from previous researchers have majorly focused on countries, continents, and developing nations (Bachoo, Tan, & Wilson, 2013; Cormier, Magnan, & Van Velthoven, 2005; Cornett, Erhemjamts, & Tehranian, 2014; De Villiers & Van Staden, 2006; Kuzey & Uyar, 2017; Purushothaman, Tower, Hancock, & Taplin, 2000;

Raffournier, 1995; Reverte, 2009; Zhang, 2013). However, sustainability reporting studies that focus on the financial services sector of the group of wealthiest democracies in the world (G7) on the ground of stakeholder, legitimacy, and new institutional theories are rare. Therefore, this study is contributing to the dearth of literatures that address the quality of sustainability reporting practices in the financial services sector of the G7 countries providing justification from the stakeholder, agency, institutional, and legitimacy theories. Also, the study aims of providing innovative contribution towards setting objective standards for assessing the quality of sustainability reports. This kind of objective criterion, would add to scientific knowledge in developing a comparatively strong and impartial measure for the extent of sustainable development globally.

1.6 Research Scope

This study is to explore the corporate drivers of quality sustainability reporting practices of financial services sector of G7 countries. The study considers the firms listed in the complete database of Global Reporting Initiative, which prepare sustainability report using GRI-G4 from 2014 to 2018. This support other studies with increase interest in industry-specific contexts in sustainability reporting, in the like of food and beverages, oil and gas, water and energy, retail, and financial institutions(Dong & Burritt, 2010; Guthrie, Cuganesan, & Ward, 2008; Mohammed Hossain & Reaz, 2007; Jizi, Salama, Dixon, & Stratling, 2014; Patten & Zhao, 2014; Scholtens, 2009; Turley-McIntyre et al., 2016). Results from these studies show that general sectors reporting, always provide broad and nonspecific sustainability disclosures that are not relevant in assessing their specific sustainability reporting practices, hence, industrial-specific reporting cannot be overemphasized as different companies' stakeholders can use this to make better business decisions. The importance of industry-specific sustainability reporting has become glaring and that the issues of sustainability have bearing on different industrial sectors in diverse ways (Dong & Burritt, 2010).

The research focus on financial services because of the crucial role the industry plays in the nation's economy by creating access to capital and other investment opportunities for both public and private individuals and business that reports on sustainability and also noted that exhibiting transparency and ethical behaviour is an integral part of business engagement (Pan, 2016b). Financial institutions often act as catalysts in

influencing the sustainable activities of other industries (Mohammed Hossain & Momin, 2008). Although financial institutions' operations do not directly contribute to negative social and environmental impacts, but the companies' clients could be prone to these impacts (Chang, Amran, Iranmanesh, & Foroughi, 2019a). The financial services in the G7 countries were examined because of the high visibility and the great influence the countries have over the global economic activities (Jizi et al., 2014; Scholtens, 2009). Also, in accordance to institutional theory, financial service institutions are expected to incorporate the regulations and belief systems that dominate the environment, which can be followed in various countries (Campbell, 2007). The study confined to the institutions that use Global Reporting Initiatives sustainability framework.

The rationale for the five years report of 2014 to 2018 is that the GRI G4 guidelines the study uses for sustainability disclosures index are used by organizations for sustainability reports within this stipulated period. GRI G3.1 was used before 2014 and as from 2018 GRI has launched a new version called "GRI Standard" that will be used for sustainability reporting in 2019(GRI, 2018a).

1.7 Limitations of Study

The study is limited in the evaluation of sustainability reporting practices using the stand-alone sustainability reports and annual reports of the sample companies because some reports were not available from the scope of the years covered by the study. This, therefore, result in unbalanced dataset to run the regression analysis. Also, the companies that prepared their reports in any language other than English without means of translation, and those that employed other sustainability frameworks beside Global Reporting Initiative guidelines version 4 were not analysed.

Lastly, the scope of the study covers the year 2014 to 2018, therefore, any report before 2014 and 2018 were not analysed. Hence, the current study is restricted to the content analysis of corporate reports for a period of five years.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

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As defined by GRI (2011) "A sustainability report is a report published by a company or organization about the economic, environmental and social impacts caused by its everyday activities. It also presents the organization's values and governance model and demonstrates the link between its strategy and its commitment to a sustainable global economy".

Kolk and Perego (2010) examine three levels where organizations need to embrace their sustainability performance, which are Economics, Environmental, and Social are explained as follows:

Economic, which does not limit to financial performance alone but to replicate the organization's broader influence on the economy, and appreciate that profitability, job creation and growth lead to return and benefits for families and tax income for the government.

Environmental tells about to the natural resources that are used to deliver products and services, and how the environmental issues impacted on the organization's operations.

Social echoes the impact that an organization has on the people and their social lives, which include the social side that relates to human relationships and partnership, the people side that relates to motivation, skills, and health, and ethics and business conduct.

The World Bank warns on climate change that over 140 million people from three regions of the developing world are prone to migrate within their native countries between now and year 2050 and such movement of people could originate enormous disruption, threatening governance and social and economic development (Harvey, 2018). Without any shadow of doubt, the negative effects of this occurrence will impact on the developed countries. These days, financial institutions play a most important role in ensuring the financial stability of the entire planet and are compelled to disclose their activities and in implementing better governance being accustomed to the subsequent economic benefits (Mohamed Buallay et al., 2021)

The financial institutions being the providers of financial capital for variety of businesses in all levels play a crucial role of promoting sustainability reporting across every industry, sector, and community (IFC, 2007) Sustainability reporting in return according to IFC, offers great possibility for financial institutions to improve in their products and services, and it is also becoming a vital way of having competitive advantage, which business can no longer set aside (IFC, 2007).

Khan et al (2010) share the view of IFC that financial institutions promote sustainable development because of their influence over the other sectors of economy as the providers of finance to their businesses, thereby representing key connection in the purpose of implementing the sustainability principles in industries, sectors, and communities. The financial service institutions, therefore, should be ready to accommodate the transformations in the national and global developmental goals into their services, in which some made as their core business. Sustainability reporting practice in financial sector institutions seek to address issues and provide information that are not made available in their financial statements, which are able to promote corporate visibility, environmental and societal impact. Although, the agenda of sustainability to financial sector institutions will manifest in both risks and opportunities that will require the financial institutions to make strategic choices about the market positioning they desired.

The development in sustainability has brought about Sustainable Finance. This is defined by IFC (2007, p. 7) as "the provision of financial capital and risk management products to projects and businesses that promote, or do not harm, economic prosperity, environmental protection, and social justice". Sustainable Finance, therefore, provides access to financial resources and risk management products and services to foster economic prosperity, creates social wellness, and promotes effort to fight environmental and climate changes.

Financial Institutions that engaged in sustainability reporting practices in some countries are doing so on voluntary basis, while it is made mandatory in few countries of the world. The European Union in December 2014 has adopted directive 2014/95/EU which mandated any public-interest entities (PIEs) that has more than 500 employees

to make non-financial statement inclusion in their management report with effect from 2017, which is called Non-Financial Reporting (NFR) (G. KPMG; Novokmet & Rogošić, 2016).

In achieving sustainable development, the financial institutions should have environmental policy in place in building environmentally approachable business institutions and operate differently within the context of sustainability segments i.e., social, economic, and environmental. It is, therefore, necessary to examine some of the factors that influence the financial institutions' sustainability reporting practices.

Some researchers have argued in the past that sustainable development should be part of the responsibilities of the larger firms being economic institutions and that they wield significant influence in the society where they operate, hence, they could help in using their economic resources in an altruistic way to meet the social and environmental objectives of the society (Davis, 1973; Steiner, 1972). It is also considered that engaging in sustainability activities is a crucial agenda that will not only benefits the companies, but it will also create a sustainability of the environment where the companies operate (Aman, Ismail, & Bakar, 2015); Hussainey and Walker (2009) report that many companies that have been commended for contributing to economic and technology increase have been seen to be unfair on social issues by creating social and environmental problems, which shown in different ways like pollution, resources depletion, waste, compromising in product quality and safety, workers' rights and status, and human right abuses. The solution to these endemic wrong doings is sustainability engagement (Aman et al., 2015).

2.1 Sustainability Overview

Sustainability is not a new issue but began much earlier and was commonly known as Corporate Social Responsibility (CSR). European Commission defines CSR as "a concept whereby companies integrate social and environmental concerns in their business operations and in their interactions with their stakeholders on a voluntary basis" (EC, 2001, p. 6). Subsequent the Brundtland Report, international bodies and institutions have tried to further simplify what sustainability implies and have attempted to reveal its major components. For instance, during the 2002 World Summit in

Johannesburg, Sustainable Development was defined as a concept that embraces not only environmental and social development, but also incorporate economic development (Drexhage & Murphy, 2010). The United Nations further underpinned the definition in 2012 and elongated it by the Sustainable Development Solutions Network (SDSN) in 2013 to include good governance as its fourth pillar (Biermann, Stevens, Bernstein, Gupta, & Kabiri, 2014).

The concepts of sustainability evolvement and the sustainable development have been part of a wider political discourse that have subjected their meanings and attributes into contestations and manipulations (S. Cohen et al., 1998). It has been a heat argument to ascertain what is sustainable, and this has drawn many people's attention. Sustainability and sustainable development are not regarded as two 'static' concepts, that are permanent in time and space (Rob Gray, 2010), but rather to be the stability and durability of dynamic processes within the distance future, and indirectly incorporate environmental, economic, and social dimensions of the present and future well-being (Stiglitz, Sen, & Fitoussi, 2009). The dynamism and durability of the sustainability concept, along with its environmental, economic, and social determinants, have always been interpreted in diverse ways (Drexhage & Murphy, 2010) and often regarded as separated by numerous researchers (Bebbington, 2009; Bebbington, Higgins, & Frame, 2009a; Rob Gray, 2010).

Sustainability signifies that an entity or an individual regards the future and other's needs as well as satisfying the needs of today. Sustainability is the framework that integrate the society's long-term environmental, social, and economic objectives as these can be referred to as Triple Bottom Line (TBL), the context originally formulated by Elkington in the year 1994 (Elkington, 2018). Triple Bottom Line involves the development of business process regarding environmental, social, and economic issues, which are three major aspects of sustainability. The process considers the present needs of the corporate stakeholders without conceding their future and others' needs. Sustainability issues according to Elkington (2013) can also be described as the three Ps - Profit, People, and Planet in which Profit means to the economic aspect, People is known to be the social aspect, and Planet is referred to the environmental aspect.

Sustainability helps to preserve the natural capital of the planet while undertaking the economic operations. According to Pope et al, 2017 who declare that the economic activities that the organizations undertaken should not go below the minimum limits to maintain the society acceptance and at the same time they should not go beyond the limits to prevent the environment deterioration (Pope, Bond, Huge, & Morrison-Saunders, 2017). Sustainability is not only to preserve the natural resources, but it also involved infrastructure preservation and the forbidding of the regular degradation of the world environmental (socio-ecologic) system and social accord, which requires a restructuring of those currently unsustainable, environmental, and social systems and should be done in terms of both the way of operations and systems' design for appropriate innovation and flexibility (Allais, Roucoules, & Reyes, 2017; Missimer, Robèrt, & Broman, 2017).

Sustainability requires that a firm must strike a balance between the preservation and the consumption of its needed natural resources, hence, the organizational sustainable development behaviour can be fostered if this balance could be achieved and this is proven in a way that organization improving its own operational performance as well as demonstrating capacity to save its environment, which is a concept of eco-capacity (Amui, Jabbour, de Sousa Jabbour, & Kannan, 2017; Dissanayake, Tilt, & Xydias-Lobo, 2016). The words Sustainable Development and Sustainability are occasionally used interchangeably as the scientific terminology of sustainability has been used to denote the condition that allows the sustainable development's principles to be put into use in order to achieve its objectives. (Marlen Arnold, 2017) argues that Sustainable Development is the practice of establishing a flexible system to the point of allowing the maintenance and restoration of the Earth's Economic, Social, and Environmental resources.

Sustainability could be seen nowadays as having a current managerial trend if going by corporate perspective, in which organizations have enable competences to entrench sustainability as an essential part of their organizational strategy and in turn, demand for the application of inventive practices, as organisations adapt to dynamic market situations and demands. The practice enable an organization to have competitive advantage over others and have a compelling future benefits that can create a distinctive

value, which ultimately impact positively on its corporate market value (Amui et al., 2017; Samudhram, Siew, Sinnakkannu, & Yeow, 2016).

Some studies advocate that, sustainability is not only good to be practised but also to be measured and evaluated before implementation, and this pre-implementation function of sustainability assessment is known as sustainability appraisal (Marlen Arnold, 2017; Pope et al., 2017). The measurement of the performance of sustainability uses an evaluation tool for development of sustainable performance of product or service. Modern sustainability frameworks for sustainability assessment can be used to predict the possible impacts of diverse activities prior their implementation on the aspects of corporate sustainability and to provide feedback that will enable organization to take corrective approach if needed after the implementation.

2.2 The Dimensions of Sustainability

The term Sustainability has been defined in the literatures by several authors (e.g. Ameer & Othman, 2012; Carter & Rogers, 2008; Dilling, 2010; Farneti & Guthrie, 2009). However, one thing is common in the publications, they all refer to the three dimensions of sustainability: the economic performance, society, and natural environment. According to these definitions, sustainability reveals that establishments not only attain their traditional financial performance but also thrive in their social and environmental performance (Pagell & Wu, 2009). Elkington and Rowlands (1999) refer to this as the triple bottom-line concept, a holistic assessment of companies' overall performance, evaluated by the incorporation of its economic, social, and environmental performance.

Similarly, this study agrees with the concept that sustainability reveals firm's economic, social and environment performance simultaneously (Carter & Rogers, 2008; Garg, 2015; M. Lopez, Garcia, & Rodriguez, 2007; Seuring & Müller, 2008). Hence, sustainability can be viewed as a set of three integrated concepts rather than as stand-alone pillar (Lozano, 2008; Sodhi, 2015; Figure 2.1). An example of such concept in the overlapping or integrated zone is to replace coal with natural gas to generate energy. From such action, the volume of greenhouse gases releases into the environment is reduced, living conditions of the neighbouring environment improves, and it also assist

firms to operate more efficiently. Figure 2.1 illustrates the three dimensions of sustainability.

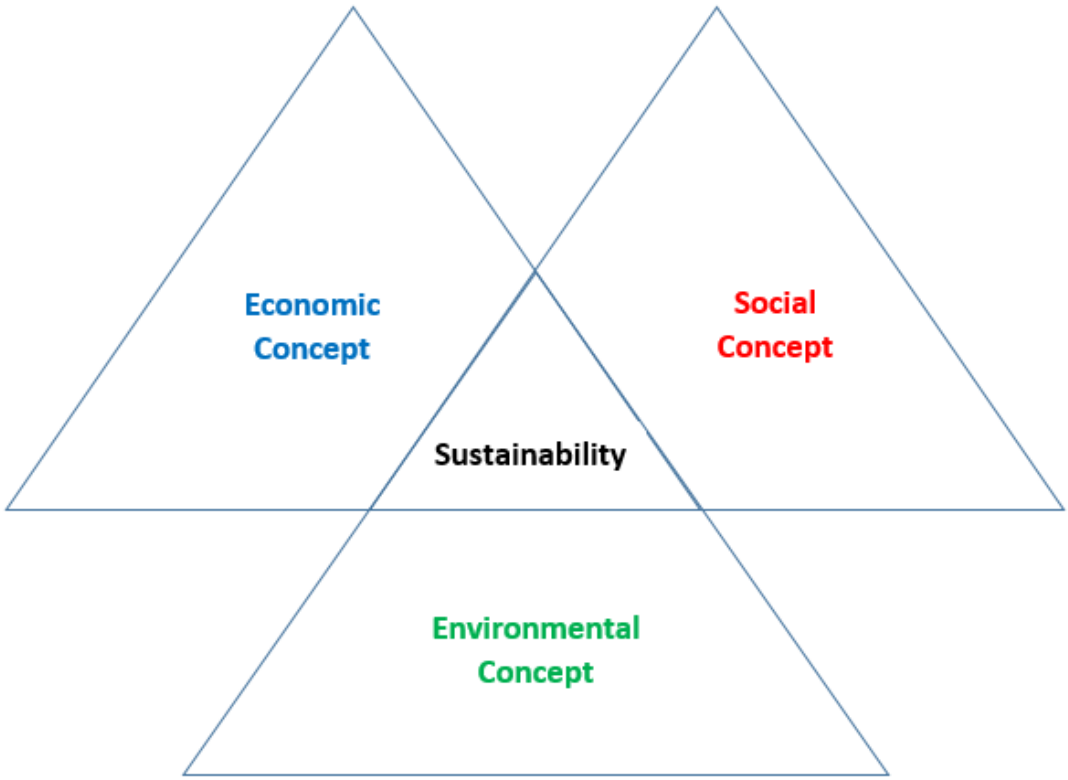

Figure 2.1: Graphical illustration of the three dimensions of sustainability modified from after (Lozano, 2008).

2.2.1 Environmental Sustainability

Shrivastava (1995) describes environmental sustainability as the effort to abridged long-term risks related to product liabilities, resource exhaustion, energy costs fluctuations, waste management and environmental pollution issues. Dyllick and Hockerts (2002) define environmental sustainability as "consumption of natural resources at a lower rate than natural reproduction, and no or little emissions at a rate beyond the ability of the natural ecosystem can absorbs and assimilates these emissions''. Also, Morelli (2011) defines environmental sustainability as "an expansion of our common perception of the nature of human activity so as to more clearly connect it with the ecological concept of interdependence". Thus, it delineates that the use of sustainability agrees with the overlap of human activity within the operation of the supporting ecosystem. Hence, environmental sustainability, is a subdivision of ecological sustainability. According to Moldan, Janoušková, and Hák

(2012) environmental sustainability is about “maintaining the nature’s services at a suitable level’’.

Generally speaking, the concept of environmental sustainability can be considered as adding depth to the already known and common definition of sustainable development, i.e., “meeting the needs of the current generation without compromising the ability of future generations to meet their needs” (Lousley, 2015; WCED, 1987). More explicitly, environmental sustainability could be described “as a condition of, resilience, balance and interrelatedness that allows satisfaction of human needs while neither exceeding the capacity of its supporting ecosystems to continue to regenerate the services necessary to meet those needs nor by our actions diminishing biological diversity” (Morelli, 2011).

Environmental sustainability ascertains that environmental resources is restricted, hence hypothesis that corporations need to redesign, restructure and reform their processes are in place, so as to reduce their negative environmental impact (Shrivastava, 1995). Environmental sustainability addresses significant issues such as waste reduction, resources conservation, decrease in hazardous materials consumption, and greenhouse gases reduction (Gimenez, Sierra, & Rodon, 2012; Montabon, Sroufe, & Narasimhan, 2007; Yadav, Singh, Srivastava, & Mishra, 2021).

Corporations effect environmental sustainability by implementing environmental practices in their strategic planning procedures and daily operations (Closs, Speier, & Meacham, 2011; Halldórsson, Kotzab, & Skjøtt-Larsen, 2009; M. Lopez et al., 2007). Environmental practices denote all activities engaged by organisations to manage and enhance their environmental responsibilities which include any activity that promote and advance environmental sustainability (Tate, Ellram, & Gölgeci, 2013). Several authors also support the opinion that environmental practices comprise all activities and efforts that result in diminishing negative environmental impact of company’s products all through its life cycle, ranging from product development to its delivery and finally the product disposal (Klassen & McLaughlin, 1996; M. Lopez et al., 2007; Sroufe, 2003).

2.2.2 Social Sustainability

Social sustainability refers to companies' responsibilities to the society and comprises issues regarding access to education and health care, sanitation, income inequality, poverty and diseases alleviation, and general society's wellbeing (Eizenberg & Jabareen, 2017; Haugh & Talwar, 2010; Vallance, Perkins, & Dixon, 2011; Woodcraft, 2015). Social sustainability is also associated with company's human capital and comprises business practices that are favourable to the employee of the company directly or indirectly (Sroufe & Gopalakrishna-Remani, 2019). It requires that organisations provide training and employee continuous development, encourage diversity, offer equitable opportunities, and support high occupational health and safety measures (Branco & Rodrigues, 2007; Slaper & Hall, 2011; Woodcraft, 2015).

Vallance et al. (2011) identified threefold aspect of social sustainability: (i) *development sustainability* which relate to the creation of social capital, basic needs, justice and other similar issues; (ii) *bridge sustainability* which deals with changes in behaviour in order to attain bio-physical environmental objectives and goals; and (iii) *maintenance sustainability* that demonstrates the preservation or sustenance of practices and traditions such as the preservation of natural landscapes, low-density suburban living, and the use of the private car. Maintenance social sustainability is associated to the means whereby the environment, cultural and social preferences and features are maintained or preserved over time.

Corporate social sustainability aims to increase the positive impact of its internal and external communities. Internal groups include employees while external communities include the society at large (Pullman, Maloni, & Carter, 2009; Sarkis, Gonzalez-Torre, & Adenso-Diaz, 2010). According to Dyllick and Hockerts (2002), social sustainability is defined as adding significance to the societies within which the firm functions by increasing the human capital of distinct partners and promoting the societal capital of these groups. Hence, it can be concluded that there are two dimensions of social sustainability; the internal one which relates to the employees, subcontractors, suppliers, and other labour practices of the firm, and the external dimension which relates to social and community aspects of the firm (De Stefano, Bagdadli, & Camuffo, 2018; Sanjay Sharma & Henriques, 2005).

2.2.3 Economic sustainability

Economic sustainability relates to companies' economic impact on their internal and external stakeholders alongside their economic structures locally, nationwide, and globally (de Lange, Busch, & Delgado-Ceballos, 2012; Labuschagne, Brent, & Van Erck, 2005). Firms must record great performance at micro-scale by reducing costs and maximizing profits as well as having shareholder returns before considered as economically sustainable (Closs et al., 2011; Haugh & Talwar, 2010). Hence, the economic aspect of sustainability is not limited to profitability only, but it also deals with delivering of cash flows sufficient enough to retain liquidity and enhances shareholder's return (Dyllick & Hockerts, 2002; Spangenberg, 2005).Certain authors (e.g. Azapagic, 2004; M. Wagner, Van Phu, Azomahou, & Wehrmeyer, 2002) also argued that economic sustainability should consider the flow of fund and the bottom line, including indicators such as profits and shareholder returns, while financial ratios and stock market performance should not be neglected. According to Spangenberg (2005) economic sustainable development is mostly considered as the need to constantly maintain a permanent wealth or income for humanity that is generated from underlined capital stocks.

2.3 Corporate and Sustainability Reporting

Corporate reporting is liking to the form of annual report, which shows the detailed information of company's financial and operational performance or press releases, which is a way of disseminating some vital information about the company to the public, or any other forms of disclosure that present the company's accountability and transparency to its stakeholders. Sustainability is one of the reports that came into infusion out of the increasing stakeholder requirements for accountability and transparency for social and environmental issues (Lodhia & Hess, 2014; O'Dwyer, 2002a).

The providers of capital in an organization are concerned with the economic activities, which impact on the organization's capital position and be likely ignore the effect of these activities on the surrounding environment and society. Hence, the organization provides conventional financial reports for their capital providers that include satisfactory information relating to the economic performance of the organization as to

satisfy the needs of the providers of capital, which are mainly creditors and investors (Samudhram et al., 2016).

Reporting has been a general means in which companies communicate and share vital information to shareholders and all stakeholders. It promotes accountability and transparency between organizations and stakeholder (Guidry & Patten, 2010; O'dwyer, 2002b). Transparency is a critical factor in building trust, sustaining relationship, managing risks, and improving reputation. Stakeholders leverage on transparency to make an informed decision and to better understand business processes. In this study, three categories of reporting are briefly considered, these include: annual financial reporting, sustainability reporting and integrated reporting.

2.3.1 Annual Financial Reports

Annual financial reports is the largely common document produced by public firms to inform their investors, shareholders, and creditors about their financial position and performance (Sanjay Sharma & Henriques, 2005). Every public corporations produced financial reports annually (Brennan, 2001; F. Li, 2008) and represents a means by which firms connect with several stakeholder both internally and externally (Guthrie, Petty, Yongvanich, & Ricceri, 2004). Financial information that are available in the annual reports are used by the stakeholders to make informed decisions (Ryan, Dunstan, & Brown, 2002). Annual financial reports partially contain companies' obligatory disclosure which are controlled by accounting and securities regulatory bodies. Hence, it is crucial that firms are audited, as the stakeholders must be confident that the annual reports reveal a factual state of the company's financial performance. The regulatory system thus, emerge in order to control and guide the framework and standard of financial information that are published (Guthrie et al., 2004; Ryan et al., 2002).

Certain regulations exist in the United State of America and other parts of the world, some of which include Generally Accepted Accounting Principles (GAAP) and International Accounting Standards (IAS), which are set to regulate financial information disclosure within the public domain (Ampofo & Sellani, 2005; Carpenter & Feroz, 2001; Epstein, Nach, & Bragg, 2009).These regulations are mostly statutory and are found in the Companies Acts. There are other non-statutory accounting

standards and guidelines which are issued by the International Accounting Standards Board, IASB (Cellucci, 2010; Donnelly, 2007). One of these standards is international Financial Reporting Standards which has been adopted in several countries such as Canada, Brazil, India, and China (Beiruth, Fávero, Murcia, de Almeida, & Brugni, 2017; Jeanjean & Stolowy, 2008; Sharad Sharma, Joshi, & Kansal, 2017).

Remarkable development in the global economy in the past decades has called for a paradigm shift from the traditional financial reports to consider environmental and social issues due to global warming that resulted from environmental degradation. Some researchers concur that, for these environmental social issues to be effectively managed at the macroeconomic level, they must first be managed at the microeconomic level that is at the level of the organization (Dissanayake et al., 2016; Samudhram et al., 2016).

It is widely believed among the business stakeholders that information from financial report of an organization cannot sufficiently reveal the wholistic impact of its corporate activities. Hence, a non-financial report would be required to provide the broad and diverse outlooks of the environmental and social performance of the company to all the stakeholders, and this non-financial report is known as sustainability report. Albeit, organizations seek to disclose the non-financial information voluntarily as the information is not always required by regulations, but organizations belief that such disclosures would indirectly add value to the organization (Cuadrado-Ballesteros, Martínez-Ferrero, & García-Sánchez, 2017).

2.3.2 Integrated Reporting

Integrated report is a recent method of reporting, comprising firms' analysis on financial and non-financial performance. Integrated reports incorporate environmental, social and economic information in a summarized format, which enables a free-flow of information and break down organizational silos (Burke & Clark, 2016; La Torre, Bernardi, Guthrie, & Dumay, 2019). Integrated reports provide not only social sustainability reports, but also communicate a holistic picture of the firms' performance to its stakeholders (Burke & Clark, 2016).

Integrated reports consider voluntary disclosure but do not substitute financial reports. The motivation behind firms producing integrated reporting is to engage shareholders and all stakeholders in environmental, social, governance issues. It is a new development reporting scheme where companies are held liable for their impact on society and society (R. G. Eccles, Ioannou, & Serafeim, 2014).

Integrated reporting is being controlled by the International Integrated Reporting Council (IIRC) which is a global coalition of regulators, companies, investors, accounting profession, standard setters and NGOs that brings together relevant and informed individuals and companies to involve in their corporate reporting (Cheng, Green, Conradie, Konishi, & Romi, 2014; Kılıç & Kuzey, 2018; Salvioni & Bosetti, 2014). Integrated reports reveals both financial and non-financial position of firms' performance and their future projections, it considers the three concepts of sustainability (Cheng et al., 2014; R. G. Eccles & Saltzman, 2011; Hughen, Lulseged, & Upton, 2014).

2.3.3 Sustainability and Quality of Reporting

Sustainability reporting extends corporations accountability outside the traditional practice of generating shareholders' financial account. It applies the principles of traditional financial accounting, and centres on information disclosure of companies' social and environmental performance to shareholders as well as all stakeholders (Bebbington, Larrinaga, & Moneva, 2008; Burritt & Schaltegger, 2010). Rob Gray and Bebbington (2001) classify sustainability accounting into three distinctive methods: sustainable cost, natural capital inventory accounting, and input-output analysis. *Sustainable cost* is referred to as the theoretical cost of reinstating the earth to its original state before a firm's impact. In other word it is the total fund a firm would utilize by the end of its financial year so as to bring back the biosphere into the state it was as of the beginning of its financial year (RH Gray, 1994). *Natural capital inventory accounting* refers to recording of natural capital stocks over a period, whereby fluctuations in capital stock levels (declining) is used as a pointer to the quality of natural environment. *Input–output analysis accounts* describe the physical flow of processes and materials, energy inputs and product, as well as waste outputs in physical

parts. It considered all input materials, the outputs of finished products, its emission, recycling and the waste disposal (Lamberton, 2005).

A more effectual sustainability reporting should distinctly indicate a corporate strategy that centred on the existing market demands with the applicable conditions. The existing of market demands is impacted by economic settings and engaged in social settings, which places environmental settings as limiting factors, therefore, a comprehensive report that incorporate these three market demands should be a consideration of the corporate performance and should be disclosed as sustainability reporting in the form of performance indicators to the stakeholders. These performance indicators should be measurable, understandable, and give support to the corporate decision making process (Dissanayake et al., 2016).

Sustainability reporting, which can also be referred to as corporate social responsibility reporting offers an effective solution to manage the performance of environmental, social, and economic issues in an organization. Sustainability reporting is regarded as the endpoint of the process that helps, encourage, achieves, and report the activities of the organization, regarding the total goals of sustainable development (C. A. Adams, 2015; Brusca, Labrador, & Larran, 2018; Samudhram et al., 2016).

According to B. Lopez and Fornes (2015), Corporate Social Responsibility consider environmental, social and corporate governance aspects thereby complimenting traditional financial reports, and providing vital and useful information to stakeholders. Waddock (2006) defines Corporate Social Responsibility as the means in which companies legislate their operating practices and policies that affect the stakeholders and environment, combined with the duties, responsibilities, and rights that companies have to societies where they operate.

Historically, the progression and emphasis on sustainability-related reporting has undergone several changes (Hahn & Kühnen, 2013). In the 1970s, Western countries often complement traditional financial reporting by applying additional social reports. In the 1980s, environmental issues such as waste generation and emissions replaced initial social reporting. Towards the end of the 1990s, social and environmental issues were simultaneously considered in a single report, often published with traditional

financial reports (Hahn & Kühnen, 2013). This trend is related to the development of voluntary standard-setting by the Global Reporting Initiative (GRI) (Kolk, 2010; Vormedal & Ruud, 2009). Currently, the GRI is regarded as "*the de facto global standard*" for sustainability reporting (KPMG, 2011).

Corporate social responsibility emerge from the fact that establishments have commitments to society other than mere making profit (Godfrey & Hatch, 2007). The need of social and environmental concerns to be encompassed in businesses' activities, as well as improved collaboration of businesses with stakeholders is the driving factor of CSR (Van Marrewijk, 2003). CSR relates to intricate issues such as waste, resource depletion, pollution, local communities, workers' treatment, product quality and safety, the power of large corporations (Rob Gray, Owen, & Maunders, 1988; Jennifer Ho & Taylor, 2007).

Various studies have revealed that certain factors influence corporate social responsibility disclosure. These include institutional and cultural factors (Adnan, Hay, & van Staden, 2018; Buhr & Freedman, 2001; Gallén & Peraita, 2018; Young & Thyil, 2014), country of origin (Kolk & Pinkse, 2010; Miniaoui, Chibani, & Hussainey, 2019; Newson & Deegan, 2002), the nation's economic and social development stage (Jizi et al., 2014; Jason Zezheng Xiao, Gao, Heravi, & Cheung, 2005), regulatory and legal context (Faisal, Situmorang, Achmad, & Prastiwi, 2020; Tilt, 2016) and jurisdictional business structures (Adnan et al., 2018; Faisal, Tower, & Rusmin, 2012; Galant & Cadez, 2017) are significant determinants of the type and level of CSRD.

Trotman and Bradley (1981) study the reasons for which companies provide CSR information and determine the connection between corporate social responsibility disclosure and company's attributes such as size, social pressures, systematic risk, and management's decision horizon. The study is based on 207 listed organizations on the Australian Stock Exchange (ASX). Their findings revealed that businesses which provide corporate social responsibility information are on the average, bigger in size with greater systematic risk. Additionally, evidence from the study show that a positive association exists between company size, long-term decisions-making, degree of social pressures and the volume of CSRD.

Brammer and Pavelin (2008) contend that high quality corporate social responsibility disclosures are principally connected with larger firms, this is because larger firms interact more with the society and tend to hold higher economic impact. These organizations also appear to be more noticeable to relevant publics. Their observation on 450 leading companies in the United Kingdom on the factors that impact the quality of environmental disclosure revealed that high quality corporate environmental disclosures are mostly related to larger organizations and those most closely associated to environmental sectors.

Bose, Khan, Rashid, and Islam (2018) investigate the impact of regulatory guidance and other factors on the green banking disclosure practices of the commercial banks in Bangladesh from 2007 to 2014. Ordinary least squares (OLS) model was used to appraise the relationship between green banking and banking characteristics (Corporate governance, Firm size, Firm age, Leverage, and Profitability). The results show that there the banking firms that have larger size of board membership and also higher percentage of institutional ownership usually have higher level of green banking disclosures.

Dong, Xu, and McIver (2022) examine the institutional forces that influence the sustainability reporting quality of China's listed financial institutions. The study investigates the quality of disclosures made between 2009 and 2017 from non-financial report of the China Listed Firm's Corporate Social Responsibility Research Database (CSRR Database). The authors measure quality by examining whether financial companies prepare their sustainability reports in line with the GRI framework and use multiple regression analyses approach. The results show that government policy, which was known as Green Finance has not become impetus for the financial firms to improve reporting quality.

The study carried out by Jason Zezheng Xiao et al. (2005) on corporate social responsibility disclosure determinants from 33 listed companies in Hong Kong indicated that industry type and firm size have significant impact on level of CSR disclosure. Similarly, Cormier et al. (2005) studied 76 large German Companies with 304 observations. Their findings revealed that risk, firm size, fix assets age and

ownership which are firm's characteristics that influence environmental disclosures. According to da Silva Monteiro and Aibar-Guzmán (2010), stock exchange listing and firm size are significantly correlated to the level of environmental disclosures. Their finding is based on study from Portuguese 109 large corporations.

However, the quantity of reporting is not a satisfactory proxy for the quality of sustainability reporting. Hence, quality of reporting depends both on the quantity of information disclosed and on the richness offered by additional information (Beretta & Bozzolan, 2004). While the quantity of reporting has been examined in previous literature, not much attention has been given to the richness of the information for quality. Brammer and Pavelin (2008) argue that quality should relates to the way the disclosure of information transforms the understanding of the stakeholder on the firm's corporate strategy, and in particular the environmental impact. Quality of reporting according to Hooks and van Staden (2011) is referred to completeness of disclosure or the level of reporting details, which shows the intensity of the information, comprehensiveness, or degree of specificity.

2.4 Criticism of Sustainability Reporting

Lozano and Huisingh (2011) claim that the scholarly literatures attempted to provide over seventy definitions in supporting the concept of sustainability. On the other hand, Onn and Woodley (2014) argue that the diverse definitions of sustainability and the manner of operation within the organizations have made the term sustainability fundamentally undefined. According to Bebbington and Larrinaga (2014) which posit that the diverse ways to define sustainability have allowed its components to be subjected to numerous definitions and interpretations as they become arenas that can be solely understood across multiple lenses. Hence, the term sustainability can have diverse meanings, which are often evolving with its components. As suggested by Frame and O'Connor (2011), the absence of a unique definition of sustainability has rendered the concept to be an 'empty signifier', which allows for multiple meanings.

Bowers (2010) claims that while there is an increase in the number of organizations that are reporting their sustainability practices in the recent years, the sustainability reporting genre has been severely criticized from within and outside the organization,

giving the instance of the 2006 material report publication that was produced by a partnership of the leading academics and businesses, which the authors criticize the state of the current sustainability reporting as showing a real danger "that reporting on social and environmental performance will become an exercise in compliance, which contributes little to learning or innovation, with sustainability reports becoming bloated data-dumps" (Bowers, 2010, p. 250). Subsequently, the compiled report of the 2006 survey of corporate sustainability reporting by Sustainability, an organization that was funded by John Elkington describes the current method of sustainability reporting as "carpet-bombing" since organizations try to "cover every conceivable issue to ensure they benchmark well" (Bowers, 2010, p. 250). While sustainability reporting shows that more information is being provided to the investors and stakeholders, the information is seen as the degree of compliance by the organizations to their diverse labour laws and environmental regulations. Additionally, Bowers (2010) argues that there is little evidence that sustainability reports can provide to show how social and environmental issues undertaken by organizations, directly improve the business economic performance. Some researchers emphasize that the practices of sustainability reporting have often been used as means of covering the past events of bad sustainability practices, instead of demonstrating the reality and managerial actions (Gond, Palazzo, & Basu, 2009; Rob Gray, 2006a, 2010; O'Dwyer, 2002a; Spence, 2007).

According to the research conducted by (O'Dwyer, 2002a) in which a group of 29 senior managers who were the employment by 27 Irish public limited companies were interviewed to understand their motivations for sustainability reporting practices. Meanwhile, some managers acknowledged the efforts that their organizations channelled towards sustainability practices came in response to the stakeholders' request and the market's reaction, while other managers that were viewed that the fundamental motivations for sustainability reporting practices were orchestrated by the desire to improve corporate legitimacy (O'Dwyer, 2002a). The motivations for the social, environmental, and sustainability accounting reporting practices could be seen as unprincipled business as usual tactics (Spence, 2007). The business-as-usual approach in social, environmental, and sustainability accounting and reporting (SESAR) as explained by Rob Gray (2006b) is when an organization considered SESAR in environmental management as a defensive approach by trying to bring

restrictions rather than aiming at the ways and manners to improve the environment. Gond et al. (2009) argue that sustainability reporting practices do not essentially support socially responsible behaviour but rather are used to build legitimacy and veil shoddy sustainable performance. The study of Hopwood (2009) agrees with the previous authors on sustainability reporting that the practices provide "a new face to the outside world while protecting the inner workings of the organization from external view. Done with skill and a fair amount of planning and thought, it is possible for some modes of reporting to thicken that veil such that even less is known of the corporation despite the apparent openness of its reporting" (Hopwood, 2009, p. 437). Sustainability reporting is seen by (Cho, Laine, Roberts, & Rodrigue, 2015) to be a 'veil' that shields the wrong behaviour of organizations and also is tagged as mere 'facades' of their poor performance.

Spence (2007) in his study examines the link between the underlying motivations of sustainability reporting practices and the representations of the social and environmental performance of organizations. The author interviewed some representatives of the 25 biggest UK capitalist companies, and his finding shows that the practices of business-based SESAR is "antithetical" to the sustainability initial reforming intent of reducing poverty and the relentless ecological problem, which has not been good feedback to the external stakeholders, but has created cynicism about the approaches of organizations' sustainability reporting practices Spence (2007).

Laine (2009) claims that sustainability reporting practices are being used as rhetoric and the tools for image management to reinforce the wider social beliefs on how the business-as-usual approach of organisations is having a mitigating impact on environmental issues, which then results in sustainability reporting. The author demonstrated this by examining the environmental disclosures of a foremost Finnish chemical firm spanning from 1972 to 2005. The findings show that throughout the 34 years, sustainability reports have been used as key transitions in projecting the exaggerated image and reputation of the firm as a means of conforming to social expectations and responding to the changing institutional pressures in maintaining corporate legitimacy in the society (Laine, 2009).

2.5 Financial Services

The strong concern for sustainability reporting is largely confined to the manufacturing sector with a little focus on the services sector, especially financial services. It appears that the word sustainability is alien to financial services. However, as the economies are gradually moving in developed countries from a manufacturing focus to the direction of service orientation, service sectors have now become key players in the global economy (Pan, 2016b).

Sustainability is a developing concern for financial markets, insurers, borrowers, and regulators and it is a possibility to meet new and prospective clients expectations by offering innovative solutions (Deloitte, 2014). The emerging awareness of sustainability issues, in conjunction with the growing understanding in the finance sector and the impact of sustainability on corporate performance, is becoming a stimulus for banks, insurance firms, asset managers, and investors to incorporate sustainability data at unprecedented levels into decision-making processes. Pan (2016b) explains that sustainability has become a very crucial agenda not only to manufacturing industries but also for all industries due to the growing environmental challenges, increasing awareness of social responsibility, and the ultimate desire to maintain profitability and create wealth for the shareholders. The financial services sector plays a central role in any nation's financial system, which serves as a backbone of any economy because of its direct influence on the economic growth of a nation, hence, a stable financial system is a bedrock for sustainable economic growth (Chaudhury, Das, & Sahoo, 2012; Pan, 2016b). As sustainability is currently becoming one of the major trends in the financial services sector, the banking industry is also being positioned to play a vital role in the sustainable development in the form of incorporating the desire of the investors for sustainable responsible investing (SRI) or consideration given to the direction of the investors on environmental impact issues or corporate management focusing on corporate social responsibility (CSR) (Nizam et al., 2019). The role of financial institutions often exceeds their original role as intermediaries, as their core function as enablers of economic growth and prosperity continues to be undeniable, but civil society, principally in the developed countries, is gradually worried about how the financial institutions fulfil this purpose (Nizam et al., 2019). Some even advocate for the need for "moral capitalism", which is in harmony with environmental and social concerns, hence, the civil society groups have always criticized the financial institutions

for seeking a huge stewardship commitment, concerning their contribution to support businesses and development that adversely affect the environment significantly, undermining human rights, and are associated to a severe negative impact on their local communities by their indirect actions with their capacity to influence the businesses and project they finance (Nizam et al., 2019).

Yeung (2011) ascertains some key elements of corporate social responsibility reports in the banking sector, which include managing risk, understanding the complexity of financial services, protecting the customers, establishing channels for customers' complaints, and strengthening ethics in the banking business. Chang et al. (2019a) consider that some financial service institutions have specific societal expectations, such as supporting financial privacy, reinforcing corporate governance, providing equal opportunities for employment, minimizing money laundering, preventing tax evasion, and creating environmental awareness. The integration of the practices of sustainability into the financial institutions' core business activities is germane, in securing the institutions' closer alignment with the environment where they operate, so that the integration will create business opportunities that will have a positive effect on the financial and non-financial performance that leads to greater control of financial and helps to manage other operating risks in avoiding any future crisis (Herzig & Schaltegger, 2011). Some of the operators in the financial institutions such as insurance firms, commercial banks, and mortgage houses have relationships with various clients in the agriculture, manufacturing, oil, and gas sectors that have a substantial impact on the environment (Nwobu, Owolabi, & Iyoha, 2017). The practices of sustainability reporting by financial institutions have become effective tools in managing the business and reputational risks at the time of recession "Banks that have realized that their sustainability initiatives have helped them manage business and reputational risks during the recession have all the motivation they need to integrate sustainability principles throughout their business. Guler Aras, Tezcan, and Furtuna (2018) affirm that banks are regarded to be the foremost financial institutions with a significant impact on sustainable development through managing expenses and saving from financial systems to be invested. And those that ignored sustainability and pursued greed-driven profits have had a hard lesson, sustainability makes business sense" (Herzig & Schaltegger, 2011, p. 1873). Despite the increasing managerial interest in sustainability reporting practices in the financial services sector, the link between the

sustainability reporting practices and the performance of financial institutions is still an ongoing research (Bouvain et al., 2013).

Turley-McIntyre et al. (2016) work on a cross-sectional appraisal among some selected Canadian financial institutions, which include four banks, two crown corporations, seven credit unions, and three insurers. The researchers use a comprehensive survey with a target audience to arrive at their overall finding that, there is a direct relationship between sustainability performance and financial performance.

Money and Schepers (2007) examine the link between the performance of the firm and corporate social responsibility and governance. They used interviews to collect data from thirteen corporate social responsibility practitioners and senior corporate governance in UK companies. The study concludes that there is a direct relationship between shareholders' and stakeholders' value and identifies that management uses the activities of CSR to mitigate the risk indicators in the company and improve its performance. This becomes achievable due to the reputation and trust that have been developed because of the relationship built between the firm and its stakeholders that triggered good social behavior.

Castelo Branco and Lima Rodrigues (2006) carry out a study to establish if Portuguese banks use their websites as an avenue to disclose social responsibility information and find out the type of information that is being disclosed and compare the information with the related disclosure in annual reports in the perspective of legitimacy theory. The study employs the content analysis method to examine social responsibility disclosure in the annual reports of forty-eight registered banks of Portugal. The findings reveal that banks with greater visibility among their customers deem to demonstrate greater concern to advance the corporate image through the disclosure of social responsibility information.

There are other researchers also that have done some notable works on sustainability or corporate social responsibility in financial institutions (Achua, 2008; Chaudhury et al., 2012; Chih, Chih, & Chen, 2010; M. A. Islam et al., 2016; M. N. Islam & Chowdhury, 2016; Scholtens, 2009; Simpson & Kohers, 2002; Wu & Shen, 2013).

2.6 Project Financing and Equator Principles

Aggressive participation of financial institutions in curbing dangerous climate change that causes global warming is one of the ways to add value to the society in order to have a shift in the environment to a green and low-carbon economy (UNEP, 2014). The concern for environmental and climate change led to the formation of an association of members of Equator Principles Financial Institutions (EPFI) on June 4, 2003, that adopted a set of environmental procedures, which is referred to as the Equator Principles for sustainable finance (Association, 2011; Hardenbrook, 2007). Private banks with support from the International Finance Corporation and World Bank developed the EP to be a voluntary code to ensure that projects financed by financial institutions is developed in a way that is socially responsible and exhibits sound environmental management practices (Hardenbrook, 2007). Equator Principles have become a global framework for risk management and the development of sustainability activities, which harmonize with international principles (Guler Aras et al., 2018). The principles encourage banks to voluntarily sign up and thereafter, it becomes mandatory for them to abide and follow certain requirements related with environmental and social issues in their financing procedures (Hardenbrook, 2007). EP is set of guidelines that do not only regulate natural environment risk management, but also improve profitability in the banking sector as companies can achieve more financial benefits and sustainability when investing in corporate social responsibility activities (Sarfraz, Qun, Hui, & Abdullah, 2018).

Financing mechanisms usually have an effect on corporate sustainability practices in project execution, particularly project financing, equity, and bank credit (Scholtens, 2006). Because projects are long-term investments in the industry, infrastructure, or public services of a community, investors have to consider the long-term stability of a project and its impact on a wide set of stakeholders, including local communities, employees, and the government (David M. Silk & Carmen X. W. Lu, 2022). Project financings have certain features that give protections to creditors – such as all-assets pledges, structures, and covenants to lessen volatility in project cash flows prioritising debt servicing over the distribution of equity, which allows companies to have higher leverage ratios above the traditional companies while keeping similar credit quality (David M. Silk & Carmen X. W. Lu, 2022). EP is becoming the industry standard for financial institutions on how to manage the risk in projects that associate with

environmental and social concerns. The principles are adopted by financial institutions in ensuring that the projects the institutions' finance are implemented in a socially responsible manner and replicate good environmental management practices. In doing so, negative effects on project-affected communities and ecosystems should be averted where possible, and if unavoidable, adverse impacts on project implementation should be minimized, mitigated, and/or appropriately compensated (EP, 2022). The ten principles of Equator Principles that are used for project financing and development are shown in Figure 2.2.

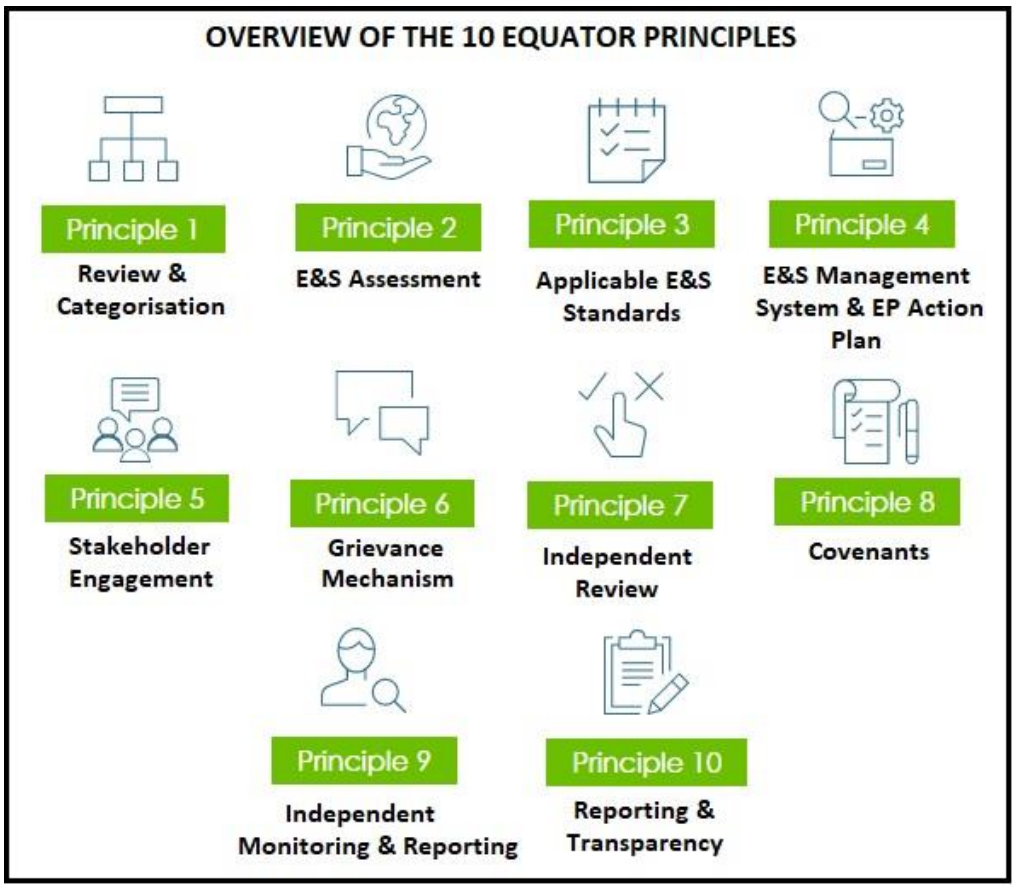

Figure 2.2: Overview of the 10 Equator Principles, modified after (EP, 2022)

The Equator Principles are principally intended to provide a basic standard for due diligence to give support for responsible decision-making on the ground of careful assessment of risk and the guidelines can activate a need to conduct certain activities with regard to any social or environmental issues that have been previously identified (David M. Silk & Carmen X. W. Lu, 2022). EP is an acceptable voluntary code, which

is formulated for responsible project financing by financial institutions (Richardson, 2005)

2.7 Global Reporting Initiative and its Impact on Corporate Sustainability

GRI was established in 1999 as a non-profit organization to promote sustainability by developing guidelines for organizations to make sustainability reporting and by 2002, GRI has quickly become the global leader among other organizations that engaged in voluntary reporting programs on corporate sustainability (H. S. Brown, De Jong, & Lessidrenska, 2009). Sustainability being a multi-dimensional concept is not precisely measurable and therefore, requires a set of indicators to facilitate its performance toward multiple objectives assessment (Lamberton, 2005). Those sets of indicators are called frameworks.

There are several frameworks that emerged from different organizations to provide reporting guidance which includes: Global Reporting Initiative (GRI), The United Nations Global Compact, The International Organization for Standardization (ISO 26000), and The Organization for Economic Co-operation and Development (OECD). Among all these providers, GRI Sustainability Reporting Guidelines are the most detailed, developed, and used frameworks that allow organizations in all over the world to quantify their impact on the economy, society, and environment (M. A. Islam et al., 2016). The GRI framework has become *a de facto* standard for the reporting of sustainability for organizations worldwide (Etzion & Ferraro, 2010).

The Global Reporting Initiative (GRI) reporting framework has been utilized globally by several firms for sustainability reporting. It is generally recognized as the foremost standard for sustainability reporting (C. A. Adams & Frost, 2007; Dingwerth & Eichinger, 2010; Hussey et al., 2001; Woods, 2003). The GRI's objective is to improve responsible decision-making by supporting global harmonization in reporting information that are credible and relevant to corporate economic, social, and environmental performance. The GRI attempts to balance the concept of inclusiveness and complete presentation of information, incorporating the objectivity that users or stakeholders demand (Woods, 2003). The analysis conducted by KPMG on over 2200 firms including the 100 largest firms by revenue from 22 various countries indicated

that about three-quarters of these firms used the GRI framework for reporting (KPMG, 2008). Similarly, results from a recent study revealed that the GRI remains the most common reporting standard globally, although it was observed that the application of GRI reporting framework has been declined among the world's largest companies (King, Bartels, McKenzie, & Austin, 2015).

According to H. S. Brown et al. (2009), the maiden edition of the GRI guidelines was launched in June 2000 and followed by the second edition (G2) in August 2002, then the third generation (G3) in October 2006. The 4th generation was launched in February 2014 to take effect in 2015 and alongside G4 sector disclosures for financial services (GRI, 2015). Since corporate sustainability reporting is not mandatory in most of countries, therefore, the disclosure formats are going to be varied and the contents subjective, which will give room for ambiguity and incomparability of reports. This study, therefore, uses the frameworks of GRI to overcome these challenges. The study uses the 4th generation (G4) guidelines as sustainability reporting indicators, being the updated version that covered the period under examination (2014 to 2018).

Buhr and Freedman (2001) examine the role of institutional and cultural factors on mandatory and voluntary environmental disclosure by the US and Canadian companies. The authors use a longitudinal approach to evaluate and compare the environmental disclosure of 56 Canadian companies and the US in 1988, and 68 companies from the same countries in 1994. The researchers use the content analysis methods to measure the extent of environmental disclosure in four major categories: legal/costs, emissions, management, and miscellaneous. The research results show that the Canadian companies have a higher extent of environmental disclosure than US firms in both years 1988 and 1994. It is argued that the disparities in the level of the disclosure are affected by the business climate and political system.

Dong and Burritt (2010) examine an industry-specific sustainability reporting on the study of the oil and gas industry in Australia. The authors use the content analysis method to review 25 listed firms in 2006 from the Australian Stock Exchange 300 index. The result shows that firms reported on a wide range of environmental and social issues. The study, however, discovers a shortfall in both the quality and quantity of information

given. Each firm was reporting 13 sentences of information on the average and even became lower in the oil and gas industry in both quality and volume disclosures. The researchers observe that, whilst companies predominantly were reporting on many social and environmental in the oil and gas industry relating to the environment and employees, other stakeholders such as the consumers and the community were neglected. The practice was termed as being narrow focus and unable to substantiate enough information required for the industry guidelines, which ultimately lead to a decline in the investor assurance in the making of their investment decision.

Jennifer Ho and Taylor (2007) examine the triple bottom line (TBL) disclosure of Japanese and US companies and its determinants. The authors sample fifty largest companies in these two countries in the year 2003 and consider twenty disclosure items under the three categories namely: environmental, economic, and social by using the Global Reporting Initiative 2002 Guidelines. The content analysis method is used to measure the disclosures. The results show that in all the three categories, the extent of the triple bottom line is higher with Japanese companies than with US companies. Also, the results show that the TBL disclosure level is greater with larger companies in the manufacturing sector with lower liquidity and profitability. The authors conclude that non-economic factors are the determinants of the extent of TBL disclosure.

2.7.1 GRI Fundamental Concepts and Framework

GRI reporting principles followed the 2002 sustainability reporting guidelines which are being presented as the "reporting entity, reporting scope, reporting period, going concerned, conservatism, and materiality"(G. R. I. GRI, 2002). The key qualitative attributes posited as the main constituent of GRI reports includes reliability, relevance, comparability, clarity, timeliness, and verifiability. These principles and characteristics were however combined and extended into eleven (11) reporting principles, which are transparency, inclusiveness, completeness, sustainability context, relevance, accuracy, comparability, neutrality, auditability, clarity, and timeliness. The GRI framework provides information about how firms can attain each of these attributes which are sub-divided into four groups and form a hierarchy (Enderle, 2004; GRI, 2002; Woods, 2003; Figure 2.3).

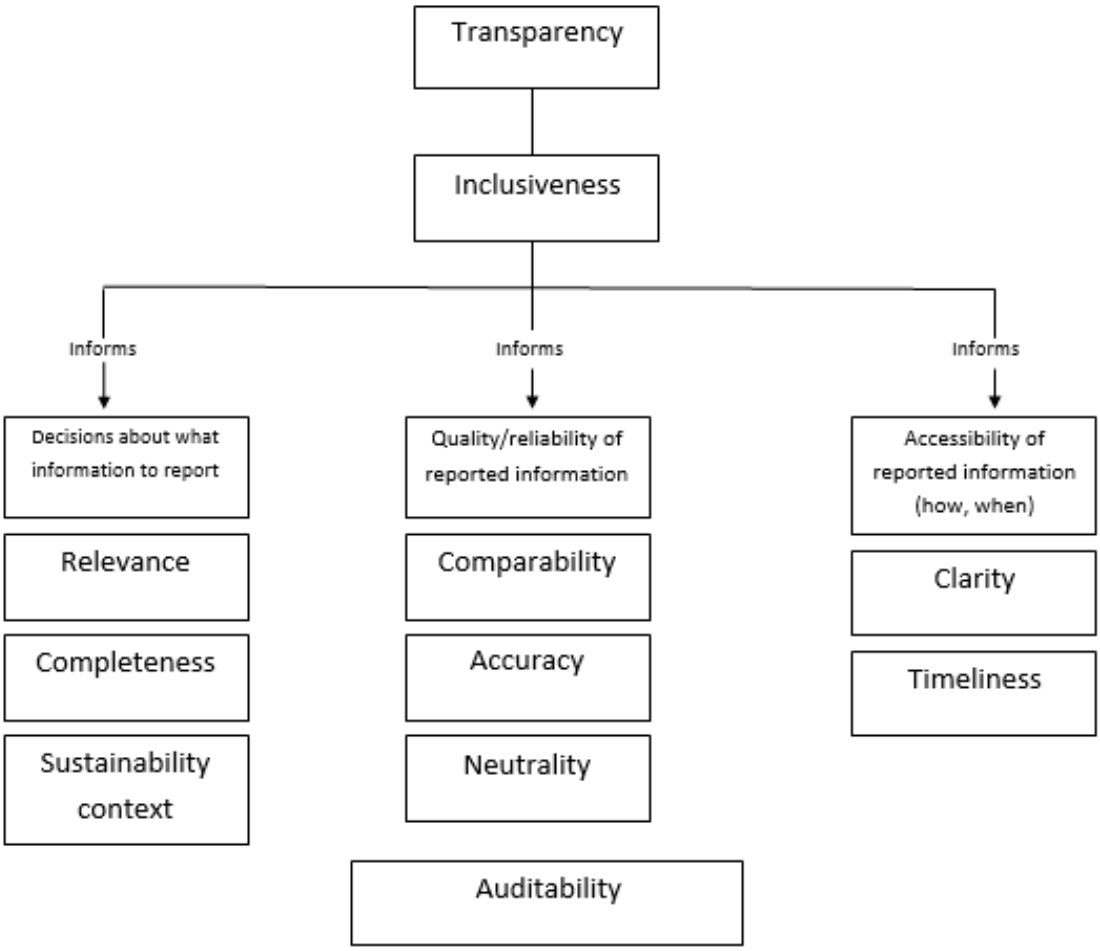

Figure 2.3: GRI Reporting Principles (Woods, 2003)

Transparency, inclusiveness, and auditability provide the basis of the GRI report. Transparency entails complete disclosure of the procedures, processes and assumptions provided in the report. Inclusiveness considers the diverse views, opinions and needs of stakeholders and thus, companies would engage their stakeholders in order to improve report quality. Auditability ensures that information and data are recorded, analysed, compiled and disclosed in such a way that both internal and external auditors can confirm its reliability (Woods, 2003).

Relevance, completeness, and sustainability context address report content. Relevance shows the significance of a specific aspect of information that represents the threshold with which information is determined as sufficiently important for reporting. The completeness principle refers to reporting of comprehensive information required to evaluate the firm's economic, environmental, and social performance. Sustainability

context considers performance information in the larger context of ecological, social and other similar factors in order to ensure that reports are more significant (Fonseca, McAllister, & Fitzpatrick, 2014; Searcy, 2016).

The principles of *accuracy*, *neutrality*, and *comparability* deal with quality and reliability while *timeliness* and *clarity* deal with the accessibility of GRI reports. Accuracy is determined largely by the degree of clarity and detail of the information reported. The principle of neutrality ensures that the GRI reports are non-bias and also that nature of the information reported is important. Comparability considers that sustainability disclosure reports are presented in such a way that enables organisations comparing reports within and across other organisations. Sustainability disclosure reports must be performed regularly to ensure the presentation of timely information with clarity to stakeholders to assist them in making informed decisions (Diouf & Boiral, 2017; Woods, 2003).

2.7.2 Limitations of GRI

Although several authors have discussed the significance and comprehensive characteristics of GRI (e.g. Betianu, 2010; Hussey et al., 2001; Pan, 2016a). However, some pitfalls have been identified with the application of GRI (H. S. Brown et al., 2009; Dingwerth & Eichinger, 2010; Diouf & Boiral, 2017; R. Wagner & Seele, 2017). H. S. Brown et al. (2009) stressed the discrepancy and impracticality of the expectations of the GRI inventors and the consumers. The GRI inventors or developers expect quality sustainability disclosure reporting from firms that adopt the GRI framework. Conversely, larger firms tend to find the standard of the GRI framework inadequately specific while smaller companies find it too complex and demanding. R. Wagner and Seele (2017) highlighted that one of the limitations of the GRI framework is its prevalence and the rigorous exercise of its performance indicators. Despite that GRI principles is a vital guideline for CSR reporting, however, other guidelines and principles such as industry-related IIRC must be included.

Dingwerth and Eichinger (2010) emphasized some hitches related to the implementation of the GRI by companies. They identified conflicting links between the GRI's fundamental principles and its objectives. Similarly, they queried the feasibility

of the GRI's demands for comparability and transparency in sustainability reporting (Dingwerth & Eichinger, 2010). They argued that demanding for transparency may sometimes contradict the company's targets. For instance, a multinational firm that wants to raise its market share, might not report all sustainability disclosures, more specifically those that would pose a negative impact on securing its market value.

Furthermore, Dingwerth and Eichinger (2010) also discussed the issue of comparability of firms' reporting. They argued that corporations could still have variation in sustainability disclosures even though they apply on the same GRI framework and performance indicators. The reason for this could be that certain firms might not have reported on same indicators since all the GRI performance indicators might not be equally relevant to every company. It was also emphasized that establishments might report different environmental and social issues even when they use the same performance indicators. Therefore, the comparison issues remain vague.

2.8 G7 Countries and Sustainability Policy

In 1975, six countries from three different continents namely: the United States, the United Kingdom, West Germany (now Germany), Japan, Italy, and France came together in an alliance to form the Group of Six with the aim of discussing economic concerns, owing to the fact of the recession and inflation that became the upshot of OPEC oil embargo (Webster, 2019). Canada became a member of the group in 1976 and became a yearly conclave of political leaders where ideas are exchanged and an extensive variety of issues relating to security, energy, and the global economy are discussed. The country's membership increased to eight in 1998 and became the Group of Eight (G8) with the inclusion of Russia. However, Russia's membership was suspended from the group in 2014, and officially left the Group of Eight in 2017 for annexing Crimea from Ukraine, which was tantamount to a violation of the sovereignty and territorial integrity of Ukraine as a nation and revert to the G7 nickname (WPR, 2022) The moniker G7 is used to refer to the "Group of Seven" with the members representing over 46% nominal values of the global gross domestic product (GDP) and in 2018, the member countries covered over 60% of the global net wealth with a total $317 trillion (WPR, 2022).

G7 countries are among the ten largest advanced economies in the world and are considered to be the major industrial countries holding annual economic summits and function as a conference for discussion of financial and economic issues among the foremost industrial countries (IMF, 2022). The G7 Environmental Ministerial Conference that was held in June 2017 under the Italian Presidency in Bologna, Italy had in its final reports that the major firms of G7 countries must discuss and share ideas on the way to exemplify Sustainable Development Goals in their performance, becoming promoters of a circular economy, and increase collaboration with stakeholder to tackle the depletion of natural resources and to mitigate climate change (Paletta et al., 2019).

It is imperative to study the G7 countries as a distinctive group in the sustainability reporting, conventional GDP growth analysis, and the energy-sustainable economic developmental growth, owing to their unique and participating roles at a global scale for the future of the planet earth (Menegaki & Tugcu, 2017). Also, being the seven richest nations in the world, G7 countries' decisions and actions unavoidably influence the global financial architecture and economic structure (Menegaki & Tugcu, 2017). The emphasis of the G7 countries after the global pandemic of 2019-2021 is to focus on addressing Climate Change with the intention of launching a new clean, green initiative in catalysing green infrastructure investment and reporting (IMF, 2022). The G7 nations also take a strong interest to reduce the greenhouse emission from renewable energy sources as part of environmental sustainability as Raza and Shah (2018) examine in their study that Germany and Italy have steadily increased their renewable energy electricity consumption fivefold, excluding hydroelectric consumption from the years 2002-2012 with the following data from International Energy Agency (IEA): In 2012, Canada produces 3.2%, Japan produces 4.2%, France produces 4.5%, the USA produces 5.6%, the UK produces 10%, Italy produces 16.3%, and Germany produces 18.9% energy from renewable sources. In terms of population, Table 2.1 shows the data published by WPR (2022) for the G7 countries as of the year 2022.

Table 2.1: World Population Report for G7 Countries (2022)

Country	2022 Population
United State	334,805,269
Japan	125,584,838
Germany	83,883,596
United Kingdom	68,584,518
France	65,584,518
Italy	60,262,770
Canada	38,388,419

The G7 countries in met London in June 2021 to give support to the movement for sustainability reporting practices by banks and companies in disclosing their climate-rated risks exposure and to measure the impact banks and companies are having on the environmental and climate issues, as an approach considered to be germane for the safeguarding of the financial system from the climate change shocks (Reuters, 2021).

2.9 Theoretical Framework

Many theories have been developed to explain the approaches to the practice of voluntary corporate social and environmental disclosure that are also applicable to the practice of sustainability reporting and these theories have been adopted by many researchers for the determinants of reporting across the globe. In the study by Niles and Lubell (2012) on environmental policy research integration regarding how multidisciplinary strategies and synthetic theoretical perspectives are being framed to gain an understanding of relationship between ecological and social systems associated with environmental issues, they discovered that, nowadays, environmental policy theory is about incorporating a wider range of disciplines to fully understand the connections between natural and human systems. They resolved that the occurrence of new environmental challenges with the need to develop a sustainable society will drive future environmental policy research. (Bayoud, Kavanagh, & Slaughter, 2012) in their study shows that various types of theoretical insights are being used to explain the involvement of business organizations in corporate social responsibility activities and sustainability reporting and the rationale behind their refusal (C. A. Adams, Hill, &

Roberts, 1998). These theories include stakeholder theory, legitimacy theory, agency theory, and institutional theory.

2.9.1 Legitimacy Theory

The theory of legitimacy is based on the social contract. It claims that a social contract exists between society and business, which compels a company to act in a socially required manner (Rob Gray et al., 1988). Society is deemed to allow companies to exist while the companies in return are expected to carry out their activities as being by the norms and societal values. Legitimacy is defined as "an output of a dyadic process between business and society such that organizational legitimacy is a negotiated point between the perceptions of society and an organization's decision-makers regarding any issue of concern" (Panwar, Hansen, & Kozak, 2014, p. 856). When the activities of the organizations are incongruent with the expectations of the society, it is then perceived to be a breach of contract (Castelo Branco & Lima Rodrigues, 2006). Legitimacy can be seen as a relative concept in the sense that, it is relative to the societal norms and social system in which the organization operates and the survival of the organization will be at risk if society observes that the organization has flouted its social contract (C. Deegan, 2007). "Legitimation is the process whereby an organization justifies to a peer or superordinate system its right to exist, that is to continue to import, transform, and export energy, material, or information" and it is also defined as the "appraisal of action in terms of shared or common values in the context of the involvement of the action in the social system" (Dowling & Pfeffer, 1975, p. 123).

C. Deegan (2002) postulates that legitimacy theory is deemed to be a systems-oriented theory like other theories, such as stakeholder theory and political economy theory. Gray state that "organizations can only continue to exist if the society in which they are based perceives the organization to be operating to a value system which is commensurate with the society's own value system". A Systems-oriented theory is presumed that society has an influence over an entity and at the same time that entity has an influence over the society, in this view the role of information and reporting regarding the rapport between individuals, groups, organization, and the like are considered to be a central focus (Rob Gray, Owen, & Adams, 1996). The theory stresses that organizations on a continuous basis seek and be sure that the society' perceptions

about the organizations is that they are operating within the ambiance that conforms to the norms of the societies, which means the parties outside the organizations are seeing their activities as being legitimate (Islam Mohammed & Deegan, 2008).

Legitimacy theory explains the behaviour of organizations in developing and implementing voluntary environmental and social reporting of information with the aim of fulfilling their social contract that enables the endorsement of their objectives and existence in a hostile and chaotic environment. The way corporation actions remain legitimate to individuals, groups, institutions, communities and societies at large where it operates is to present voluntary reports on environmental and social information on its website, annual reports or stand-alone reports (Kaya, 2016). As a result of this reporting, an organization is perceived as socially responsible (Maignan, Ferrell, & Hult, 1999). Numerous researchers have used legitimacy theory to elucidate the extent and determinants of sustainability reporting (Bebbington et al., 2009a; C. Deegan & Gordon, 1996; Fernando & Lawrence, 2014; O'Dwyer, 2002a; Tilling & Tilt, 2010; van Staden & Hooks, 2007).

There are two key areas of legitimacy theory according to Suchman (1995): strategic or organizational legitimacy and institutional legitimacy. The strategic or organizational theory explains the procedure in which an organization pursues the endorsement, support or averting of sanction from the society where it operates, therefore, activities of individual organizations are being carried out in a way to guarantee social acceptance as required by the society (Bebbington, Larrinaga-González, & Moneva-Abadía, 2008; Tilling, 2004). In ensuring the organizational legitimacy, Ashforth and Gibbs (1990) explain that a high level of managerial control is expected to superintend the legitimation process, hence, recurrent conflicts between the constituents over the form of legitimation activities and managers are predicted to exist.

On the other hand, institutional legitimacy theory shows how the whole organizational structure has got approval from society at large. Elsbach and Sutton (1992) suggest that organizations that seek approval from a wide set of individuals and groups sometimes encounter a disturbing dilemma that if those organizations strictly adhere to societal norms, they may not be able to repel outside individuals or groups that can provide

approval and support. However, since conformity will produce organizations that are not distinctively different from most others and such organizations may be unnoticed by crucial outsiders and if such organizations openly contravene societal norms, there is a tendency that such may be noticed and outsiders are not likely to give approval and support to organizations that openly defy the accepted standards for behaviour (Elsbach & Sutton, 1992).

Organizational legitimacy is the most applied legitimacy theory in sustainability accounting research (Archel, Husillos, Larrinaga, & Spence, 2009; Bebbington, Larrinaga-González, et al., 2008; Brusca et al., 2018; Comyns et al., 2013; Fernando & Lawrence, 2014; Tilling, 2004). Although organization legitimacy cannot be measured objectively to ascertain its level in any organization, its successful performance and continuity in an organization will reflect its application (Hybels, 1995; Tilling, 2004). Organizational legitimacy can be evaluated by the company's ability to procure and maintain the resources needed for its operations. However, adherence to regulations is germane to organizational legitimacy as it helps in the resources management for the feasibility of an organization. On the other hand, an organization is expected not to be indifferent to the ever-changing needs of society as maintaining legitimacy is concerned. Lanis and Richardson (2013) argue that legitimacy has two phases, which are the explicit regulatory aspect and the implicit social aspect. An explicit regulatory aspect is demonstrated by the need of an organization to abide by the regulations, while the implicit social aspect required an organization to abide by the social norms, therefore, a specific organizational reputation is maintained in the society when an organization is committed to these aspects (Kostova & Zaheer, 1999; Lanis & Richardson, 2013).

2.9.1.1 Empirical Research on Legitimacy Theory in Sustainability Reporting Practices

Some of the researchers use the legitimacy theory to describe the processes undertaken by companies to reclaim their legitimacy anytime there is an aggressive move against their legitimacy position. O'Donovan (2002) postulates that legitimacy theory can be strategically used by companies to have a competitive advantage and headway over their competitors by disclosing adequate information. Companies can increase or decrease their sustainability disclosures in their annual or standalone reports as a form

of legitimising their operations to the community (De Villiers & Van Staden, 2006; C. Deegan, Rankin, & Tobin, 2002).

Aerts and Cormier (2009) studied 158 firms from the United States and Canada using a direct measure of environmental legitimacy. Their finding indicated that environmental legitimacy is critically and certainly affected by the quality of the economic-based sections of annual report environmental disclosures and by reactive environmental press releases, but not largely affected by proactive press releases.

De Villiers and Van Staden (2006) examine the environmental reporting of over 140 companies that are listed on the Johannesburg Securities Exchange (JSE) in South Africa for over a period of nine years (1994-2002), which comprises of Top-100 industries and Mining companies with the aim of using legitimacy theory to predict the increase or decrease in the level of environmental disclosures. Their findings show that companies decrease specific disclosures when they recognise them to be possibly more damaging than being helpful to maintain legitimacy. They affirm that, companies change the extent and type of their environmental disclosures when they notice there are changes in societal expectations, to keep up with their legitimate status with some powerful stakeholders.

van Staden and Hooks (2007) assess the relationship between companies' environmental disclosure and their responsiveness. They examine companies' environmental reporting from different resources, which include stand-alone environmental reports, annual reports, and company websites to evaluate the companies' proactive method towards accomplishing legitimacy. Environmental responsiveness was defined by Van Staden and Hooks to be "a measure of an entity's sense of responsibility for its environmental impact and includes the development of strategies, policies, objectives and targets to address this responsibility" (p. 198). They use the ranking of 2002 environmental responsiveness from the results of the survey carried out by the Centre for Business and Sustainable Development (CBSD), which has been a yearly survey since 1999 on New Zealand companies to assess the environmental responsiveness. Van Staden and Hooks considered the results of the survey as valid and reliable because the information was collected directly from an accountable officer of

each company, which has professional expertise in environmental issues. Their findings show that a positive correlation between environmental disclosures and environmental responsiveness exists, which indicates that responsive companies take a proactive method to organizational legitimacy.

O'Donovan (2002) examines three large companies in Australia that were leaders in environmental information disclosers from the year 1983 to 1997 by interviewing six senior managers of each of these companies to find out the possible correlation between a potential legitimacy threat and an environmental and other related issues such as the purpose and the choice of legitimacy strategies and the company annual reports' disclosures. The investigation of O'Donovan provides empirical evidence that the decisions of managers on the disclosures of environmental issues in the annual reports can be explained by the legitimacy theory. The results further classified the degree of the environmental issues into three low, medium, and high. O'Donovan explains that the low significant environmental issues would not be deemed to be a legitimacy threat as there would be no disclosures and this would not warrant a need to use any strategies. Whereas for the environmental issues that are medium and high significance and seeking to achieve legitimacy would likely to adopt strategies to alter societal perception or gain conformity to societal expectations. In conclusion, O'Donovan sees the decisions of companies on environmental disclosures and to adopt strategies are being made on the premise of propelling a legitimate and positive corporate image, therefore, the companies' reactive approach is becoming a potential legitimacy threat to environmental issues.

Brusca et al. (2018) investigate the events for the implementation of sustainability and integrated reporting at universities by critically evaluating the reason and the way the new reporting models have been implemented. Their findings reveal that disclosure and improvement of sustainability reporting in the university is seen to contribute to increasing the ranking of the university, which in turn leads to image and reputational enhancement of the university for all its stakeholders. This establishes the legitimisation impact of the sustainability reporting on the value maximisation of an organization. Legitimacy theory as a value-oriented theory, encourages the incorporation of sustainability reporting practices into business strategies and in good turn, the stakeholders can evaluate these strategies empirically to properly legitimize the

organizations. It is expected that the organization value system should be corroborated with the value system of the entire society where the organization has its operations, therefore, if there is any inconsistency between the two value systems, legitimacy gap would emerge, which weaken the organization's legitimacy and become a potent threat to its survival (Comyns et al., 2013; Fernando & Lawrence, 2014; Lanis & Richardson, 2013). Legitimacy gap is defined as "the difference between societal expectations (what ought to be) and societal perceptions of current (what is) business behaviour" (Panwar et al., 2014, p. 860). In a nutshell, legitimacy gap arises when the activities of the organization cannot satisfy the expectations of the society. Organizations, therefore, are expected to make disclosures that satisfy their stakeholders' needs to develop and sustain good relationship that stimulates their operational survival. Anytime there is decrease in the level of organizational legitimacy, there will be increase in the operational risk of the organization as the continuity of its operation will be threatened. Hence, added value will be required from the organization by the society to match up with the cost that the society carries due to the existence and activities of the organization in the society where it operates. Sustainability reporting, therefore, should provide the relevant information that the society needs as a reflection of the fulfilment of organization's responsibilities towards its society.

However, legitimacy theory alone is not enough to explain the motives for reporting. While the theory explains the quest for legitimacy as the key aim of sustainability reporting, it falls short of fully explaining the role of stakeholders or differentiating the stakeholders that may have extra influence. Some researchers explain that legitimacy theory does not explain the role that institutional values, beliefs and norms may have to play in an organization (Hoffman, 1999; Jackson & Apostolakou, 2010; Nikolaeva & Bicho, 2011). In view of this, legitimacy theory must be used in conjunction with stakeholder and institutional theories to provide a broad explanation (C. A. Adams & Whelan, 2009; C. Deegan & Blomquist, 2006; Rob Gray, Kouhy, & Lavers, 1995b).

2.9.2 Stakeholder Theory

Stakeholder Theory has become a guide to the way a company reports its business activities and also influences the company's approach to social responsibility(Rob Gray

et al., 1995b). According to Bhaduri and Selarka (2016), stakeholder theory was initially related to the idea of corporate social responsibility disclosure in the 1960s and 1970s, which led to the new concepts being added to the literature on corporate social responsibility and environmental disclosure in the management of companies. Stakeholders are defined by Freeman as "those groups without whose support the organization would cease to exist". This includes shareholders, customers, employees, the government, creditors, suppliers, and society as a whole. Rob Gray et al. (1996, p. 45)declare that the frontier may be extended beyond communities, employees, customers, and the state to include competitors, suppliers, foreign governments, future generations, and even some forms of artificial intelligence.

Cormier, Ledoux, and Magnan (2011) argue that the effort of organizations to be transparent and accountable toward their stakeholders put a demand on the organization to make sustainability reporting and give more information about sustainability issues in their annual report, webpage, or stand-alone report. Mitchell, Agle, and Wood (1997) describe stakeholders as individuals; groups, communities, organizations, institutions, societies, and even the natural environment are often assumed to qualify as actual or possible stakeholders. Companies interact with diverse stakeholders in their operations and this interaction produces greater risk for the company that put a demand on the management to be as detailed as possible in reporting. Usually, the content of the reports reflects the stakeholder's influence on the company's strategy and the allocation of its resources(Jones, 1995). The frequent incompatibility among stakeholders compels the company to focus on those who have the greatest salience (Fiss & Zajac, 2006; Freeman, 2010; Jones, 1995). The uniqueness of each stakeholder allows the manager to prioritize the stakeholder relationships to achieve certain objectives. Mitchell defines stakeholder salience as "the degree to which managers give priority to competing stakeholder claims and to whom and to what managers actually pay attention". They further argue that classes of stakeholders can be made known by their attributed possession of one, two, or all these three attributes; (1) the legitimacy of the relationship of the stakeholder with the company, (2) the urgency of the claim of the stakeholder on the company, and (3) the power of the stakeholder to influence the firm (Mitchell et al., 1997).

C. Deegan (2002) posits that various scholars that make use of different aspects of the theory for diverse purposes have made the theory to become puzzling. The literature accounts for different definitions for ‘stakeholder’, ‘stakeholder model’, ‘stakeholder management’ and ‘stakeholder theory’(Evans et al., 2017; Fassin, 2009; Garvare & Johansson, 2010; Mitchell et al., 1997).

2.9.2.1 Stakeholder Theory and Diverse Outlooks

Freeman (2010) explains that stakeholders perceive corporate social responsibility as merely business operations addendum that should be considered when companies can afford it. Freeman views this opinion as inappropriate and that, it is pertinent for companies to give due consideration to corporate social responsibility as complex interconnections exist between social and economic forces, as all parts of these forces would predict the success of the business.

(Ullmann, 1985) examines the power of the stakeholders relative to corporate social responsibility and comes up with a conceptual model that is three-dimensional namely: strategic posture, economic performance, and stakeholder power. The adoption of the model is to explain the relationships that exist between social and economic performance and social disclosure. In Ullmann’s argument, he declares that a stakeholder’s power would impact the management of the company if it is positively correlated to the degree of stakeholder’s control over the resources that the company required. The stakeholders that are in control of critical resources, which are required for the survival, continuity, success, and profitability of the company will have their request addressed, which will result into a positive correlation between social disclosure and performance and stakeholder’s power (Roberts, 1992).

However, even though stakeholder theory has helped to recognise and prioritise stakeholders for sustainability reporting, it fails to provide a robust explanation as to why sustainability reporting is essential. The theory emphasized the stakeholders’ expectations and makes this the prime motivation for reporting. It could be explored that these expectations are tantamount to legitimacy theory(Phillips, 2003). Meanwhile, these expectations are just for only a selected group of stakeholders who are chosen on the basis of their influence, legitimacy and the urgency of their claim (Mitchell et al.,

1997). The stakeholder theory is grouped into two notable groups, which are moral or normative (ethical) and 'Positive' (managerial) perspectives (Belal & Owen, 2007; C. M. Deegan, 2013; Rob Gray et al., 1996).

2.9.2.2 Normative Perspective of Stakeholder Theory

The normative or ethical perspective of stakeholder theory indicates that every stakeholder has the right to be treated fairly by an organization regardless of the stakeholder power, which demands consideration for all its stakeholders (Fernando & Lawrence, 2014). Apparently, the ethical perspective is based on the Critical Accounting Theory (CAT) which is widely predicated on the approach to accounting research that centres on the particular accounting method or the role of accounting that must be employed, rather than considering the key powerful stakeholders that are in control of providing critical resources that the organization requires (Fernando & Lawrence, 2014).

Hasnas (1998) argues that the ethical perspective entails the managers of an organization to manage the business for the stakeholders' benefit, irrespective of whether leads to enhanced financial performance. An ethical perspective allows the organization not to be seen as a mechanism that drives the shareholders' wealth maximisation, but, instead, as the one that meets all the stakeholders' expectations (Fernando & Lawrence, 2014).

2.9.2.3 Positive Perspective of Stakeholder Theory

The positive or managerial perspective of stakeholder theory, on the other hand, affirms that the in an organization, managers try to meet the expectations of stakeholders that control the resources that are critical to the needs of the organization, and as a result of this, the organization becomes accountable to its economically powerful stakeholders, instead of all the stakeholders as demanded by the ethical perspective. (Fernando & Lawrence, 2014). Stakeholder involvement or activism is believed to be of utmost importance to the organization from a managerial perspective, which can affect the business organization in a positive or negative way (Murray & Vogel, 1997). The managerial perspective has one main challenge of how organizations are going to

determine whom they are responsible for and the extent to which the responsibility will entail (Fernando & Lawrence, 2014).

Stakeholder theory gives a good rationale for organizational disclosures and sustainability reporting to develop mutual relationships with their stakeholders. An organization is responsible for its activities for all its stakeholders and considering all their interests in the implementation of their activities. The stakeholder theory ensures that stakeholders become the crucial purpose for sustainability reporting practises in any organization.

2.9.3 Institutional Theory

Institutional Theory was developed in the late 1970s in describing the environmental and societal dependence of business organizations (DiMaggio & Powell, 1983). The theory suggests that organizations operate in an institutional environment that accommodates other institutions. As organizations are aiming for survival as one of their business objectives and their behaviour for survival are influenced by their surrounding environmental and societal institutions, Institutional Theory, therefore, becomes a framework that stipulates the explanation through which researchers can recognize and examine the influence that promotes business survival and legitimacy of organizational practices, together with the factors such as social, norms culture, tradition, history, environment, and regulation (comprising the legal environment), along with economic incentives, at the same time as recognizing that resources are also crucial (Glover, Champion, Daniels, & Dainty, 2014).

Institutional Theory evaluates how external pressures can influence an enterprise to adopt the organizational practice and it also explains the impact that the changes in technological advancements, social values, and regulations can have on the decisions concerning ‘green’ sustainable development, whilst demonstrating how changes in regulatory structures and social norms can lead to changes in sustainability reporting practices, (Ball & Craig, 2010; Glover et al., 2014; Sarkis, Zhu, & Lai, 2011). The theory focuses on the shaping impact of social pressure by mostly downplaying managerial agency, and proving that organizations copy the practices of each other, which become widely accepted, as the approach tends to depart from the consideration

of the purposely initiative outcome of the managers on the organizational activities (Bebbington, Higgins, & Frame, 2009b) The study of Institutional Theory has been centred on the approach organizations employed to ensure their survival and legitimacy among their surrounding societal and environmental institutions. Therefore, organizations would have to stick to the prevailing norms within the institutional frameworks in their surrounding as well as conformity to the appropriate rules and structure to attain these levels. However, an organization is exposed continuously to economic, environmental, and social pressures within the institutional framework that subsequently becomes the impetus that drives its sustainability reporting practices. The significant influence that institutional pressures have, can establish the associated decision and organizational strategy that would make the process of legitimising the corporate practices from the perception of the stakeholders who are applying these pressures (DiMaggio & Powell, 1983; Glover et al., 2014).

Institutional Theory has been researched for its importance to sustainability reporting practices in comparison to the environmental aspect. As the theory postulates firms are economic units that carry out their business activities within a group of institutions, which impact the firms' social behaviours. The institutional framework, therefore, defines and controls the level of social interactions between the firm and its stakeholders. It is traditionally related to the way organisations and different groups, guarantee their positions and legitimacy through conformity to the rules (such as governmental agencies, regulatory structures, courts, laws, agencies, professions, and scripts including other cultural and societal practices, which exert conformance pressures) and norms of the institutional environment (Glover et al., 2014). In addition, the theory is being used to explain the way changes in technological advancements, social values, and regulations impact on the decision-making process for green sustainable activities and environmental management (Ball & Craig, 2010; Glover et al., 2014; Lounsbury, 1997; Rivera, 2004).

The Institutional Theory holds its relevance to sustainability reporting practices and focuses on three unique factors that drive the relationship between an organization and its environment, which lead to an isomorphism approach, which is coercive, normative, and mimic factors (DiMaggio & Powell, 1983). Coercive pressure happens when the authoritative parties or regulating bodies that have the oversight authority over the

organization within the scope of activity of the organization exerted their power of influence to dispel punishments because of non-compliance to the rules and regulations or offer applicable rewards for compliance. Coercive isomorphism brings a change in organization's processes consequence of the pressures from stakeholders that the organization depends on for survival. The regulatory bodies mount pressure on the organization under their control to implement practices that fulfil their expectations or failing to comply will jeopardise the organization's survival. Coercive isomorphism exerts pressures on the dependent organizations by the regulatory bodies and by the societal cultural expectations where the organizations operate. Coercive pressures are so vital in propelling environmental management and hence sustainability reporting (Glover et al., 2014). An example of coercive isomorphism is government agencies, which are powerful institutions that can coercively influence the enterprises' actions through fines, barriers, and other punitive measures (Sarkis et al., 2011). Previous researchers show that coercive pressures are very important to drive and promote the practice of voluntary environmental management through the agency of the governments (Kilbourne, Beckmann, & Thelen, 2002; Rivera, 2004).

Normative pressure occurs when the legislative and social groups exerted their influences on organization. Normative factors involve that the organizations abide by the traditions and social values obtainable in the surrounding society and environment of the organizations. Normative isomorphic drivers bring firms into conformity to be perceived as having organizational legitimate activities and place social normative pressures to explain among the enterprises, the environmental management practices (Ball & Craig, 2010). Normative pressures come from diverse norms and values that enable an organization to implement certain practices and these norms and values occur from certain field that has been professionalized and manifest into pressures in which institutions adopt processes to be a cognitive base for occupational autonomy (DiMaggio & Powell, 1983). Professional networking groups provide the business organizations with the appropriate guidelines and exposure to participate in sustainability reporting practices and providing adequate education and training to the organizations' key decision makers. Normative social pressures in the developed countries such as the G7 countries (Canada, Germany, France, Italy, Japan, UK, and USA) are observed to be mostly originated from the ecological thinking and ethical values of the consumers (Ball & Craig, 2010). Earlier studies show that in developing

countries, consumers have gradually heightened environmental awareness, which has influence them to start opting for green products (Harris, 2006).

Mimic factors happen when firms replicate the activities of successful competitors in the industry, to reproduce the pathway to success and thus legitimacy (Sarkis et al., 2011). The factors create the tendency for business firms to imitate the sustainability reporting practices of other business enterprises that are operating in their environment even when the other business enterprises whose reports are being modelled may not be aware of the influence their organization are having over others. Unerman and Bennett (2004) explain that memetic isomorphism allows firms to seek improvement in their operations by replicating the actions of other competitors who are successful in their business operations by adopting their isomorphic process. Meanwhile, firms choose to replicate the activities of successful counterparts to minimise the possibility of the uncertainty when they are introducing a new process or practice, therefore, mimetic isomorphism can be used as a legitimacy tool, where firms can mimic the activities of other firms to demonstrate their legitimacy in the society (DiMaggio & Powell, 1983).

Glover et al. (2014) explain that while the Institutional Theory has a positive impact on the firm as regards its stability, survival, and institutional legitimacy, there is a long-term negative impact that cannot be ignored concerning its social legitimacy (Cuadrado-Ballesteros et al., 2017). The negative effect being predicted by Institutional Theory is about the passive opinion that a firm pursues a mimetic method. As a result of this, organization can decide to follow the best practices of sustainability reporting being practiced by the firm's counterparts. Despite pursuing a harmonised standard of reporting, the theory has been heavily condemned for ignoring the quality of information provided in the report, because organization always seek to replicate the general reporting frameworks, which are supposed to be the best practices without any recourse to the sustainability reporting practices and activities that are specific to the organization. There is institutional isomorphism, which causes organizations to face pressures from their contemporaries and from cultural and social expectations as they follow the path of imitation, which mostly worsens the corporate social legitimacy (Cuadrado-Ballesteros et al., 2017; Glover et al., 2014; Samudhram et al., 2016).

Mimic factors explain that organizations replicate the practices adopted by the more successful competitors in their line of operation on the premise that the process enable the organization to have sustainable path and maintain legitimacy like other organizations that are successful, whereas, the process is not always the case (Ball & Craig, 2010; DiMaggio & Powell, 1983; Glover et al., 2014). The report that is prepared through mimetic isomorphism always ignore the elements of interdependent sustainability reporting in such a way that will show the correlation between the environmental, economic, and social activities, which the relevant institutions have implemented. Institutional sustainability reporting can result in an overloading information due to additional information that is supposed to be the institutional standard best practice. Meanwhile, the additional information may be explicitly unrelated to the institution and would not affect the decisions of the stakeholders, hence, the report would not be meaningful and fully understandable to the stakeholders, rather it could be a misleading report (Cuadrado-Ballesteros et al., 2017; Samudhram et al., 2016).

2.9.4 Agency Theory

The shareholder value maximisation on the view that organisations are answerable only to their shareholders can be extended to explain the reason for organisations to invest in sustainability, making sustainability or corporate social responsibility simply the upshot of agency problems within the organisation, and this is based on agency theory (Jensen, 1986; Jensen & Meckling, 1976). Agency relationship is defined as " a contract under which one or more person (the principal(s) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent" (Jensen & Meckling, 1976). They further explain that the fundamental principal-agent relationship is confronted with major issues in the essence that, if both agent and the principal in the relationship are aiming to maximise their value, then there will be a good cause to consider that the agent will always act at variance to the best interests of the principal (Jensen & Meckling, 1976). Furthermore, the agency problem is deemed to worsen when there is information asymmetry and the shareholders seek to control the activities of the managers through bonding costs and supervision, hence, in terms of agency theory, voluntary reporting or disclosure can therefore, be seen as one of the bonding costs that the managers incurred to reduce their

agency costs (Jensen & Meckling, 1976). As a signal to shareholders and to convince the external users, managers can use the voluntary disclosure as acting in an optimal way(Jensen & Meckling, 1976; Watson, Shrives, & Marston, 2002).

Many researchers in their findings see that corporate social responsibility is determined by agency problems (Bénabou & Tirole, 2010; Krüger, 2015; Liang & Renneboog, 2017). Krüger (2015) explains that corporate social responsibility has become part of the company's business activities in the sense that it benefits managers at the expense of shareholders.

2.9.5 The Basis for a Combination of Four Theories

The three theories previously explained (Legitimacy, Stakeholders, Institutional and Agency) have tendency to slightly provide overlapping and complementary perspectives in explaining sustainability reporting (Islam Mohammed & Deegan, 2008). Legitimacy theory emphasises on the expectations of the society. This perspective indicates that sustainability information is disclosed by the company to associate its social performance with the expectations of the society to legitimize its continuous existence. In stakeholder theory, the managerial perspective centred on expectations of some key stakeholders in which sustainability information can be reported to gain and sustain the support of these key and powerful stakeholders as recognized by the management of the company in ensuring the continuous existence of the company. The basis for institutional theory is on organisational practices. It considers what the company perceives to be legitimate in the institutional environment, which can be adopted by the company in connection to normative, coercive, and mimetic pressures, which are the outcome of the regulatory institutions in the country of existence, in conformity with the other organisations that are operating in the same area. In addition, institutions theory explains the pressures/factors that are external to the company (normative, regulatory, and cognitive institutions) and so the legitimacy theory, which society uses to induce the company. On the other hand, stakeholder theory evaluates both external and internal factors that pressure the company to reporting sustainability information. While agency theory engenders firm to disclosure more sustainability information in the best interest of their principals.

Hence, combining multiple theoretical perspectives is regarded as enrichment to the reasoning of sustainability reporting as agued by other researchers who examined legitimacy, stakeholder, institutional, and agency theories and concluded that they are complementary in nature (Cormier et al., 2005; Fernando & Lawrence, 2014; Rob Gray et al., 1995b; Islam Mohammed & Deegan, 2008).

2.10 Contemporary Issues on Sustainability Reporting Practices

Sustainability reporting has been an issue that has cut global attention as corporation and other business organizations have begun to start seeing the reality of climate changes and the effect of environmental degradation in our world of today. According to Dingwerth and Eichinger (2010) the constant problems that confront many companies in sustainability reporting practices can be connected to the lack of reporting framework standardization, how and when to make disclosure on sustainability related information. Other researchers also share similar view that lack of standardized structure of sustainability reporting makes the comparison of reports difficult as companies are at liberty to choose how to create their sustainability reports and adopt their presentation method of convenience (Ali, Frynas, & Mahmood, 2017; Tagesson, Blank, Broberg, & Collin, 2009; Zrnić, Starčević, & Crnković, 2020).

2.10.1 Sustainability Reporting in the Business Segment

There are different guidelines and improved methods that many business corporations are using to create sustainability reports, albeit, the majority of the reports are not giving satisfactory measure in addressing the needs of large stakeholder groups of companies as they lack strong connection between financial reporting, environmental management, and climate change (Atkins, Atkins, Thomson, & Maroun, 2015). It is expected that sustainability reporting should produce information that will translate to a change driver for it to have positive impact in the goal of the company, else it will a mere image laundering and fulfilment of legal requirement (Atkins et al., 2015). However, while there is indication that organizations have started considering and reporting on sustainability issues, there is a supposed difficulty relating to what ‘sustainable value’ these organizations are creating. This is because, the concept of value in many organizations is much more encompassing and must be separated from the concept of monetary value, as there is other value beside that of money (Dumay, Guthrie, &

Farneti, 2010). van der Lugt, van de Wijs, and Petrovics (2020) explain that the diverse players in the information value chain emphasizes a possible role for policymakers as to setting unambiguous requirements, which should ordinarily happen in partnership with standard setting bodies, in ensuring quality disclosure and harmonization. It has become imperative not to question the role of various players in sustainability reporting issues, but to draw attention to the gaps that exist between disclosure requirements, reporting frameworks, reporting practice and the market realities (van der Lugt et al., 2020).

In another development, business investment decision and sustainability reporting are sacrosanct, according to Jebe (2019) who examine the convergence of financial and environmental, social, and governance (ESG), the study shows that sustainability reporting is seeing as an effort to bring improved environmental, social, and governance (ESG) practices to mainstream business. However, this passage to mainstream is impeded by the disconnect between the financial and ESG information as both reporting streams use the notion of materiality to structure firms' disclosure obligations (Jebe, 2019). The study, therefore, concludes that the reason for the sluggish progress of the sustainability movement to date is that there can be no significant progress if sustainability is not aligned with the investor interests (Jebe, 2019)

Hobbs and Jostrom (2014) examines the survey conducted by PricewaterhouseCoopers (PWC) and published in 2014 on a various combination of institutional investors to gain a deeper understanding as to whether issues of sustainability are affecting investors' decisions in relation to their investment strategies and practices. The study found that institutional investors adjudged sustainability issues such as climate change and corporate social responsibility are crucial for decision making in respect of corporate and shareholder engagement, investment strategy and poxy voting. Over 84% of institutional investors that took part in the survey affirmed that they would remain resolute with the consideration of sustainability issues in their investment decisions in years to come. Also, the PWC survey found out that, 73% of the investors consider risk mitigation as the compelling force for investors when making investment decisions to give due consideration to sustainability issues, while the second and third most famous reasons for employing sustainability issues are the avoidance of companies with

unethical behaviour and enhance returns with 55 percent and 52 percent respectively (Hobbs & Jostrom, 2014).

2.10.2 The Trend Global Developments

KPMG conducted a global survey in 2015 on corporate responsibility (CR) reports of the 250 world largest companies by revenue (G250) with focus on the carbon information and the top 100 firms (N100) from 45 countries in the world for global corporate responsibility reporting trends by analysing their sustainability reports (corporate responsibility reports), annual financial reports or integrated reports, and company websites and the results of the surveys were presented in three parts namely: accounting for carbon, quality of corporate responsibility reporting between the G250, and global trends in corporate responsibility reporting among the N100 (King et al., 2015)

The result of the surveys shows the inconsistency in sustainability (carbon and environmental) reporting with the G250 and this hampered the comparability of carbon performance and among the G250, the most likely companies to report sustainability (carbon effect) are from Europe, while companies from the United States, China and other Asia Pacific countries are the least probable to report (King et al., 2015). The other part of the report of the KPMG's survey that centred on the quality of sustainability reporting amongst the G250 did not show any complete improvement since 2013, beside the topic of risks and corporate responsibility trends despite the emphasis made on the quality of sustainability reporting by the Global Reporting Initiatives in their newest G4 version as at that time (King et al., 2015).

The study conducted by Comyns and Figge (2015) on greenhouse gas reporting shows that, in spite of the growing emphasis on the issue of climate change globally, the companies were still reporting poor quality information during the period of study. Consequently, the results of the study have shown that adopting guidelines alone is not a proof of better-quality reporting and that the quality of information on sustainability reporting in companies changed considerably. In their conclusion, Comyns and Figge (2015) advocate for additional regulation is required to improve the quality of information in the 'credence' and 'experience' categories and that the third party

assurance as one of the specific information should be included as an improved mechanism to augment the quality of information.

The 26th Climate Conference of the Conference of Parties (COP26) that was organised by the United Nations Framework Convention on Climate Change (UNFCCC) in Glasgow, Scotland from October 31 to November 12, 2021, focused on climate change related growing security threats as the reports shown that the ongoing actions and policies that aimed at reducing the greenhouse gas emissions (GHG) and the limitation effects of global warming are not efficient enough. According to International Panel on Climate Change (IPCC) special reports, which demands an urgent attention on the rising problems of the climate change to avoid snowballing into other uncontrollable spiral threats as the reports listed some of the rising problems to be dangerous weather events and disasters, unpredictable prices and provision of food, trans-boundary water management, the growing conflicts and livelihood insecurity and illegal and unrestrained migration, sea-level upsurge and coastal degradation, unplanned effects of climate policies adaptation and mitigation, as the future of the generation to come and the level of the loss the natural ecosystems of biodiversity that is currently functioning on our planet earth is contingent to this (Gołębiowska, Jakubczak, Prokopowicz, & Jakubczak, 2021). The latest report from International Panel on Climate Change shows that a lot of the observed changes in the climate are remarkable for the last thousands of years, which include, continuous sea level rise, whereas, the significant reduction in greenhouse gases (GHG) and emission of carbon dioxide (CO2) would help to limit the climate change that is already in existence and bring about the emergence of air quality as an outstanding benefit (Gołębiowska et al., 2021)

The International Financial Reporting Standard (IFRS) has agreed to form the International Sustainability Standards Board (ISSB) during the COP26 climate conference that will be saddled with the responsibility of creating a single set of standards that will meet investors information needs as the investors are progressively focused on sustainability and seek for clearer and comprehensive standardised information from companies on social, environmental, and governance risks, which affect impact on the value of their business (O'Dwyer, 2021).

Review of Pertinent Literature Contributions

Authors – (Year)	Title	Publication	Country	Comments
Bewley, Kathryn Li, Yue (2000)	Disclosure of Environmental Information by Canadian Manufacturing Companies	Advances in environmental accounting & management	Canada	The study empirically analysed factors associated with the environmental disclosures by Canadian manufacturing firms in their 1993 annual reports. They discovered that disclosure of financial information on corporate environmental impact is controlled less by voluntary disclosure factors than its general disclosure. The drawback of the approach used in the study is that it only considered environmental disclosures and not involve social disclosures. The disclosures are derived from one country-specific institutional context.
Buhr, Nola Freedman, Martin (2001)	Culture, institutional factors, and differences in environmental disclosure between Canada and the United States	Critical Perspectives on Accounting	Canada and USA	The study investigates the impact of institutional and cultural factors in reporting of mandatory and voluntary environmental disclosure in Canada and US. The datasets were between year 1988 and 1994 using content analysis of annual reports, environmental reports, and security exchange reports. Study outcome shows that the disclosure reported by Canadian companies increased more intensely than the US firms, which was originally greater. This can imply that Canadian culture and institutional structure is more favourable in generation of environmental disclosure than US counterparts.
Gray, Rob Javad, Mohammed Power, David M Sinclair, C Donald	Social and environmental disclosure and corporate characteristics: A research note and extension	Journal of business finance & accounting	UK	This article studied social and environmental information disclosure of large firms using data from the annual reports. The dataset was collected from the database of the Centre for Social and Environmental Accounting Research

(2001)				consisting of the quality level of a content analysis of the social and environmental disclosures in the annual reports of the topmost 100 UK firms. The following disclosure factors were analysed; environmental, community, employee, and customer disclosures.
Brammer, Stephen Pavelin, Stephen (2006)	Voluntary environmental disclosures by large UK companies	Journal of Business Finance & Accounting	UK	The article examines the patterns in voluntary environmental disclosures among some large firms in the UK. Six indicators of the quality of corporate environmental disclosure were applied: disclosure of an environmental policy; existence off board-level responsibility for environmental matters; the description of environmental initiatives; reporting on environmental improvements; setting of environmental targets; and environmental audit or assessment. The authors findings shows that larger and less indebted firms with dispersed stakeholders would significantly make voluntary environmental disclosures more than smaller firms with huge debt. They also recognized that the quality of disclosures is directly associated with firm size and corporate environmental impact.
Cho, Charles H Patten, Dennis M (2007)	The role of environmental disclosures as tools of legitimacy: A research note	Accounting, organizations and society	USA	The study tests for discrepancy in the application of monetary and non-monetary concepts of non-litigation related environmental disclosure. The results show that the use of non-monetary and monetary components of the non-litigation related environmental disclosure differs across groups. Generally, their findings support existing literatures that firms use disclosure as a legitimizing tool.

Jennifer Ho, Li-Chin Taylor, Martin E (2007)	An empirical analysis of triple bottom-line reporting and its determinants: evidence from the United States and Japan	Journal of International Financial Management & Accounting	USA and Japan	The paper studies the triple bottom-line (TBL) disclosures of 50 largest firms from the U.S. and Japan. Twenty criteria to assess the quality of company's economic, social, and environmental disclosure were developed. Disclosure information was observed in stand-alone reports, annual reports, and special website reports. This approach was useful and improves sustainability reporting as it comprehensively considers diverse CSR disclosure areas and extensively examine various disclosure approaches.
Montabon, Frank Sroufe, Robert Narasimhan, Ram (2007)	An examination of corporate reporting, environmental management practices and firm performance	Journal of operations management	USA and Non-USA	The article investigates environmental management practices using an innovative data source from forty-five corporate reports and analyse the relationships between firm performance and environmental management practices. The authors discovered that positive and significant relationships exist between environmental management practices and firm performance.
van Staden, Chris J Hooks, Jill (2007)	A comprehensive comparison of corporate environmental reporting and responsiveness	The British accounting review	New Zealand	The study assesses the relationship between companies' environmental disclosure and their responsiveness. They examine companies' environmental reporting from different resources, which includes stand-alone environmental reports, annual reports, and company websites to evaluate the companies' proactive method towards accomplishing legitimacy. Their findings show that a positive correlation exists between environmental disclosures and environmental responsiveness which indicate that responsive companies take a proactive method to organizational legitimacy.

Clarkson, Peter M Li, Yue Richardson, Gordon D Vasvari, Florin P (2008)	Revisiting the relation between environmental performance and environmental disclosure: An empirical analysis	Accounting, organizations, and society	USA	The study focuses on measuring environmental disclosure quality using an environmental proxy. The authors followed GRI to construct their own scoring model which comprises of 95 CSR items that reflect the GRI qualitative framework. The disclosed items can relatively match with the GRI qualitative framework, hence, better reflecting the CSR information quality.
Aerts, Walter Cormier, Denis (2009)	Corporate legitimacy and corporate environmental communication	Accounting, organizations, and society	US and Canada	This article examines the impact of annual report environmental disclosures and environmental press releases as legitimation tools. The study measures the following factors: environmental information quality, pollution abatement; laws and regulations, land reCorporatetion, sustainable development, and environmental management. Their findings show consistency with prior studies and results is comparable across companies and can be replicable by different researchers.
Freedman, Martin Jaggi, Bikki (2009)	Global warming and corporate disclosures: a comparative analysis of companies from the European Union, Japan and Canada.	Sustainability, environmental performance, and disclosures	European Union, Japan and Canada.	The chapter assesses disclosures extent of global warming of firms from the European Union, Japanese and Canadian firms using Content analysis. The datasets used in the study is from, annual reports, environmental, social and sustainability reports, websites disclosures and questionnaire developed by the Carbon Disclosure Project from these countries. The study outcome indicates that the global warming disclosures from EU firms is significantly less than firms from Canada or Japan.

Kolk, Ans Perego, Paolo (2010)	Determinants of the adoption of sustainability assurance statements: an international investigation	Business Strategy and the Environment	Fortune Global 250 companies)	The study focuses on understanding of institutional factors from various countries that could be useful in adoption of sustainability assurances statements among an international firm. Their findings shows that corporations in countries with weaker governance administration regime and who are more stakeholder-oriented would tend more to adopting sustainability assurance statement. Additionally, they also identified that countries where sustainable corporate practices are better supported with market and institutional systems have higher demand for sustainability assurance.
Hooks, Jill van Staden, Chris J (2011)	Evaluating environmental disclosures: The relationship between quality and extent measures	The British Accounting Review	UK	This article conducted content analysis on various form of measuring extent of reporting which include, page count, sentence count and proportions; and it evaluates the quality of information by applying a disclosure quality index. Their findings shows that the quality of disclosure is highly proportional to the degree of reporting measured by a sentence count. The authors suggested that a quality per sentence measure could be useful in distinguishing between firms that produce low quality and high-quality disclosures, since it considers both the quality and extent the of the disclosures

Gimenez, Cristina Sierra, Vicenta Rodon, Juan (2012)	Sustainable operations: Their impact on the triple bottom line	International journal of production economics	19 Countries	The paper analyses the impact of implemented environmental programmes (such as recycle design and environmental certification) and social practices on the dimensions of the triple bottom line (environmental, social and economic performance). Findings from the study revealed that internal environmental programmes have a positive impact on the three components of the triple bottom line, whereas internal social initiatives have a positive impact on only two components: Social and environmental performance.
Cho, Charles H Freedman, Martin Patten, Dennis M (2012)	Corporate disclosure of environmental capital expenditures: A test of alternative theories	Accounting, auditing & accountability Journal	USA	The article shows that corporations use environmental capital spending disclosure as a strategic tool or method to address their exposures to regulatory and political concerns.
Lanis, Roman Richardson, Grant (2013)	Corporate social responsibility and tax aggressiveness: a test of legitimacy theory	Accounting, Auditing & Accountability Journal	Australia	The paper empirically tests legitimacy theory by comparing the corporate social responsibility disclosures of tax aggressive firms and non-tax aggressive firms. The results show a positive correlation between CSR disclosure and corporate tax aggressiveness. Hence, it confirmed legitimacy theory context in corporate tax aggressiveness.

Eccles, Robert G Ioannou, Ioannis Serafeim, George (2014)	The impact of corporate sustainability on organizational processes and performance	Management science	USA	The study examines the impact of corporate sustainability on organizational processes and performance from 180 companies. The outcome of the study indicates that, in 2009, firms that voluntarily adopted sustainability policies as of year 1993 referred to as “High Sustainability firms” displayed distinctive organizational processes compared to their counterpart companies that do not adopted these policies, they are referred to as “Low Sustainability firms”. The authors identified that High Sustainability firms tends to have more established processes for their stakeholder, long-term oriented, and exhibit higher standard and disclosure of other non-financial information.
Cormier, Denis Magnan, Michel (2015)	The economic relevance of environmental disclosure and its impact on corporate legitimacy: An empirical investigation	Business Strategy and the Environment	Canada and US	The article investigates how tension are being resolved when companies try to maintain its legitimacy and also responds to the information needs of financial markets. The study outcome show that a company's environmental disclosure improves the quality of information assessed by the analysts, which ultimately allows better predictions. The authors also identified that environmental disclosure of a company can influence how its external stakeholders perceives its legitimacy. Hence, the information uncertainty posing a challenge to the financial analysts is reduced by such improved legitimacy. It was concluded that both sustainable development and environmental disclosure as well as economic-based environmental disclosure are valuable to financial analysts in making their forecasts.

Aman, Zainab Ismail, Sarifah Bakar, Nor Suhaily (2015)	Corporate sustainability reporting: Malaysian evidence	Proceeding of the 2nd International Conference on Management and Muamalah	Malaysia	They authors considered that engaging in sustainability activities is a crucial agenda for firms as this will not only benefits the companies but will also create a sustainable environment where the companies operate.
Diouf, Dominique Boiral, Olivier (2017)	The quality of sustainability reports and impression management: A stakeholder perspective	Accounting, Auditing & Accountability Journal	Canada	The perceptions of stakeholders especially the socially responsible investment (SRI) practitioners towards the quality of sustainability reports using the GRI framework was analysed.

CHAPTER THREE

RESEARCH HYPOTHESIS, DESIGN, AND METHODOLOGY

CHAPTER THREE
RESEARCH HYPOTHESES, DESIGN AND METHODOLOGY

This chapter discussed the research hypotheses development and methodological underpinning upon which the research is undertaken. The chapter is presented in sections. The first section describes the research hypotheses developed in this study. The second section explains the philosophical underpinnings of research paradigms and approaches used by other scholars. The third section presents chosen methodology of the study. The third section presents a detailed description of the approach and research strategy, the rationale for the approach, the techniques, and the procedures of the research method. This research design and methodology are judged and presented after the framework of the Research Onion Layers (Saunders, Lewis, & Thornhill, 2019, p. 130).

3.1 Research Hypotheses

The firm attributes examined in this research include financial leverage, the board composition of the firm and audit committee, which explain the firm's corporate governance, ownership structure, firm age, corporate visibility, and listing status. These research hypotheses are developed with recourse to some notable theories among of these are legitimacy theory, stakeholder theory, and institutional theory.

3.1.1 Independent Variables

3.1.1.1 Financial Leverage

Jensen and Meckling (1976) claim that within the framework of the agency theory, the more a firm is leveraged the more it discloses voluntary information with the aim of reducing its agency costs, which ultimately reduces its cost of capital. Leverage is the use of borrowed capital to finance the assets of the firm. (Watson et al., 2002) argue that leverage describes a firm's financial structure and measures the long-term risk that is involved. Companies that are highly geared have higher demand from creditors and lenders of capital to disclose information and give more disclosure about the associated risks, as they are marked as risky companies (Watts & Zimmerman, 1978). Al-Shammari, Brown, and Tarca (2008) argue that companies with higher leverage have by explanation, less equity and possibly in turn, quite fewer shareholders. Additionally, they are probably going to be subjected to more higher equity risk in comparison to the companies with lower level of leverage, and by extension are prone to greater

shareholders' demand for information to enable them assess the possibility of the companies meeting their debt obligations and also evaluating the level of risk of future cash flows that will arise from their investments (Al Mutawaa & Hewaidy, 2010). Jennifer Ho and Taylor (2007) explain that as debt holders have price protective of themselves by constricting debt covenants, firms with higher leverage have tendency of increasing the level of corporate disclosure to minimise agency costs, hence, it is predicted that companies with higher leverage tend to increase the amount of sustainability reporting. The connection between leverage and corporate social responsibility disclosure is explained in several earlier studies on the premises of agency cost theory (Alsaeed, 2006; Mohammad Hossain, Perera, & Rahman, 1995; Watson et al., 2002).

Several previous empirically studied found no significant relationship between CSR disclosures and leverage (Alsaeed, 2006; Chau & Gray, 2002; Mia & Al Mamun, 2011; Purushothaman et al., 2000). Brammer and Pavelin (2008) claim that a lowly geared company will ensures that creditors will exert minimal pressure to constrain the management discretion over Corporate Social Responsibility activities that are mainly indirectly related to the financial success of the company. However, few empirical studies discovered a significant positive relationship between leverage and CSR disclosures (Branco, Delgado, Gomes, & Eugénio, 2014; Elfeky, 2017; Mohammad Hossain et al., 1995; Malone, Fries, & Jones, 1993). Thus, the following hypothesis is therefore, tested:

H_1: There is a positive relationship between financial leverage and quality sustainability reporting practices.

3.1.1.2 Board composition

Board composition is one of the attributes of corporate governance. Others are Board Size, Ownership Structure, Chief Executive Officer (CEO) duality, Audit Committee(Nandi & Ghosh, 2013). It is the proportion of the non-executive directors and also gender on the board directors of the firm. Mohammed Hossain and Reaz (2007) posit that this firm characteristic is on the premise of agency theory, which requires that the boards are needed to supervise and control the activities of the directors

to ensure that they stay on course and to check their unprincipled behaviour. They also believe that non-executive directors may as well be known to be very good in decision-making and this skill may help to lower the consumption of perquisites by the management.

The board of directors is the most crucial governance structure within the company, therefore, its composition, regarding the age, gender, nationality, and professionalism of the components is regarded as important determinant of the performance of the organization (Rao & Tilt, 2016). The board of directors' role in an organization is to "oversee the actions and decisions of corporate management" (Rupley et al., 2012, p. 614). It is claimed that the company's board effectiveness and the degree to which it fulfils its crucial role would be impacted by the board composition (Fama & Jensen, 1983; Goodstein, Gautam, & Boeker, 1994; Pfeffer, 1972). Rupley et al. (2012) argue that the board composition, which supports proficient board governance is going to result in greater concern for firms' stakeholders, will result in better quality of sustainability reporting. They evaluate 127 US companies within five industries (Chemical and Allied, Electrical Utilities, Food and Beverage, Oil and Gas, and Pharmaceutical and Biotech) that covered a period of six years (2000-2005) to test the corporate governance and media's attributes in connection with the environmental voluntary disclosures. Their findings show that companies provide more environmental disclosures in response to their greater media coverage exposure. They equally discover significant positive connections between environmental disclosures and various aspects of the board composition (Rupley et al., 2012). Furthermore, Jia Wang and Dewhirst (1992) claim that independent directors usually have greater and expanded influence with larger groups of stakeholders and be likely to have a wider perspective that give them better exposure to sustainability reporting requirements (Rupley et al., 2012).

Shamil, Shaikh, Ho, and Krishnan (2014), Said, Hj Zainuddin, and Haron (2009) and Amran, Lee, and Devi (2014) could not find any correlation between board independence and CSR disclosure. Also, Michelon and Parbonetti (2012) in their findings have no direct relationship between the extent of sustainability reporting and the proportion of independent directors. Rather, their study reveals a major relationship between the segment of community influential members of the board and the extent of sustainability reporting. Hence, they based their recommendation on measuring the

board composition “beyond the traditional outsider or insider dichotomy” (Michelon & Parbonetti, 2012, p. 504) The community influential board members are the non-executive directors that help the company to create networking and reputation by offering contacts with the society and “provide valuable non-business perspectives on proposed actions and strategies” (Michelon & Parbonetti, 2012, p. 485).

Gibson assert that corporate governance connects closely to sustainability reporting. This belief synchronises with the definition of Global Reporting Initiative for sustainability when the inclusion of governance performance is seen as one of the components of sustainability (Güler Aras & Crowther, 2008; Naciti, Cesaroni, & Pulejo, 2021). Previous empirical studies claim that corporate governance is keenly related to sustainability reporting and have shown positive relationship between corporate governance characteristics such as board composition and CSR disclosure (Alves, Rodrigues, & Canadas, 2012; Gibson & O'Donovan, 2007; Herda, Taylor, & Winterbotham, 2012; Hieu & Lan, 2015; Jizi et al., 2014; D. Rouf, 2011; Sharif & Rashid, 2014). On the other hand, Amran et al. (2014), Shamil et al. (2014),Faisal et al. (2012) did not find any relationship between board composition and sustainability reporting practices. Hence, the following hypothesis is made:

H_2: There is a positive relationship between board composition and quality sustainability reporting practices.

3.1.1.3 Audit Committee

Audit committee is seen as a necessary means of effective decision-making processes for the corporate board of an organization in gaining the oversight system of the organisation as deduced in agency theory in playing a crucial role to explain the problem between the agent and the principal (Buallay & Al-Ajmi, 2020; Omair Alotaibi & Hussainey, 2016) . Audit committee has also become a tool and one of the important pillars of a good corporate governance charter to improve the quality of financial reporting, enhance board oversight, reduce the problem of information asymmetry, enhance auditor’s independence, performance and objectivity, improve the risk-management function, and enhance financial decision-making (Buallay & Al-Ajmi, 2020). Audit committee is found to be more active in examining financial statements

and reducing differences between external auditors and managers (Pucheta-Martínez & De Fuentes, 2007). Audit committee monitors the system of internal control through alliance with external auditors and with its crucial role traversing between the board of directors, internal auditors, and external auditors (Buallay & Al-Ajmi, 2020; Saibaba & Ansari, 2011). An active audit committee contributes to the enhancement of quality disclosure and reported earnings, and it also become an improvement to the degree and quality of voluntary disclosure (Karamanou & Vafeas, 2005; Vafeas, 2005).

Omair Alotaibi and Hussainey (2016) argue that the size of an audit committee reinforces its expertise base, capacity, and enhances reliability to the corporate reporting practices. There is a range of capability, experiences and opinions that enhances the confidence of the stakeholders and sustainability performance in a larger audit committee (Hasan, Hussainey, & Aly, 2022). However, Jensen (1993) says there are additional costs connected to an extensive audit committee such as the likely cost of poor coordination and control, and communication. Studies have also shown that extensive audit committee is susceptible to free-rider problem and dispersed responsibilities that can subvert CSR disclosure practices (J. Li, Mangena, & Pike, 2012; Mangena & Pike, 2005). Some studies show that large audit committee makes communication become harder and also slow down decision making process and could not find any positive relationship between large audit committee and the quality sustainability reporting practices (Allegrini & Greco, 2013; Felo & Solieri, 2009; Hackman, 1990). Other scholars see positive relationship between large audit committee and the quality sustainability reporting practices (Agyei-Mensah, 2019; Al-Shammari & Al-Sultan, 2010). Therefore, this study postulates the following hypothesis:

H_3: There is a positive correlation between audit committee and the quality sustainability reporting practices.

3.1.1.4 Ownership Structure

Each organization has various ownership structure which comprises of institutional, foreign, institutional, family, director, or many other types and each owner has certain role in the board of the organization that leads to engaging in quality sustainability

reporting practices (Bae, Masud, & Kim, 2018). Hence, agency problem can be reduced by disclosing relevant information to the board thereby, sending quality signals to the public about their stewardship. Institutional investors comprise a group of influential and legitimate stakeholder for firms and perform a notable role in shaping the management strategies of the firms in relation to sustainability reporting. The more influential the stakeholders are to the firm, the more considerate the firm will be in managing and relating with those stakeholders (Filatotchev, Lien, & Piesse, 2005). Bae et al. (2018) argue that institutional owners are very active in the board since they represent the interest of their own shareholders and must create value for them, therefore, they engage in sustainable development and investment projects as part of the means for value creation. Furthermore, more voting rights give rise to institutional owners to become more potent and influential as they like to make more disclosure of the economic, environmental, and social engagements as they foster the firm's competitive advantage and investment opportunities in the market (Bae et al., 2018).

Some of the prior empirical studies show the existence of positive relationship between ownership structure and sustainability reporting practices (Amidjaya & Widagdo, 2020; Bae et al., 2018; Harjoto & Laksmana, 2018; A. Khan, Muttakin, & Siddiqui, 2013b; Oh, Chang, & Martynov, 2011). On the other hand, some other scholars have found a negative or no correlation between ownership structure and sustainability reporting practices (Amran & Haniffa, 2011; Dissanayake, Tilt, & Qian, 2019; Ntim, Lindop, & Thomas, 2013; P. Sharma, Panday, & Dangwal, 2020). Hence the study proposes the following hypothesis:

H_4: There is a positive relationship between ownership structure and quality sustainability reporting practices.

3.1.1.5 Firm Age

Age is seen to be one of the driving factors that influence sustainability reporting practices in banks. The financial institutions' reputation are built with age in accordance to legitimacy theory, therefore, older institutions attempt to reinforce their reputations by producing more sustainability reporting (Menassa, 2010). Many empirical studies use company age as a factor to be reckoned with and positive relationship exist between

age and sustainability reporting practices as older companies have longer experience, which helps in identifying the resources required for their survival and safeguarding their reputations by their social and environmental involvement (Bhatia & Tuli, 2017; Chakroun, Matoussi, & Mbirki, 2017; Mohammed Hossain & Reaz, 2007; Liu & Anbumozhi, 2009).

Conversely, Barnes and Walker (2006) argue that the newly established firms will want to make more report about the firms than the older firms to raise more funds and have more shareholders. This strategic objective will require a newly firm to make a comprehensive report for credibility to influence the potential investors. On the other hand, Bhatia and Tuli (2017) view that the older firms make more sustainability reports than the newly established firms because they have sufficient resources and experience to do so. The older companies are accustomed with the environment and community the operate, and they would like to portray themselves as good citizens by reporting more sustainability related information and due to antecedent of how sustainability reporting attracted new customers and created goodwill. The sustainability report also advances the older companies a competitive edge as to their sustenance during their newer counterparts.

Prior studies have discovered that age is significantly associated with sustainability reporting (Al-Gamrh & Al-dhamari, 2019; Chakroun et al., 2017; Singh & Ahuja, 1983). However, some other studies found no significant relationship between firm's age and the sustainability reporting (Alsaeed, 2006; Fahad & Nidheesh, 2020; Mohammed Hossain & Reaz, 2007). Hence, the above discussion leads to the following hypothesis:

H_5: There is a positive association between firm age and quality sustainability reporting practices.

3.1.1.6 Corporate Visibility

Corporate visibility is the extent to which an organisation is known to the public. Some organisations appear to be more visible to the public in comparison to others. The nature and the capacity of any business will determine the level of its visibility. According to Castelo Branco and Lima Rodrigues (2006) due to legitimacy reasons, firms in the

industries where there is a huge potential environmental effect are more likely to report environmental information in the industries where the visibility is very high among final consumers. Firm that is highly visible will attracts more demands of stakeholders for socially responsible activities and will be exposed to the media, the government, NGOs, and other pressure groups, which indirectly may impact on companies' operating practices, thereby pressurise firms to act in environmental and socially responsible manner (H. Wang & Qian, 2011). Visibility impacts on the level of external pressure a company encounters since stakeholders take greater interest in company that have higher level of visibility. The demand of stakeholders for compliance usually creates institutional pressures, and the media aggravate these pressures by focusing public interest on the firms' corporate behaviors (Dawkins & Fraas, 2011).

Consequently, financial institutions have possibility of considering vital issues of social and community interest and report information due to their high visibility (Castelo Branco & Lima Rodrigues, 2006). The corporate coverage plays a crucial role to increase the public pressures on companies' visibility and can mobilizes social movements like the environmental interest group to enable companies creating the process of institution building that will shape the norms of legitimizing sustainability practices (Reverte, 2009). According to Simon (1992), the media has been seen as the main source of environmental information, which not only plays a passive role to influence institutional norms, but also playing a more active role in selecting the stories suitable for reporting and stating them in such a way that will reveal editorial values.

Therefore, firms with high public visibility will make report on issues that will brighten its social image in the midst to the public a high priority as it depends much on their patronages. Meznar, Johnson Jr, and Mizzi (2006) claim that press coverage associated positively with companies' attempts to influence the way outsiders perceived the firm. Other empirical studies have indicated the relationship between company visibility and Corporate Social Responsibility (Bansal & Clelland, 2004; Castelo Branco & Lima Rodrigues, 2006; Dienes, Sassen, & Fischer, 2016; Gamerschlag, Möller, & Verbeeten, 2011). The following hypothesis is formulated:

H_6: There is a positive relationship between the corporate visibility and quality sustainability reporting practices.

3.1.1.7 Listing Status

Listing could be done in more than one stock exchange, especially international cross-listing, which enable firms listed in their home country and also on foreign stock exchange markets (Oluwadebi, 2016). This tends to make firms receiving more attention from the general public, thereby put more demand on the firms to report more information about the firms for the diversity of the stakeholders (Branco et al., 2014). A company that is listed on a foreign stock exchange will make more disclosures since it may require to comply with the disclosure rules of other stock exchanges beside its home country, and will equally attract greater analyst coverage (Cooke, 1989). Hence, disclosure resulting from listing status serves to restrict the agency and monitoring costs due to greater number of stakeholders and shareholders (Reverte, 2009). There are diverse interests and power of stakeholders from foreign countries other than the companies domicile listing countries that may wield several pressures on companies to be socially responsible, and require disclosure of great deal of social information for legitimacy (Haniffa & Cooke, 2005).

Mohammed Hossain and Reaz (2007) examine the relationship between listing status and voluntary disclosure by banks in Indian and find that, there is no relationship existing between them. Conversely, Branco et al. (2014) examine 286 sustainability and financial reports from 86 companies listed on the Portuguese stock market to determine the factors that influence the assurance of sustainability reports, using the bivariate and multivariate non-parametric statistics. Their findings show that listing status is one of the determinants of sustainability reporting assurance. Some other empirical studies also find significant relationship between the environmental disclosures and listing status (Cooke, 1989; Leventis & Weetman, 2004; Robb & Zarzeski, 2001). Hence, the following is going to be tested:

H_7: There is a positive correlation between listing status and quality sustainability reporting practices.

The summary of the hypotheses developed in this study is shown in Table 3.1 and the proposed company characteristics impacting the Quality Sustainability Reporting practices in Figure 3.1.

Table 3.1: Summary of Hypothesis

Independent Variable (Firm Characteristics)	**Hypothesis**	**Description**
Financial Leverage	H_1	There is a positive relationship between financial leverage and quality sustainability reporting practices
Board Composition	H_2	There is a positive relationship between board composition and quality sustainability reporting practices
Audit Committee	H_3	There is a positive relationship between the audit committee and quality sustainability reporting practices
Ownership Structure	H_4	There is a positive correlation between ownership structure and quality sustainability reporting practices
Firm Age	H_5	There is a positive association between firm age and quality sustainability reporting practices
Corporate Visibility	H_6	There is a positive relationship between corporate visibility and quality sustainability reporting practices
Listing Status	H_7	There is a positive correlation between listing status and quality sustainability reporting practices

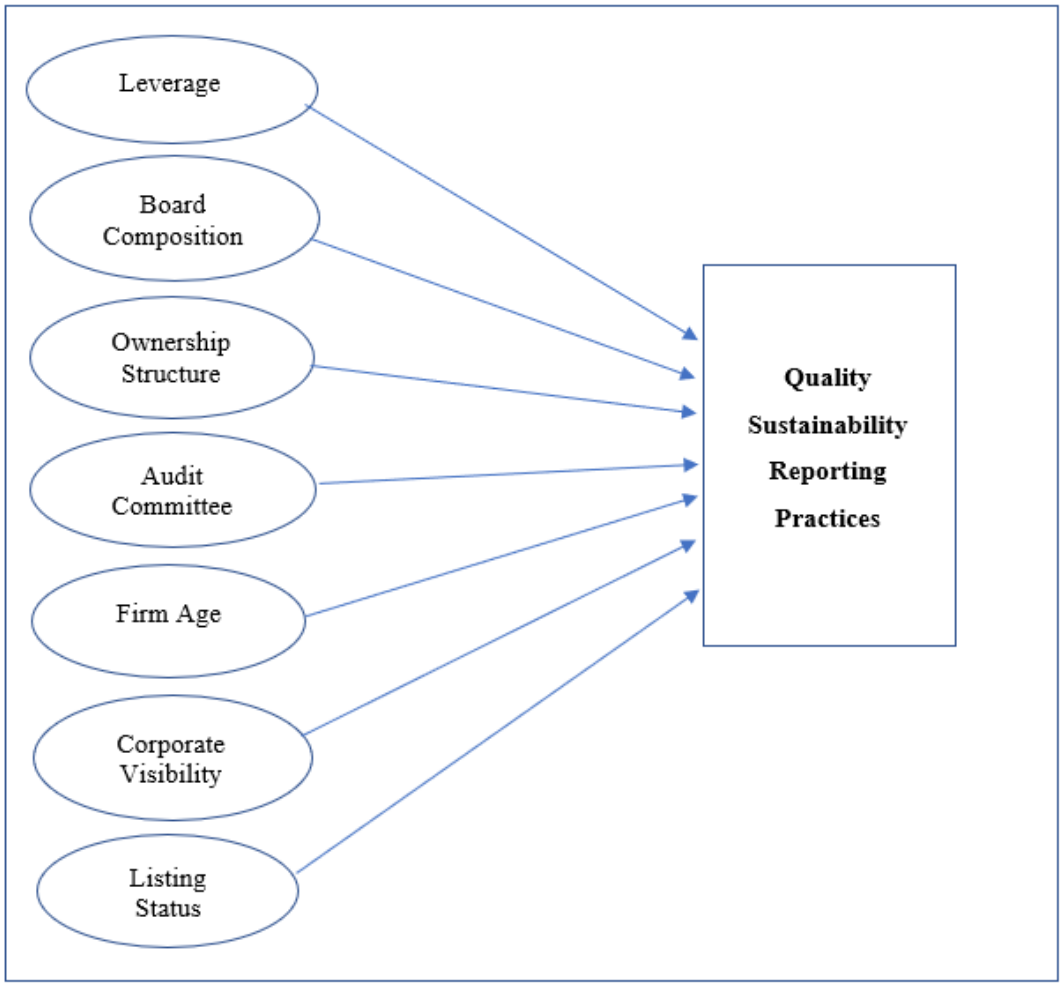

Figure 3.1: Proposed Company Characteristics Impacting the Quality Sustainability Reporting Practices

3.1.2 Control Variables

The study uses two control variables to enhance the internal validity as C. Williams (2007) declares that if variable cannot be controlled, the results validity may be sacrificed. It is very germane to employ control variables because as an experimental study, the study will fail to test the causal relationship in which change in the outcome variable is only resulting from the change in the explanatory variables when it is implemented under controlled atmosphere. The first control variable is profitability, while the second variable is firm size. These two variables are controlled so they do not impact on the results.

3.1.2.1 Profitability

Profitability, which depicts the good financial performance encourages firm to reveal more detailed information that will give support and sustain its good financial position. Firm profitability sometimes influences its investment decision, it gives the firm the financial capacity to invest in the programmes of environmental, social, and economic benefits. Whereas, poor financial performance put pressure on the firm to cut cost and maximize its economic returns to the shareholders (Artiach, Lee, Nelson, & Walker, 2010). According to signalling theory, firms that are expecting favourable future financial performance have stronger incentives to disclose more voluntary information than the one expecting unfavourable financial perspectives (Raffournier, 1995). There are other studies mostly based on the stakeholder theory, which presume a positive correlation between profitability and envrionmental and social disclosures policy (Belkaoui & Karpik, 1989; Cowen, Ferreri, & Parker, 1987; Roberts, 1992; Ullmann, 1985).

In the view of Belkaoui and Karpik (1989), the fundamental cause of a positive link between profitability and social disclosure is knowledge of management. A management's knowledge to make a firm profitable is equally has the knowledge and understanding of social responsibility that leads to greater environmental and social disclosures. Ng and Koh (1994) posit that profitable corporations are more susceptible to public scrutiny and political pressure, and thus use greater self-regulating methods, citing voluntary information disclosure in order to circumvent regulation. The explicit and most obvious explanation presumably is that profitable corporation have the essential economic means, which can be the so-called organizational slack (Cowen et al., 1987; Hackston & Milne, 1996; Pirsch, Gupta, & Grau, 2007). In any corporation that has minimal economical resources, management will possibly concentrate on activities that impact on the corporation's earnings instead of the production of environmental and social disclosures (Roberts, 1992; Ullmann, 1985). Although, going by the perspective of legitimcacy theory, profitability can be attributed to be either negatively or positvely associated to corporate social responsibility disclosure (Neu, Warsame, & Pedwell, 1998).

3.1.2.2 Firm Size

Another control variable that the study uses is firm size, which is known to be one of the crucial driving factors for sustainability reporting practice and it has a way of influencing the strategic plan of the firm to stakeholder demands. The perspective of public pressure legitimacy theory is taken cognizance with the public. Watts and Zimmerman (1990) argue that larger companies regarded to be more visible to the public and susceptible to public scrutiny, possess more market control, and are more newsworthy. Therefore, they are probably to be subject to consumer aggression, public hostility, militant employees, and government regulatory bodies' attention (Reverte, 2009). The impact of large corporations on the community is bigger, which follow up with bigger group of stakeholders that have greater influence over the large corporations (Hackston & Milne, 1996; Knox, Maklan, & French, 2005). Large firms do engage in more activities, have greater influence on the community, and may have some shareholders that are more interested in the firms' environmental program, which their annual reports cannot efficiently communicate such information to their stakeholders. (Cowen et al., 1987) claim that large firms are under pressure to show their activities in legitimizing their businesses. Dowling and Pfeffer (1975) posit that larger firms are more visible politically; therefore, they are required to engage in legitimating behavior to a greater extent.

Several studies from an empirical perspective have found positive relationship between sustainability reporting and firm size (C. A. Adams et al., 1998; Artiach et al., 2010; Elfeky, 2017; Hahn & Kühnen, 2013; Haniffa & Cooke, 2005; Hieu & Lan, 2015; Lan, Wang, & Zhang, 2013; Naser & Hassan, 2013). There is evidence in the work of Lang and Lundholm (1993) that show that the disclosure of additional information is associated to the larger firms than the smaller firms in the United States of America (USA).

3.2 Philosophical and Research Paradigms

The essence of examining the research paradigm is to know the paradigm that underpins the choices and the decisions to make in determining a research position (Carson, Gilmore, Perry, & Gronhaug, 2001). A good understanding of the research paradigm is vital as it creates awareness about the social world. A paradigm according to Guba and

Lincoln (1994, p. 107) is defined as " a set of basic beliefs (or metaphysics) that deals with ultimate or first principles. It represents a worldview that defines, for its holder, the nature of the world, the individual's place in it, and the range of possible relationships to the world and its part".

Saunders et al. (2019, pp., 130) refer to research philosophy as a system of assumptions and beliefs concerning the development of knowledge. The whole essence of research is to develop knowledge and this knowledge development may not be as dramatic as having a new theory of human impetus but new knowledge is developed (Saunders et al., 2019). According to Collis which define research paradigms as "the progress of scientific practice based on people's philosophies and assumptions about the world and the nature of knowledge as it relates to how research should be conducted". A paradigm comprises the following components: ontology, epistemology, methodology, and methods (Scotland, 2012). Each of these components is discussed for clarity and shown in Figure 3.2.

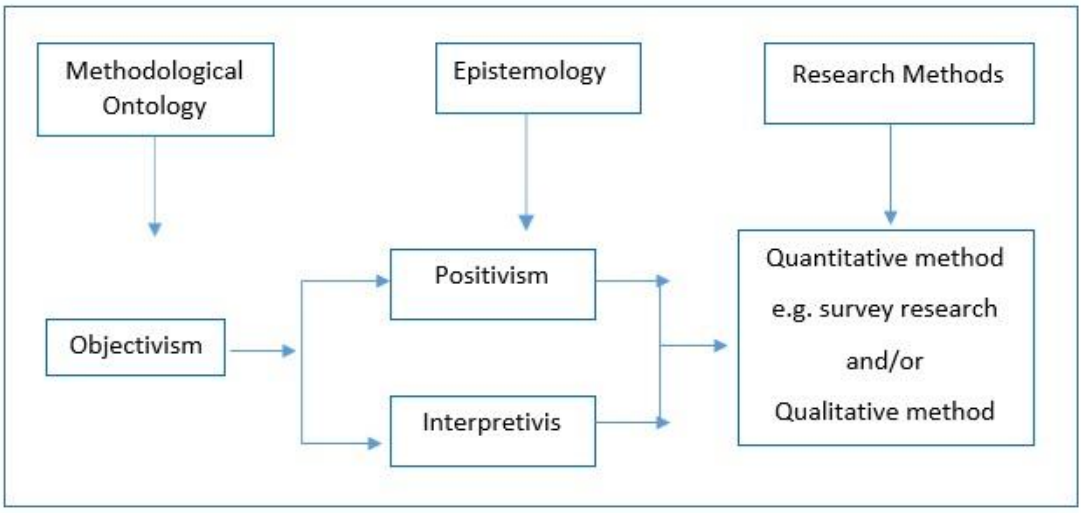

Figure 3.2: The link between Methodological Ontology, Epistemology, and Research Methods

Ontology is concerned with the very nature of the essence of the social phenomena, which is the key concept that is being investigated (L. Cohen, Manion, & Morrison, 2002, pp., 7). Ontology assumptions are based on what comprises reality, in order words by asking the question 'what is? (Scotland, 2012). This allows researchers to take a position concerning their perceptions of how things are and how they work. The key or primary concept of investigation in this study is Sustainability Reporting, which is being studied as an independent social construct with its guidelines and structure.

This research follows the view of objectivism ontology, which is the idea of causality in social practices of the social world. The belief of the objectivists is that the social phenomena and their meanings create an existence that is separate from social actors (Bryman, Becker, & Sempik, 2008). Objectivism is centred on the assumption that the categories of social phenomena that we use in daily discussions have an existence that is independent of actors (Bahari, 2010).

Epistemology is the study of nature and forms of knowledge, how to acquire it, and communicate it to other people (L. Cohen et al., 2002, pp., 7). Does epistemology ask the question about the nature of the relationship between what can be known and the would-be-knower? (Scotland, 2012). It explains the link between the researched phenomenon and the researcher. Audi (2010) claims the belief of epistemology is grounded in the experience for in virtue of that experience, that belief, therefore, constitutes knowledge that provides a greenfield before it ('epistemic' comes from the Greek episteme meaning, roughly, 'knowledge') (Audi, 2010, p. 7). The objectivism ontology of the study enables it to be seen in a natural scientist viewpoint that considers facts mainly to be reality. The study collect data about the sustainability reports, which are seen to be the object without considering any subjective issues. This process allows the study to ensure objective data that is void of any bias and is objectively analysed.

When the study fulfils the first and second components of the research paradigm, it ushers in the third component for fulfilment, which is the research methodology. This is meant to provide in the study the scientific techniques, which are most convenient to investigate the reality of concern. This helps to provide an answer to the vital questions in the research relationship of how findings can be achieved. The methodology is defined as the strategy or plan of action that triggers the choice and the use of particular methods and connects them to the desired results (Scotland, 2012). Some types of methodology are experimental research, survey research, ethnography, phenomenological research, grounded theory, heuristic inquiry, action research discourse analysis etc. (Crotty, 1998, p. 7) Methods are the precise techniques and procedures that are being used to collect and analyse data, which are connected to some research question and hypothesis(Crotty, 1998, pp., 6). Some of these methods are sampling, measurement and scaling, questionnaires, observation, interview, focus

group, case study, life history, narrative, theme identification, comparative analysis, document analysis, content analysis, conversion analysis etc. (Crotty, 1998, pp., 3)

Philosophers have taken varying views that have led to the emergence of diverse paradigms related to various disciplines. However, within the span of social research, there are four different paradigms designated, which are critical theory, realism, positivism, and constructivism. On the other hand, (Saunders et al., 2019, pp., 144) explain five management philosophies namely: positivism, critical realism, interpretivism, postmodernism, and pragmatism.

This research will only discuss the actual philosophies related to the study. Positivism and Interpretivism are the two fundamental techniques for research methods in social science. Positivism sticks to and underscores the view that the knowledge that is verified scientifically is vital. The positivist believes that there is an understanding of what is being tested within the outline of the principles and assumptions of science so that the measurement can be reliable, valid, and can be generalized to the world at large (Bell, Bryman, & Harley, 2018; Saunders et al., 2019). Positivists prefer quantitative approaches such as structured questionnaires and social surveys and official statistics because of their good representativeness and reliability, they explore knowledge on the premise of systematic observation and experiment, to discover the social laws corresponding to the natural laws which are disclosed by the methods of natural science (Roth & Mehta, 2002). Positivist methodology is explaining relationships. The researchers consult erstwhile theories in the literature to form hypotheses or research questions at the initial phases of the research and are not likely to add to the prior theory as the research draws into concluding stages (Tashakkori, Teddlie, & Teddlie, 1998). Positive endeavour to discover causes what influence outcomes and have the aim of formulating laws, hence yielding a premise for prediction and generalization, thereby, a deductive approach is assumed(Scotland, 2012). Positivism however was criticized for not including the individual subjective states as the paradigm considered human behaviour is controlled, which is determined by external factors. This situation then gave rise to subjective philosophers like interpretivists.

The interpretive methodology is focused on understanding phenomenon from an individual’s viewpoint, exploring interaction among individuals together with the

cultural and historical contexts which people inhabit (Creswel, 2009, p. 7). Interpretive methods yield discernment and understandings of behaviour, clarify actions from the participant's standpoint, and control the participants(Scotland, 2012) Some of the examples of interpretivism are focus groups, open-ended observations, open-ended questionnaires, open-ended interviews, role-playing etc. According to Scotland (2012), these methods usually generate qualitative data.

The third school of thought that criticised the positivists and interpretivists is the post-positivists (critical realism). It explains the form of positivism that is less strict. It upholds the idea that the goals for research of natural scientists and social scientists are alike and use the same methods of investigation (Chilisa & Kawulich, 2012). Post-positivism can be distinguished from positivism in accordance to the focus of theory that formed the idea, while positivism focus of theory verification, whereas, post-positivism focus on theory falsification (Ponterotto, 2005).

This study uses a positivist approach, which is basically a deductive method to understanding sustainability reporting in the sense that the concepts and factors identified in the planned research model can be objectively measured. Positivist approach is used widely to describe the reasons for the firms engaging in sustainability reporting using corporate reporting like annual reports, standalone report or websites as means of reporting (Islam Mohammed & Deegan, 2008; Roberts, 1992). Positivism and philosophy-based research has controlled the scientific research method.

3.3 Research Strategy and Methods

This study examines the driving factors that influence the quality sustainability reporting practices in the financial services sector of G7 nations. The study uses the scientific method that empirically tests the hypotheses using the structured quantitative data. Since the study follows a positivism philosophy, then an archival strategy that relates to it is used to address the research questions. The reason for the use of archival strategy is because of the research data that the study retrieved from the related repositories of the archives or corporate data of individual organizations. The research method collects and analyse data from the annual reports or standalone sustainability reports of companies from the complete database of GRI from 2014 to 2018. The study

focuses on the companies in the financial services sector that used GRI-G4 to prepare their reports from 2014 to 2018. The study tests the driving factors for quality sustainability reporting practices going by the cause-and-effect relationship. The empirical studies implemented are categorized into three.

The first category is conducting a pilot study at the preliminary stage of the research. This is a small-scale study to help in deciding whether a large-scale research work would be feasible to carry out. The outcome of the pilot study helps to refine the research topic, questions, and best method in achieving the aim and objectives of the main study. According to Arain, Campbell, Cooper, and Lancaster (2010), a pilot is useful in testing diverse aspects of the research methods planned for a larger, more thorough, assiduous or confirmatory research. Pilot study, therefore, is a useful approach to evaluate the appropriateness of the intended method and processes for good research.

The second category is to employ the content analysis method to conduct quantitative analysis of the qualitative data of the GRI G4 Sustainability Reporting Guidelines, by assigning numerical values to these empirical data to evaluate the quality sustainability reporting (Clarkson, Fang, Li, & Richardson, 2013; De Villiers & Van Staden, 2006; Hackston & Milne, 1996; Hooks & van Staden, 2011; Lodhia & Hess, 2014; Unerman, 2000).

The third group is the use of the regression analysis method to examine the quantitative empirical studies. Regression analysis is used as a method in instances where a certain phenomenon is determined and controlled by specific factors with the aim to attempt to quantify and explain variations in the dependent variable due to variations in the independent variables (Rosselló, 2012, p. 31) . Therefore, it is a quantitative research method that is employed when modelling and analysing of numerous variables are involved in a particular study. Several empirical studies have used regression analysis to examine the quality of sustainability reporting (Clarkson et al., 2013; Fernandez-Feijoo, Romero, & Ruiz, 2014; Hooks & van Staden, 2011; Rupley et al., 2012).

The research applies quantitative approach with complete understanding of content analysis for the scoring disclosure index and employs multiple regression analysis to

predict the variation in the dependent variable, which is the quality of sustainability reporting in accordance with the variation or change in the independent variables, which are seven companies' attributes namely: Leverage, Board Composition, Age, Corporate Visibility, and Listing Status, while Profitability and Size are used as control variables.

3.3.1 Cross-Sectional Regression

Cross-sectional regression refers to the process of analysing data that has different units with singular period, in which the dependent variable and independent variables are related to the same single point in time (O'Laughlin, Martin, & Ferrer, 2018). Unlike the Time series regression that analyse data of the same unit over different period. The study uses cross-sectional regression to analyse the pilot study that was conducted in the second year of the study where financial services sector in North America (Canada and the USA) were examined for the year singular period of 2016.

3.3.2 Panel Data Regression

Panel data analysis is referred to the process of analysing a particular subject that is periodically examined over a defined time frame within multiple sets. It enables researchers in the social sciences to embark on longitudinal analyses in a broad variety of fields, therefore, its data sets usually include sequential cross-sectional data within each of which exist in a time series (R. Yaffee, 2003). Panel data can also be referred to as longitudinal data is a dataset, which combines both the dimensions of cross-sectional and time series horizons over the subsequent time periods, which the research strategy required (Torres-Reyna, 2007).

The study uses panel data regression to analyse the data of 81 companies from the financial services sector of G7 nations for 5 years quantitative data of 2014, 2015, 2016, 2017, and 2018. All the research data cases are analysed and tested at each individual year, that is, research data cases are analysed and tested in 2014, research data are analysed and tested in 2015, and continued till 2018. On this premise, from the research onion of Saunders et al. (2019) the research data are tested and analysed on longitudinal time series horizon.

3.3.3 Data Variables

This study being quantitative research seeks to arrive at numerical outcomes, which can provide the best answers to the research questions. The regression analysis is used to find an explanation for the changes or variation in one factor because of changes or variation in another factor(s), hence, these changing factors are referred to as variables. There are two major types of variables in regression analysis, dependent and independent variables. Dependent variable is also called a response or outcome variable. It is that variable that the research aims to measure, whose value mainly depends on the other variable. On the other hand, independent variable, which is also known as predictor or explanatory variable affects the change or variation in the dependent variable and is used to predict the value another research variable (Dougherty, 2011, p. 46; Greene, 2003, p. 73).

Furthermore, there is other type of statistical variables that is known as control variable. Statistical control variables are regularly used to generate more precise estimates of relationships among the underlying theoretical concepts of interest (Spector & Brannick, 2011, p. 289). The importance of using the control variables in this study is that being experimental research, it will not be possible to test the causal relationship between the variables unless it is executed under controlled circumstances wherein, the impact of these variables on the response/dependent variable are controlled, so that the variation in the dependent variable is mainly the resultant of the variation in the explanatory/dependent variables (Kelley & Bolin, 2013, p. 79).

3.3.4 Sample Size

The initial sample consists of all the listed companies in the financial service sector of G7 countries that used GRI G4 guidelines to prepare their integrated or sustainability reports for 5 years period, from 2014 to 2018. Due to missing data final sample consist of 81 companies with 220 firm-year observations. The sample is balanced because all companies were not represented in all the 5 years period. The study excludes any report produced in other languages other than in English, due to the problem of translation. Listed firms usually considered in previous studies also, owing to the reason that they are under the examination of market players, and their corporate data can be easily accessed (Bhatia & Tuli, 2017; Dissanayake et al., 2019; Elfeky, 2017; Hackston & Milne, 1996; Hieu & Lan, 2015; Jizi et al., 2014).

3.3.5 Data Collection

This study collects data from the secondary sources by requesting for the complete list of companies' data from the inception of GRI to 2019 from GRI headquarters in Amsterdam and the list was sent in excel format via email. Data collection focuses on 2014 to 2018 from the company's standalone sustainability reports and integrated annual report, and the data were hand collected, which become a major contribution to this study. The annual report of a company is judged to be the most vital source of information about the activities of a company and it is the only reliable document that is used to communicate the company's activities to its shareholders and by extension to other stakeholders (C. A. Adams et al., 1998; Rob Gray, Kouhy, & Lavers, 1995a). Hence, for the reports to be comparable and reliable there must be standardization in the contents and reporting formats. The study, therefore, uses the company integrated annual reports and, the standalone sustainability reports from GRI database. The other related reports of the companies under review were downloaded from each company's website.

The information from annual reports is prepared in a standard format and has been externally assured, which were download from the company's websites as against collection of hard copies from their registered offices in of the opinion that this approach is more accessible to the public. Some companies have used annual reports consistently as source for corporate sustainability disclosure (N. Brown & Deegan, 1998; Guthrie & Parker, 1989). King et al. (2015) report that KPMG in its survey on global trends in sustainability reporting establish that approximately 56% of companies integrated sustainability information in their annual reports.

Many companies on other hand, issue standalone sustainability or environmental report in addition to the annual report to demonstrate their firm commitment to the society on environmental and social issues and others provide the information on sustainability on their official corporate websites because of their perception about the increase use of websites, but the information on the corporate websites are not regulated, hence, it will be difficult to prove its objectivity and access its credibility (Jason Zezhong Xiao, Yang, & Chow, 2004). The research will exclude any sustainability information that companies disclosed directly on their corporate websites, but not reported in the formal

annual reports or standalone sustainability reports because of lack of comparability and reliability.

The study uses Osiris online database to retrieve the financial variables, while integrated annual reports and standalone sustainability reports are used for the non-financial variables. The empirical study covers the 5 years period from 2014 to 2018, which covered the period that GRI G4 and FSS guidelines were in use. The version has been superseded by GRI Standards, which was released and required for use on or after 1 July 2018 (GRI, 2018a).

3.3.6 Evaluating Quality in Sustainability Reporting

The section discussed the approached applied in achieving the first research objective to assess the quality of sustainability reporting by developing a reporting index, using content analysis techniques.

3.3.6.1 Content Analysis

This research uses content analysis as a technique to measure the sustainability reporting by using systematic approach to identify and quantify in a transparent manner the presence or absence of certain concepts, sentence, themes, phrases, or words from sustainability reports of companies to examine the companies that are practicing sustainability reporting. The use of content analysis is a common methodological approach in accounting research, mostly in evaluating companies' environmental and social disclosures (Lodhia & Hess, 2014; Montabon et al., 2007). The use of content analysis in a text can be divided into two groups, the study that is aimed at extent or quantity of sustainability information disclosure, which is referred to as mechanistic approach and another one that is aimed at the quality of the disclosed information, which uses interpretative approach (Beck, Campbell, & Shrives, 2010). Measuring quantity of disclosures while ignoring the quality of the information reported might be inadequate to assess the theme of disclosures (Hooks & van Staden, 2011). Therefore, the interpretative or quality approach measures full and comprehensive disclosures with the goal of distinguishing between excellent and poor reporting/disclosure of items, therefore, qualitative approach in content analysis offers a better measure of disclosure above the ordinary binary record of the extent of an item that shows only presence or

absence (Hooks & van Staden, 2011), hence, the study uses the quality approach of content analysis since the aim of the study is to examine the driving factors for quality sustainability reporting practises.

The study explore what organizations are reporting in relation to what is required from the literature. 220 sustainability and annual reports were manually coded based on 107 economic, environmental, and social indicators that are obtained from the Global Reporting Initiative frameworks. Although, content analysis software, NVivo and MAXQDA do exist, but the study decided to use manual coding system because this seems to be more appropriate for sophisticated and complex textual data to identify more perfectly the various terminologies that the companies used. Another reason for using manual coding systems is that the content analysis used for the study is both to evaluate the content and the quality of the reporting text, which content analysis software cannot capture. Moreso, reporting styles and content differ from one company to another, hence some keywords are not readily available. Krippendorff (2013) acknowledges that content analysis software can be used to process a very big data in a good speed, but only gives recognition to string variables, thereby, the content meanings in the text can miss out. Therefore, the use of content analysis software cannot guaranty the semantic validity unless the text is predictable and recurring.

Bernard Berelson published Content Analysis in Communication Research in 1952, which attracted recognition for the method as a resourceful tool for social science and Corporate researchers; Berelson describes it as a research method for the systematic, objective, and quantitative description of the visible content of communication (Berelson, 1952). Content analysis is multi-purpose research method that is developed for probing into any of research problem, whose information contents and communication serve as the basis of inference (Holsti, 1969). It is adjudged to be the most used method to analyse and codifying qualitative information from selected criteria into various categories (Bayoud et al., 2012; Hooks & van Staden, 2011). Kerlinger (1986) describes content analysis as a technique used for studying and analysing communication in a very objective, systematic, and quantitative manner for the intents of measuring variables.

Krippendorff (2013, p. 24) defines content analysis as "a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use". He emphasises that content analysis as a research method, must be reliable and capable of having a valid result. It shows that the replicable result in findings can be applied by researchers using the same method to the same data are bound to arrive at the same results even though the times and circumstances of operations differ, and that replicability is the most vital form of reliability (Krippendorff, 2013).

Weber (1990) refers to content analysis as "a research method that uses a set of procedures to make valid inferences from text" pp9**.** Weber emphasises that content analysis classifies textual material and reduces it to bits of data that are relevant and manageable. It could be applied to significant problems at the divergence of culture, social interaction, and social structure. Also, it could be used in experimental design to generate dependant variables and used to examine small groups in the society (Weber 1990). Prasad (2008) describes it as a scientific study for content of communication with reference to the meanings, intentions, and contexts, which contained in messages.

Previous studies indicate that content analysis produces valid result for corporate sustainability reporting research, hence, enabling researchers to examine the degree of different disclosure items (Gamerschlag et al., 2011; Gao, Heravi, & Xiao, 2005; M. A. Islam et al., 2016; Habib-Uz-Zaman Khan, Azizul Islam, Kayeser Fatima, & Ahmed, 2011; Kuzey & Uyar, 2017; Mansi, 2015; Naser & Hassan, 2013; Novokmet & Rogošić, 2016; Skouloudis, Evangelinos, & Kourmousis, 2010).

- **Reliability of Content Analysis**

Identification and measurement of words, which is referred to as coding is of key significance in content analysis, therefore, its stability and reliability cannot be compromised. Stability shows the degree to which the content classification results are unvarying overtime. Stability that ensures reliability is ascertained when the same result is achieved by the same coder who coded the same content more than one time. This research ascertained stability by dual coding of the content of 220 reports at different intervals for reliability using the scoring method of 0, 1, 2, and 3. The results of the coding are similar. On the other hand, multiple coders can be used to increase the outcomes' objectivity when a very high degree of harmony subsists among the coders.

The use of this approach requires that the researcher first identify certain sustainability issues, analyse and quantify them with the use of scoring methodology. Gamerschlag et al. (2011) consider that one of the most common ways to construct content analysis is by choosing the unit of analysis and an index in measuring the quality.

- **Unit of Analysis**

Unit of analysis is defined by Gamerschlag et al. (2011) as an identifiable component of communication that is used to measure variables and it is considered as the key issue in content analysis. Unit of analysis can be applied in a text as counting of words, sentences, or paragraphs. The counting units' scale of variables can be from single word or symbol, theme, character, paragraph or other grammatical units to items (Bos & Tarnai, 1999; Holsti, 1969).

Gamerschlag et al. (2011) in their unit of analysis used the number of words to quantify the volume of sustainability disclosure and employed the use of GRI Sustainability Reporting Guidelines to enable them to identify their keywords and appraise the quality of the sustainability information disclosure.

- **Identification of Key Words**

Identification of key words comes after the unit analysis has been established. This is a vital task of content analysis, which is in line with previous studies (Clarkson et al., 2008; Gamerschlag et al., 2011; M. N. Islam & Chowdhury, 2016; Widiarto Sutantoputra, 2009). The key words for the content analysis for this study is derived from the framework of the GRI G4 Sustainability Reporting Guidelines in conjunction with the sector specific disclosures, which is The Financial Services Sector Supplement (G4-FSS), which has 91 core disclosures and 16 sector supplements (GRI, 2015) The GRI sustainability reporting guidelines are considered to be comprehensive and often referred to as the global standard (D'Aquila, 2018; Gamerschlag et al., 2011; Hussey et al., 2001). GRI develops indicators and guidelines that promote disclosure for quality sustainability reporting practices akin to that of firm's financial reporting in thoroughness, comparability, and global recognition (H. S. Brown et al., 2009).

GRI G4 sustainability reporting guidelines provide two options to an organization in preparing its sustainability report and each option can be used by any organization, irrespective of their sector, size, or location. They are the core option and the comprehensive option (GRI, 2015). The core option covers all the essential features of sustainability report which enable organization to communicate the effects of its environmental, economic, and social and governance performance, while the comprehensive option build on the former option to make additional standard disclosures of the organization as it relates to its strategy and analysis, governance, and integrity and ethics. These enable the organization to communicate its performance in detail. However, any organization is free to choose the option best suitable for its reporting needs and which will ultimately meet the information needs of its stakeholders, and by extension, the options do not suggest the quality of the report or the performance of the organization (GRI, 2015).

This study uses the core option in line with some previous studies (Bhatia & Tuli, 2017; Chang et al., 2019a; Dienes et al., 2016; Gamerschlag et al., 2011). The justification to use the core option for the study is that it contains the essential elements required to prepare sustainability reports, which all organizations that use GRI guidelines must adopt, whereas, in comprehensive option, part of the additional disclosures that make up the comprehensive option are reported in annual reports of every organization as standard disclosures. Hence, to avoid incomparability and ambiguity of sample reports, the study uses the disclosures that are mandated by all the organizations reporting on sustainability with the GRI guidelines. The Financial Services Sector Supplement (FSSS) was developed to encourage financial institutions to report the financial service sectors (FSS) indicators over and above GRI G4 (general) indicators (GRI, 2015). Table 3.1 lists the GRI specific standard (core) disclosures version 4.

Table 3.2: The GRI G4 Performance Indicators

	GRI-G4	**GLOBAL REPORTING INITIATIVES**
	SSD	**SPECIFIC STANDARD DISCLOSURES**
CATEGORY	**ECONOMIC**	
1	G4-EC1	Direct economic value generated and distributed
2	G4-EC2	Financial implications and other risks and opportunities due to climate change

3	G4-EC3	Coverage of benefit plan
4	G4-EC4	Financial assistance received from government
5	G4-EC5	Ratios of standard entry level wage by gender
6	G4-EC6	Proportion of senior management hired from the local community
7	G4-EC7	Infrastructure investments and service supported
8	G4-EC8	Significant indirect economic impacts
9	G4-EC9	Proportion of spending on local suppliers
CATEGORY	**ENVIRONMENTAL**	
10	G4-EN1	Materials used by weight or volume
11	G4-EN2	Recycled input materials used
12	G4-EN3	Energy consumption within the organization
13	G4-EN4	Energy consumption outside the organization
14	G4-EN5	Energy intensity
15	G4-EN6	Reduction of energy consumption
16	G4-EN7	Reductions in energy requirements of products and services
17	G4-EN8	Water withdrawal by source
18	G4-EN9	Water sources significantly affected by withdrawal of water
19	G4-EN10	Water recycle and reused
20	G4-EN11	Operational sites around high biodiversity value
21	G4-EN12	Significant impacts of activities, products, and services on biodiversity
22	G4-EN13	Habitats protected or restored
23	G4-EN14	IUCN Red List species and national conservation list species with habitats in areas affected by operations
24	G4-EN15	Direct (Scope 1) GHG emissions
25	G4-EN16	Energy indirect (Scope 2) GHG emissions
26	G4-EN17	Other indirect (Scope 3) GHG emissions
27	G4-EN18	GHG emissions intensity
28	G4-EN19	Reduction of GHG emissions
29	G4-EN20	Emissions of ozone-depleting substances (ODS)
30	G4-EN21	Nitrogen oxides (NOx), Sulfur oxides (SOx), and other significant air emissions
31	G4-EN22	Water discharge by quality and destination

32	G4-EN23	Waste by type and disposal method
33	G4-EN24	Significant spills
34	G4-EN25	Transport of hazardous waste
35	G4-EN26	Water bodies affected by water discharges and /or runoff
36	G4-EN27	Impact mitigation
37	G4-EN28	Reclaimed products and their packaging materials
38	G4-EN29	Non-compliance with environmental laws and regulations
39	G4-EN30	Transportation impacts
40	G4-EN31	Total environmental protection expenditures and investments by type (waste disposal, emissions treatment, remediation costs, prevention cost, and environmental management cost)
41	G4-EN32	New suppliers that were screened using environmental criteria
42	G4-EN33	Negative environmental impacts in the supply chain and actions taken
43	G4-EN34	The management approach and its components
CATEGORY	**SOCIAL**	
	SUB-CAT	**LABOUR PRACTICES AND DECENT WORK**
44	G4-LA1	New employee hires and employee turnover
45	G4-LA2	Benefits provided to full-time employees that are not provided to temporary or part-time employees
46	G4-LA3	Parental leave
47	G4-LA4	Minimum notice periods regarding operational changes
48	G4-LA5	Worker's representation in formal joint management worker health and safety committees
49	G4-LA6	Occupational diseases and injury and absenteeism
50	G4-LA7	Workers with high incidence or high risk of diseases related to their occupation
51	G4-LA8	Health and safety topics covered in formal agreements with trade unions
52	G4-LA9	Average hours of training per year per employee
53	G4-LA10	Programs for upgrading employee skills and transition assistance programs
54	G4-LA11	Percentage of employees receiving regular performance and career development reviews
55	G4-LA12	Diversity of governance bodies and employees
56	G4-LA13	Ratio of basic salary and remuneration of women to men

57	G4-LA14	New suppliers that were screened using social criteria
58	G4-LA15	Negative social impacts in the supply chain and actions taken
59	G4-LA16	The management approach and its components
	SUB-CAT	**HUMAN RIGHTS**
60	G4-HR1	Significant investment agreement with human right clauses
61	G4-HR2	Employee training in human rights policies or procedures
62	G4-HR3	Incidents of discrimination and corrective actions taken
63	G4-HR4	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk
64	G4-HR5	Operations and suppliers at significant risk for incidents of child labour
65	G4-HR6	Operations and suppliers at significant risk for incidents of forced or compulsory labour
66	G4-HR7	Security personnel trained in human rights policies or procedures
67	G4-HR8	Incidents of violations involving rights of indigenous people
68	G4-HR9	Operations that have been subject to human rights reviews or impact assessments
69	G4-HR10	New suppliers that were screened using social criteria
70	G4-HR11	Negative social impacts in the supply chain and actions taken
71	G4-HR12	The management approach and its components
	SUB-CAT	**SOCIETY**
72	G4-SO1	Operation with local community engagement, impact assessments, and development programs
73	G4-SO2	Operations with significant actual and potential negative impacts on local communities
74	G4-SO3	Operations assessed for risks related to corruption
75	G4-SO4	Communication and training on anti-corruption policies and procedures
76	G4-SO5	Confirmed incidents of corruption and actions taken
77	G4-SO6	Political contributions
78	G4-SO7	Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices

79	G4-SO8	Non-compliance with laws and regulations in the social and economic area
80	G4-SO9	New suppliers that were screened using social criteria
81	G4-SO10	Negative social impacts in the supply chain and actions taken
82	G4-SO11	The management approach and its components
	SUB-CAT	**PRODUCT RESPONSIBILITY**
83	G4-PR1	Assessment of the health and safety impacts of product and service categories
84	G4-PR2	Incidents of non-compliance concerning the health and safety impacts of products and services
85	G4-PR3	Requirements for product and service information and labelling
86	G4-PR4	Incidents of non-compliance concerning product and service information and labelling
87	G4-PR5	Approach to stakeholder engagement
88	G4-PR6	Activities, brands, products, and services
89	G4-PR7	Incidents of non-compliance concerning marketing communications
90	G4-PR8	Substantiated complaints concerning breaches of customer privacy and losses of customer data
91	G4-PR9	Non-compliance with laws and regulations in the social and economic area
	FSSSD	
92	FS1	Policies with specific environmental and social components applied to business lines
93	FS2	Procedures for assessing and screening environmental and social risks in business lines
94	FS3	Processes for monitoring clients' implementation of and compliance with environmental and social requirements included in agreements or transactions (EQUATOR PRINCIPLES)/RESPONSIBLE LENDING & MARKETING
95	FS4	Process(es) for improving staff competency to implement the environmental and social policies and procedures as applied to business lines (TRAINING)/ EMPLOYEE ENGAGEMENT

96	FS5	Interactions with clients/ investees/business partners regarding environmental and social risks and opportunities (STAKEHOLDER ENGAGEMENT)
97	FS6	Percentage of the portfolio for business lines by specific region, size (e.g., micro/sme/large) and by sector
98	FS7	Monetary value of products and services designed to deliver a specific social benefit for each business line broken down by purpose (product or service that benefits a segment of society or society at large. An activity which targets an underserved, neglected, or highly disadvantaged population)
99	FS8	Monetary value of products and services designed to deliver a specific environmental benefit for each business line broken down by purpose (products and services designed with an explicit aim to address environmental issues, e.g. products designed to provide renewable energy, address water scarcity, enhance biodiversity, improve energy efficiency, etc.
100	FS9	Coverage and frequency of audits to assess implementation of environmental and social policies and risk assessment procedures
101	FS10	Percentage and number of companies held in the institution's portfolio with which the reporting organization has interacted on environmental or social issues (CLIENT ENGAGEMENTS) (OR DOES THE COY HAS MEMBERSHIP OF EQUATOR PRINCIPLES?)
102	FS11	Percentage of assets subject to positive and negative environmental or social screening (OR DOES THE COY HAS MEMBERSHIP OF EQUATOR PRINCIPLES?)
103	FS12	Voting policy(ies) applied to environmental or social issues for shares over which the reporting organization holds the right to vote shares or advises on voting (if any guidelines exist for voting on environmental or social issues, describe the primary aspects covered and explain circumstances under which significant deviations are allowed)
104	FS13	Access points in low-populated or economically disadvantaged area by type (Financial services should be reasonably accessible to all customers within the regions

		where the financial institution operates. Point of access include all those points of transactions where customers can access the basic financial services provided by the financial institution)
105	FS14	Initiative to improve access to financial services for disadvantaged people
106	FS15	Policies for the fair design and sale of financial products and services (it is to identify how the reporting organization manages potential conflicts of interest and how the institution encourages use of products, services, and advice in a fair and reasonable manner (CLIENTS)
107	FS16	Initiative to enhance financial literacy by type of beneficiary (i.e enhancing financial literacy represents an opportunity to improve the sophistication of their customer base, its ability to use products and services and to address issues of over indebtedness, social exclusion, and other financial risks)

Sources: Adapted from GRI (2013) and GRI (2015)

- **Disclosure Index**

Disclosure index is referred to the level or degree of disclosure that is made by the sampled firms. It is regarded as a vital tool, generally adopted for disclosure research index after the ground-breaking study in 1961 (Marston & Shrives, 1991) The primary goal of the disclosure index is to evaluate the level of disclosure in terms of quality and quantity of information provided by firms in their annual or standalone reports. Furthermore, the disclosure index is an effective process to explain the differences in the amount of information that firms disclosed. Hooks and van Staden (2011) describe disclosure index as a qualitative-based instrument, which is designed to measure sequence of items that when the scores are aggregated will result to a surrogate score to represent the disclosure level in the precise context for the purpose which the index was created. Thus, a disclosure index may be constructed to permit changes or variations in the quality of each item of information in the disclosure by including an assessment scale, where each score allocated indicates a certain level or quality of disclosure (Hooks & van Staden, 2011).

- **Scoring of Disclosure Index**

Scoring a disclosure index is by assigning weights to every item of information in the index. There are two main methods that are employed in the empirical literature to obtain the levels of disclosure: weighted and un-weighted methods (Cooke, 1989). The weighted scheme, which was promoted by Copeland and Fredericks (1968), depend on the presentation of information. The authors use the number of words to illustrate the disclosed item. Thus, the weighted scale scheme of disclosure changes, spreading from zero to one. Conversely, the weighted scheme met with some criticisms from Cooke (1989), since it creates personal subjectivity in connection to the process of distribution of scores while the author proposes an alternative method, called a dichotomous process or an un-weighted approach. Under the dichotomous approach, an information item that is not disclosed in the annual reports gets the value of zero, and if disclosed, it gets the value of one. The disclosure index is further debated among researchers being a measurement technique (Barako, 2007; Hassan & Marston, 2019). While the crucial proposition of the un-weighted disclosure index hinges on the assumption that all items of information in the index are equally important to the stakeholders and to be treated equally, the weighted disclosure index believes that the comparative importance of various items included in the disclosure index is not equal in the opinion of user group and differs from one item to another.

Subsequently, the weighted approach focuses on the significance of the items of information in the index and allocates weights to each item (Botosan, 1997; Chow & Wong-Boren, 1987; Eng, Hong, & Ho, 2001; Firer & Meth, 1986). Meanwhile, proponents of a weighted index technique presume that weighted disclosure scores are considered as a legitimate proxy for assessing and measuring the extent and quality of disclosure. Furthermore, the subjectivity in weighing all information items in the index is inconsequential to the measurable quality of the disclosure items, hence, the approach may serve the purpose of lowering the problems of subjectivity (Barako, 2007; Botosan, 1997). The study adopts weighted disclosure scoring index, which introduces assessment scale to the GRI G4 sustainability guidelines on the premise that, all information items disclosed in the annual and standalone reports of the companies under review cannot be of equal importance as supported by other researchers (Barako, 2007; Guthrie & Parker, 1990; Hasseldine, Salama, & Toms, 2005; Hooks & van Staden, 2011). .

The weighted scoring disclosure model is constructed in accordance to Bhatia and Tuli (2017) that measured quality disclosure on a four-point scale (0-3). The scoring model was reviewed by two sustainability experts to preserve reliability. Other researchers used similar assessment scale, which is weighted disclosure model to allow variations in the quality of information in the reports rather than using the unweighted approach of presence or absence that measure only volume of information (Castelo Branco & Lima Rodrigues, 2006; Cormier & Gordon, 2001; Guthrie & Parker, 1990; Hasseldine et al., 2005).

The study uses ordinal measuring scale. Jakobsson (2004) claims that a variable could be split into nominal, ordinal, interval, and ratio data. Nominal data is the least level of data' and this type of data can be categorized, and rate of recurrence calculated in each category. While Ordinal data is a quantitative data, that is created when observations are positioned into ordered categories with set scale (Jakobsson, 2004). This type of data relates to the evaluation of subjective data of an actual scenario that cannot be measured. The four-point assessment scale that the study uses to evaluate the Quality Sustainability Reports Index is a typical example of ordinal scale. Interval and ratio data are numerical data with consistent spacing of which interval data has no true zero, but ratio data has a definite zero point. The Core option of GRI G4 and FSS guidelines that contains 107 items of sustainability disclosure information, which have been categorised into the following: Economics 9 items, Environmental 34 items, Social 48 items, and FSSS 16 items (GRI, 2015) as shown in Table 3.2. These disclosure indices are akin to the disclosure items developed by previous studies (Gamerschlag et al., 2011; Hooks & van Staden, 2011; M. A. Islam et al., 2016; M. N. Islam & Chowdhury, 2016).

The study, therefore, uses a four-point assessment scale (0-3) to measure the quality of information in the firms' sustainability reports: 0 for unreported item; 1 for reported but not quantified or applied; 2 for being reported, quantified, or applied, and 3 for item reported and indexed. The quality reporting index and the scoring scale result in a total possible score of 321 points, with the following points breakdown per index theme: Economic (27), Environmental (102), Labour Practices and Decent Work (48), Human Rights (36), Society (33), Product Responsibility (27), Financial Services Sector Supplement (48). The level of Quality Sustainability Reporting Index (QSRI) for each

firm is calculated by dividing the total number of items that each firm disclosed in the standalone sustainability by the total number of items that the firm is expected to disclose:

QSRI

$$\sum_{1}^{j}\sum_{i=1}^{n} xij$$

Where:

j. Number of companies (81 final companies in the sample)

xij. 0 if the item has not been reported.

xij. 1 if the item has been reported but not quantified.

xij. 2 if the item has been reported, quantified, but not indexed.

xij. 3 if the item has been reported and indexed.

Table 3.3 show the sample of the unmodified hand-collected data with the use of content analysis techniques by using four-point assessment scale to evaluate quality sustainability reporting index. The score and source from which the scores were assess are stated in the table. The comprehensive modified table is shown in Appendix 05.

Table 3.3: Sample of the unmodified hand-collected data using Content Analysis techniques

		DEPENDENT VARIABLES	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018
GRI-G4		GLOBAL REPORTING INITIATIVES G4					ITALY				JAPAN				UK			
SSD		SPECIFIC STANDARD DISCLOSURES	WENDEL-1		BNP		GENERALI		UNIPOL		MS&AD		SMFG		BARCLAYS		HSBC	
FS1	Policies with specific environmental and social components applied to business lines	Policies with specific environmental and social components applied to business lines	1	RD/243	1	IT/36	1	SSR/24	1	SR/83	0		2	CSRR:27,108	1	ESGR/36	2	ESG/35
FS2	Procedures for assessing and screening environmental and social risks in business lines (RESPONSIBLE INVESTMENT)	Procedures for assessing and screening environmental and social risks in business lines	1	RD/232	2	IT/36	2	SSR/6,51	1	SR/41	2	SR/23,24	2	CSRR:27-32	2	ESGR/23,47	2	ESG/34
FS3	Processes for monitoring clients' implemetation of and compliance with environmental and social requirements included in agreements or transactions (EQUATOR PRINCIPLES)/RESPONSIBLE LENDING &	Processes for monitoring clients' implementation of and compliance with environmental and social requirements included in agreements or transactions	1	RD/232	2	IT/36	2	SSR/6,51	1	SR/41	2	SR/23,24	2	CSRR:27-32	2	ESGR/23	2	ESG/34
FS4	Process(es) for improving staff competency to implement the environmental and social policies and procedures as applied to business lines (TRAINING/ EMPLOYEE ENGAGEMENT	Process(es) for improving staff competency to implement the environmental and social policies and procedures as applied to business lines	2	RD/217	2	IT/32	2	SSR/30	2	SR/73	2	SR,186	2	CSRR:11	2	ESGR:52	2	ESG/27
FS5	Interactions with clients/ investees/business partners regarding environmental and social risks and opportunites (STAKEHOLDER ENGAGEMENT) (G4-26)	Interactions with clients/investees/buiness partners regarding environemtal and social risks and opportunities (PR5)	2	RD/246	2	IT/10	1	SSR/18	2	SR/80	2	SR/18	2	CSRR/35	2	ESGR/8	2	ESG/37
FS6	Percentage of the portfolio for business lines by specific region, size (e.g. micro/sme/large) and by sector (lending products &services-debt financing)	Percentage of the portfolio for business lines by specific region, size (e.g. micro/sme/large) and by sector	1	RD/26	0		0		1	SR/41	0		2	CSRR/32,70-72	2	EGGR/44-46	0	
FS7	Monetary value of products and services designed to deliver a specific social benefit for each business line broken down by purpose (product or service that benefits a segment of society or society at large. In particular, an activity which targets an underseved, neglected, or highly disadvantaged population)	Monetary value of products and services designed to deliver a specific social benefit for each business line broken down by purpose (Philantrophist)	2	RD/240	2	IT/38,51	0		2	SR/80	2	SR/243	1	CSRR:151	2	ESGR/60	2	ESG/33
FS8	Monetary value of products and services designed to deliver a specific environmental benefit for each business line broken down by purpose (products and services designed with an explicit aim to address environmental issues , e.g. products designed to provide renewable energy, address water scarcity, enhanve biodiversity, improve energy efficiency, etc.	Monetary value of Products and Services designed to deliver an environmental benefit for each business line broken down by purpose	2	RD/240	2	IT/38,51	0		2	SR/80	1	SR/200,226	1	CSRR:150-156	2	ESGR/62	1	ESG/32
Assurance is mandated in Europe (see pg 46 of LSE 2016) FS9	Coverage and frequency of audits to assess implementation of environmental and social policies and risk assessment procedures	Coverage and frequency of audits to assess implementation of environmental and social policies and risk assessment procedures. (Audits & Assurance) (Audit and Risk Committee) (G4-33)	1	RD/366	0		0		0		2	SR/251	2	CSRR/17	2	ESGR/68	1	ESG/37

3.3.7 Data Analysis

The data analysis gives relevance to the data collected. The study employs quantitative method to collect secondary data that is analysed by using Stata statistical software package version 15. Stata is good for cutting edge research and extraordinary on regression analysis. It is a potent statistical software that has excellent programmes for panel data analysis and enables users to analyse, manage, and generate graphical visualisation of data. The following empirical models formulated to predict the variation in the quality of sustainability reporting consequence to the change in Financial Leverage (FL), Board Composition (BC), Ownership Structure (OS), Audit Committee (AC), Firm Age (FA), Corporate Visibility (CV), and Listing Status (LS) with and without controlling Profitability (ROE) and Firm Size (FS), to decide the case that explain better the variability in the Quality Sustainability Reporting Practices:

Model 1a:

$$\mathbf{SQRI} = \beta_0 + \beta_1 FL + \beta_2 BC + \beta_3 OS + \beta_4 AC + \beta_5 FA + \beta_6 CV + \beta_7 LS + \beta_8 ROE + \beta_9 FS + \varepsilon$$

Model 1b:

$$\mathbf{SQRI} = \beta_0 + \beta_1 FL + \beta_2 BC + \beta_3 OS + \beta_4 AC + \beta_5 FA + \beta_6 CV + \beta_7 LS + \beta_8 ROE + \beta_9 FS + DVBANK + \varepsilon$$

Model 2:

$$\mathbf{ECDI} = \beta_0 + \beta_1 FL + \beta_2 BC + \beta_3 OS + \beta_4 AC + \beta_5 FA + \beta_6 CV + \beta_7 LS + \beta_8 ROE + \beta_9 FS + \varepsilon$$

Model 3:

$$\mathbf{ENDI} = \beta_0 + \beta_1 FL + \beta_2 BC + \beta_3 OS + \beta_4 AC + \beta_5 FA + \beta_6 CV + \beta_7 LS + \beta_8 ROE + \beta_9 FS + \varepsilon$$

Model 4:

$$\mathbf{LDI} = \beta_0 + \beta_1 FL + \beta_2 BC + \beta_3 OS + \beta_4 AC + \beta_5 FA + \beta_6 CV + \beta_7 LS + \beta_8 ROE + \beta_9 FS + \varepsilon$$

Model 5:

$$\mathbf{HRDI} = \beta_0 + \beta_1 FL + \beta_2 BC + \beta_3 OS + \beta_4 AC + \beta_5 FA + \beta_6 CV + \beta_7 LS + \beta_8 ROE + \beta_9 FS + \varepsilon$$

Model 6:

$$\mathbf{SODI} = \beta_0 + \beta_1 FL + \beta_2 BC + \beta_3 OS + \beta_4 AC + \beta_5 FA + \beta_6 CV + \beta_7 LS + \beta_8 ROE + \beta_9 FS + \varepsilon$$

Model 7:

$$\mathbf{PRDI} = \beta_0 + \beta_1 FL + \beta_2 BC + \beta_3 OS + \beta_4 AC + \beta_5 FA + \beta_6 CV + \beta_7 LS + \beta_8 ROA + \beta_9 FS + \varepsilon$$

Model 8:

$$\mathbf{FSDI} = \beta_0 + \beta_1 FL + \beta_2 BC + \beta_3 OS + \beta_4 AC + \beta_5 FA + \beta_6 CV + \beta_7 LS + \beta_8 ROA + \beta_9 FS + \varepsilon$$

QSRI = Quality Sustainability Reporting Index

ECDI = Economic Disclosure Index

ENDI = Environmental Disclosure Index

LPDI = Labour Practices and Decent Work Disclosure Index

HRDI = Human Right Disclosure Index

SODI = Society Disclosure Index

PRDI = Product Responsibility Disclosure Index

FSDI = Financial Services Sector Supplementary Disclosure Index

FL = Financial Leverage

BC = Board Composition

OS = Ownership Structure

AC = Audit Committee

FA = Firm Age

CV = Corporate Visibility

LS = Listing Status

ROA = Return on Asset

FS = Firm Size

DVBANK = Dummy Variables, which takes the value of 1 if the company is Banking Institution, 0 otherwise.

3.3.8 Measurement of Variables

3.3.8.1 Dependent Variable

The dependent variable in this research is quality sustainability reporting, which is measured by quality sustainability reporting index (QSRI) as explained in section 3.4.6. The response variable comprises of economic, environmental, and social performance indicator and by extension financial services sector supplementary disclosures (FSSSD), which is required to be used by every organization in the financial services sector.

3.3.8.2 Measuring Independent Variables

The independent variables are firm characteristics that become the driving factors that influence reporting practice. Thus, the five independent variables used in this research are measured as follows:

- **Financial Leverage**

From the perspective of agency theory, another factor that relates to a larger amount of information disclosure is financial leverage. Firms with more debt carry greater agency costs because there is tendency to covert wealth from debt holder to shareholders. When firms increase the amount of their information disclosures, corporations can lower their agency costs and possible conflicts of interest between the creditors and the owners. Leverage is measure by the ratio of total debt to equity (Brammer & Pavelin, 2006; Prado-Lorenzo, Gallego-Alvarez, & Garcia-Sanchez, 2009; Jason Zezhong Xiao et al., 2004)

- **Board Composition**

Board Composition (BC) is measured in different ways (number of meetings of board of directors, number of meetings of audit board, number of audit committee meetings, number of independent board members, existence of sustainability board, existence of governance board and chief executive officer duality)(Amran et al., 2014; Dienes et al., 2016; Herda et al., 2012; Mohammed Hossain & Reaz, 2007; Jizi et al., 2014; Prado-Lorenzo et al., 2009; D. Rouf, 2011; Said et al., 2009; Shamil et al., 2014).

The study uses number of independent and non-executive board members (NINEBM) as a measure of Board Composition. The independent board members have no

professional or personal affiliation with the company. They are also known as external directors. They have an integral role in the board as their presence help a company to separate the tasks of management and control, which is expected to offset the opportunistic behaviours of the inside members (Jensen & Meckling, 1976).

The study measures Board Composition by using the board composition of the ratio of independence directors to the total board of directors of the firm (Mohammed Hossain & Reaz, 2007; Nandi & Ghosh, 2013; Shamil et al., 2014).

- **Ownership Structure**

Ownership structure is measured by the percentage of total shares outstanding that belong to the institutional investors since they are involved in corporate sustainability because it is believed to build mitigation pressures and long-term reputation from the group of external activists (Boone & White, 2015; Soliman, El Din, & Sakr, 2013). Other researchers use the percentage of total shares outstanding held by foreign investors as a measure of ownership structure, showing that the presence of foreign investors substantially influence the processing mechanism of corporate information and increase the level of voluntary disclosures (Faller & zu Knyphausen-Aufseß, 2018; Sartawi, Hindawi, & Bsoul, 2014). This study measures ownership structures by the percentage of total shares that are being held by institutional investors.

- **Audit Committee**

The presence of an audit committee considerably influences the level of the corporate disclosure of a company. Hence, some studies measure the presence of audit committee the total number of members that are serving on the committee (Appuhami & Tashakor, 2017; Omair Alotaibi & Hussainey, 2016). Some other scholars use the number of meetings held by the audit committee per financial year independent members to the audit committee size as measurement of audit committee (Buallay & Al-Ajmi, 2020; Herda et al., 2012; J. Li et al., 2012). This study, therefore, measures the audit committee by the size of its membership.

- **Firm Age**

The age of the firm is measured by the number of years since the firm's inception or establishment (Bayoud et al., 2012; Bhatia & Tuli, 2017; Dienes et al., 2016; Liu & Anbumozhi, 2009; Marquis & Qian, 2013; Shamil et al., 2014). Bayoud et al. (2012) find a positive relationship between firm age and CSR disclosure when using number of years of establishment as proxy for firm age. On the other hand, Shamil et al. (2014) and Marquis and Qian (2013) find a negative relationship by using number of years of establishment to measure the firm age. This study measures firm age by using natural log of the number of years of establishment.

- **Corporate Visibility**

Visibility is measured by number of hints in magazines or journals (Kent & Monem, 2008; Michelon, 2011; Jianling Wang, Song, & Yao, 2013) or measured by hints in particular newspaper rankings (Gamerschlag et al., 2011). All the four studies found a positive significant relationship between visibility and CSR disclosure. Another study uses the number of branches of the firm as a proxy for visibility, hence the firm with larger number of branches will be considered as having greater visibility and expect to report more sustainability information (Castelo Branco & Lima Rodrigues, 2006). This study uses number of hits in all publications (magazines, journals, and newspaper headlines). This is made possible using Factiva international news database, which is produced by Dow Jones.

- **Listing Status**

Listing status is measured on number of stock exchange listing basis, which is by the number of foreign exchange stock market the company is listed. This uses 2 and above for company that is cross listed on another stock exchanges other than the home exchange, otherwise 1 for listing on home exchange only. This is consistent with other researchers who used listing status as one of the determinant variables for sustainability reporting practices (Castelo Branco & Lima Rodrigues, 2006; Mohammed Hossain & Reaz, 2007; Reverte, 2009; Webb, Cahan, & Sun, 2008).

3.3.8.3 Measuring Control Variables

The two control variables used in the study are discussed in this section. The first control variable is profitability, while the second variable is firm size. These two variables are controlled so they do not impact on the results.

- **Profitability**

Previous researchers have measured profitability by return on assets (ROA), return on equity (ROE), return on invested capital (ROIC), earning per share (EPS), and profit margin (Bhatia & Tuli, 2017; Brammer & Pavelin, 2006; Clarkson et al., 2008; Dienes et al., 2016; Gamerschlag et al., 2011; Hahn & Kühnen, 2013; Qiu, Shaukat, & Tharyan, 2016; Vitezić, Vuko, & Mörec, 2012). Vitezić et al. (2012), Sharif and Rashid (2014), and H.-U.-Z. Khan (2010) found a positive association between CSR disclosure and return on equity (ROE), whereas, Michelon (2011) as well as Andrikopoulos, Samitas, and Bekiaris (2014) show result of no significant relationship between ROE and CSR disclosure. This study uses return on equity (ROE) to measure the firm profitability.

- **Firm size**

Firm size is measured in a variety of ways, which include; the natural log of total assets, the natural log of total sales, the log of market value of equity, the natural log of one plus firm age in years, balance sheet total, the total number of owners, and the total number of employees at the firm (Andrikopoulos et al., 2014; Dalbor, Kim, & Upneja, 2004; Dang, Li, & Yang, 2018; Dienes et al., 2016; Hahn & Kühnen, 2013; Jennifer Ho & Taylor, 2007). Jianling Wang et al. (2013), Sharif and Rashid (2014) as well as Andrikopoulos et al. (2014) and (D. Rouf, 2011) found a positive relationship between CSR disclosure and firm size measuring firm size by balance sheet total. This study uses the natural logarithm of number of employees as proxy for firm size as used by Dilling (2010) who finds significant relationship between firm size and CSR disclosure.

CHAPTER FOUR

THE FINDINGS AND DISCUSSION OF RESULTS

CHAPTER FOUR
THE FINDINGS AND DISCUSSION OF RESULTS

The previous chapter provides detailed research design and methodology employed by the study. This chapter discuss the descriptive statistics, regression diagnostics test, and imperical result of the study.

4.1 Descriptive Statistics

Descriptive statistics is introduced in the research to generate an overview of the whole data set, which are the collection of the 220 firm-year observations in the research. The implementation of descriptive statistics in sustainability indicators help to show the prioritized indicators. The 107 indicators were grouped into 7 theme disclosures (Economic, Environmental, Labour Practices and Decent Work, Human Rights, Society, Product Responsibility, and Financial Services Sector Supplement) with 220 observations. Table 4.1 shows the mean scores and percentages. Environmental disclosure has the highest score among the themes with 33.25 mean scores and this followed by financial services sector supplement theme disclosure with 21.29 mean scores. The least disclosed theme is product responsibility with 6.29 mean scores.

Table 4.1: Percentage Mean Score of Level of Sustainability Reporting Themes

THEME	N	MEAN SCORE	PERCENTAGE
ECONOMIC	220	11.72273	10.41%
ENVIRONMENTAL	220	33.25909	29.54%
LABOUR PRACTICES AND DECENT WORK	220	18.56818	16.49%
HUMAN RIGHTS	220	10.23636	9.09%
SOCIETY	220	11.20909	9.96%
PRODUCT REPONSIBILITY	220	6.295455	5.59%
FINANCIAL SERVICES SECTOR SUPPLEMENT	220	21.29545	18.91%
TOTAL SCORES	**220**	**112.5864**	**100%**

The theme disclosure score in Table 4.1 is shown in the column bar chart in Figure 4.1 Environmental (EN) has the highest percentage of disclosure with 29.54 percent in sustainability reports. This is followed by financial services sector supplement (FS) 18.91 percent, labour practices and decent work (LW) 16.49 percent, economic (EC) 10.41 percent, society (SO) 9.96 percent, human rights (HR) 9.09 percent, and the least

reported theme is product responsibility (PR) with 5.59 percent. These results show that financial services sector disclose environmental information more than the other theme and followed by the labour related information. The results are consistent with some of the previous studies on sustainability reports.

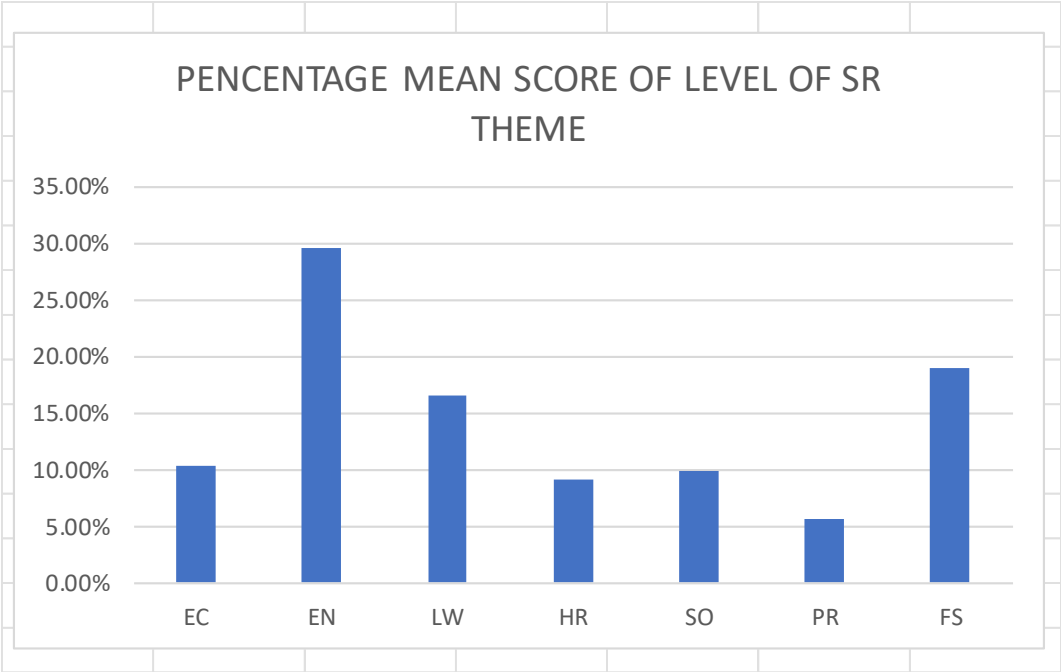

Figure 4.1: Graphical illustration of the Percentage Mean Score of Level of Sustainability Reporting Themes. The columns display the mean of the seven themes of sustainability reporting indicators: EC (economic), EN (environmental), LW (labour practices and decent work), HR (human rights), SO (society), PR (product responsibility), and FS (financial services sector supplement)

Vilar and Simão (2015) examine corporate social responsibility disclosure on the web with the consideration to major themes in the banking sector. The study shows that environmental management and socioeconomic programs information are mostly disclosed on financial institutions web sites. Although, Vilar and Simão (2015) claim that there is almost agreement around the notion that banking activity has a lowered environmental impact. However, since the environmental considerations have always been playing a significant role in project development, siting of projects and appropriate clearance of materials after the decommissioning of project, many financial institutions since 2003 have applied a risk management agenda or framework known as the Equator Principles, which are used in determining, evaluating, and managing environmental and social risk in project finance (Kumar & Prakash, 2020; Meyerstein, 2015; Silk & Lu, 2022).

4.1.1 Sustainability Theme Disclosures Across the G-7 Nations

The study in this section attempts to review the distribution of the theme disclosure scores among the Group of Seven Nations to rank the disclosure scores on country basis.

Table 4.2 and Figure 4.2 show the theme distribution scores and the graphical chart of the level of theme disclosures across the G-7 Nations. The United State of America has the highest disclosures in all the seven themes, EC 31.02 percent, EN 30.85 percent, LW 23.79 percent, HR 23.49 percent, SO 31.79 percent, PR 23.68 percent, and FS 24.65 percent. This is consistent with finding of Vilar and Simão (2015) in their study of major themes of CSR disclosure on web sites of banking sector of the group of four geographical areas in the globe, the study shows that North America has the larger percentage of CSR theme disclosures. Scholtens (2009) in his study on corporate social responsibility among the international banking industry shows that US is among the countries with highest scores in environmental performance disclosures.

Table 4.2: Level of Themes Disclosures across the G-7 Nations

COUNTRY	EC (%)	EN (%)	LW (%)	HR (%)	SO (%)	PR (%)	FS (%)
CAN	12.21%	8.80%	9.20%	9.81%	9.08%	10.25%	14.92%
FRA	10.59%	11.69%	13.88%	13.10%	8.64%	7.08%	11.55%
GER	11.36%	12.26%	14.17%	15.01%	14.27%	16.46%	9.67%
ITA	13.65%	11.36%	15.96%	11.94%	14.15%	20.14%	13.49%
JAP	9.50%	12.27%	10.38%	13.68%	9.94%	11.55%	11.50%
UK	11.67%	12.78%	12.61%	12.97%	12.12%	10.83%	14.22%
USA	31.02%	30.85%	23.79%	23.49%	31.79%	23.68%	24.65%

NB: CAN (Canada), FRA (France), GER (Germany), ITA (Italy), JAP (Japan), UK (United Kingdom), USA (United State of America)

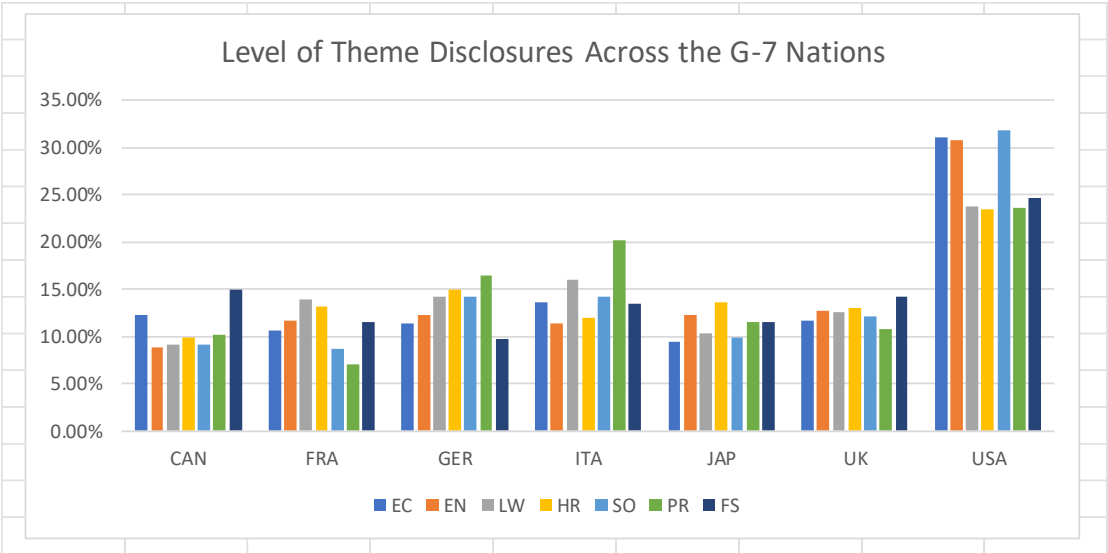

Figure 4.2: Graphical chart of the level of theme disclosures across the G-7 Nations

4.1.2 Theme Level of Distribution Scores

This section reviews the distribution of the weighted scoring technique from the employed content analysis approach to show the level of the sustainability disclosure in each theme by using GRI G4 sustainability disclosure framework.

Table 4.3 – 4.9 and Figure 4.3 – 4.9 show the scores distribution across the indicators on theme basis. The indicators are reported across 0-3 scores (0 = unreported, 1 = reported but not quantified, 2 = reported, quantified but not indexed, and 3 = Indexed).

Table 4.3: Percentage distribution of sustainability disclosure based on Economic Theme

THEME	ECONOMIC			
INDICATORS	0	1	2	3
EC1	0.45%	34.55%	19.09%	45.91%
EC2	6.36%	33.18%	25.91%	34.55%
EC3	2.27%	47.27%	23.64%	26.82%
EC4	83.18%	0.91%	0.00%	15.91%
EC5	59.09%	25.45%	2.73%	12.73%
EC6	53.18%	16.82%	14.09%	15.91%
EC7	7.73%	26.36%	36.82%	29.09%
EC8	60.45%	4.55%	2.27%	32.73%
EC9	45.00%	33.64%	4.55%	16.82%

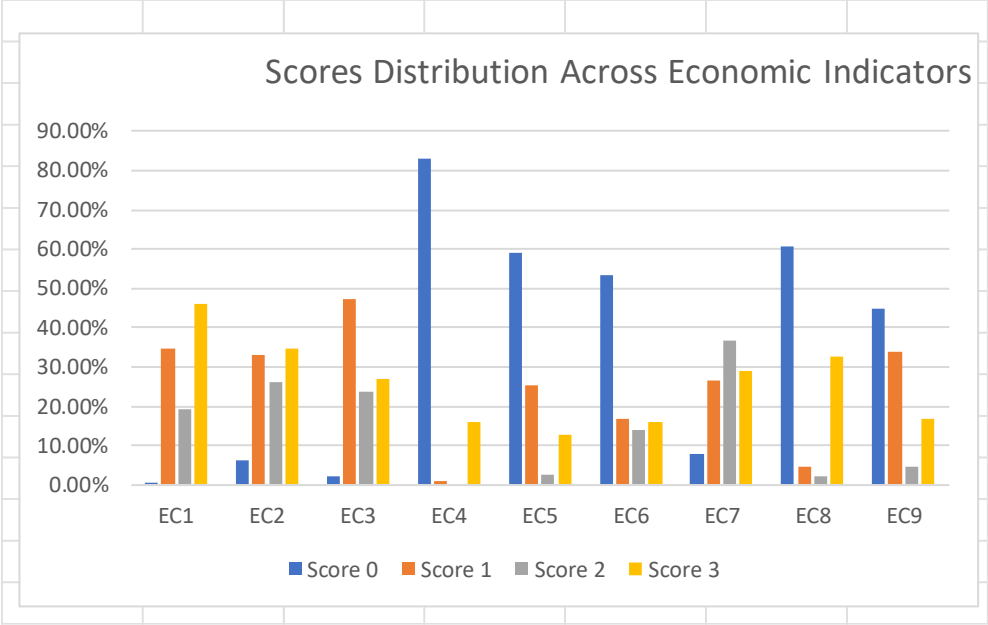

Figure 4.3: Scores Distribution across Economic Indicators

The graphical chart shows that EC4 (Financial assistance received from government) is the mostly undisclosed aspect in the framework under economic with 83.18 percent. EC3 (Coverage benefit plan) is the most disclosed aspect with 47.27 percent reported but not quantified. EC7 (Infrastructure investments and service supported) 36.82 percent is the most reported aspect that is quantified, while EC1 (Direct economic value generated and distributed) is the most reported aspect that is indexed with 45.91 percent.

Table 4.4: Percentage distribution of sustainability disclosure based on Environmental Theme

THEME	ENVIRONMENTAL			
INDICATORS	0	1	2	3
EN1	21.82%	18.64%	33.64%	25.91%
EN2	36.36%	18.64%	27.73%	17.27%
EN3	6.82%	20.45%	28.18%	44.55%
EN4	38.18%	19.09%	25.45%	17.27%
EN5	65.45%	2.27%	4.55%	27.73%
EN6	23.64%	16.36%	20.45%	39.55%
EN7	80.00%	0.91%	2.73%	16.36%
EN8	25.00%	17.73%	29.09%	28.18%
EN9	84.55%	5.00%	1.82%	8.64%
EN10	78.64%	8.18%	4.09%	9.09%
EN11	80.91%	9.55%	1.36%	8.18%
EN12	92.73%	0.45%	0.00%	6.82%
EN13	63.64%	24.09%	5.00%	7.27%
EN14	91.82%	1.82%	0.00%	6.36%
EN15	4.55%	14.09%	34.55%	46.82%

EN16	5.00%	13.64%	33.64%	47.73%
EN17	12.73%	16.36%	30.00%	40.91%
EN18	58.64%	1.82%	8.64%	30.91%
EN19	19.55%	16.36%	27.27%	36.82%
EN20	87.73%	0.91%	0.91%	10.45%
EN21	86.36%	0.91%	1.82%	10.91%
EN22	75.00%	11.36%	11.36%	2.27%
EN23	15.45%	21.36%	31.82%	31.36%
EN24	92.27%	1.36%	0.45%	5.91%
EN25	91.36%	0.91%	0.00%	7.73%
EN26	88.64%	2.27%	2.27%	6.82%
EN27	79.55%	2.27%	0.45%	17.73%
EN28	90.91%	2.27%	0.00%	6.82%
EN29	68.18%	4.09%	0.00%	27.73%
EN30	22.73%	20.00%	34.09%	23.18%
EN31	20.91%	40.45%	25.00%	13.64%
EN32	27.27%	51.36%	3.64%	17.73%
EN33	53.18%	37.73%	8.18%	0.91%
EN34	75.91%	14.09%	9.55%	0.45%

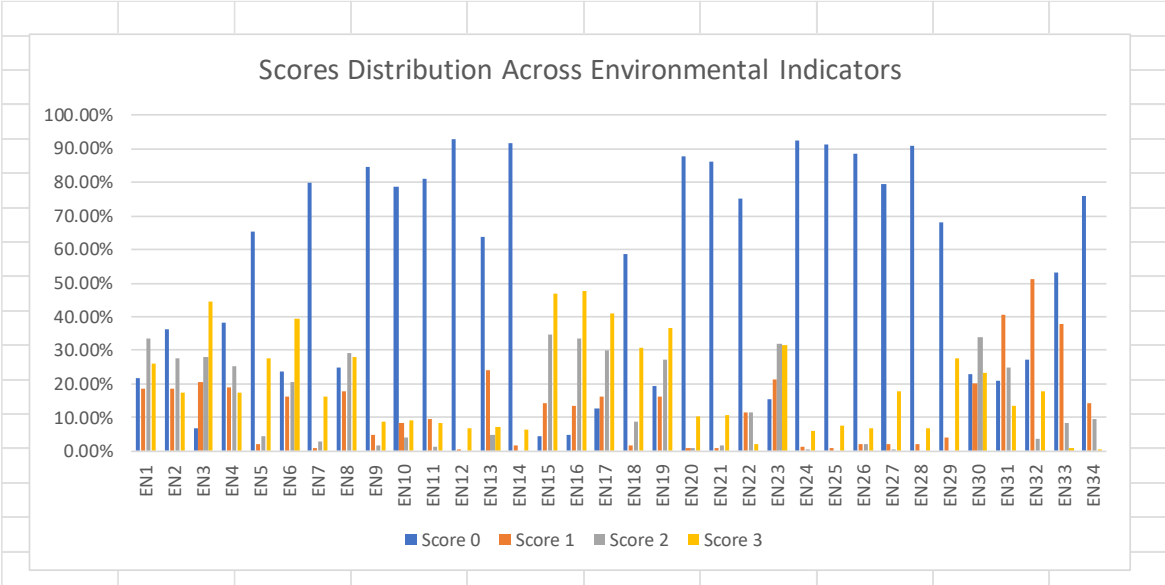

Figure 4.4 : Scores Distribution across Environmental Indicators

The graphical chart shows that EN12 (Significant impacts of activities, products, and services on biodiversity) is the mostly undisclosed aspect in the framework under environmental with 92.73 percent. EN32 (New suppliers that were screened using environmental criteria) is the most disclosed aspect, that is not quantified with 51.36 percent. EN15 (Direct-Scope 1-GHG emissions) 34.55 percent is the most reported

aspect that is quantified, while EN16 (Energy indirect-Scope 2-GHG emissions) is the most reported aspect that is indexed with 47.73 percent.

Table 4.5: Percentage distribution of sustainability disclosure based on LPDW Theme

THEME INDICATORS	LABOUR PRACTICES AND DECENT WORK (LPDW)			
	0	**1**	**2**	**3**
LA1	22.27%	18.18%	24.55%	35.00%
LA2	45.45%	21.82%	2.27%	30.45%
LA3	45.45%	8.64%	33.18%	12.73%
LA4	80.00%	0.91%	0.00%	19.09%
LA5	63.18%	13.64%	5.45%	17.73%
LA6	50.45%	6.36%	20.00%	23.18%
LA7	78.18%	5.00%	5.45%	11.36%
LA8	60.00%	22.27%	5.91%	11.82%
LA9	23.18%	20.91%	21.82%	34.09%
LA10	2.73%	15.91%	49.55%	31.82%
LA11	19.09%	28.64%	23.18%	29.09%
LA12	4.09%	20.91%	30.00%	45.00%
LA13	44.09%	26.82%	5.00%	24.09%
LA14	54.55%	29.09%	12.27%	4.09%
LA15	51.82%	39.55%	0.00%	8.64%
LA16	71.36%	15.91%	11.36%	1.36%

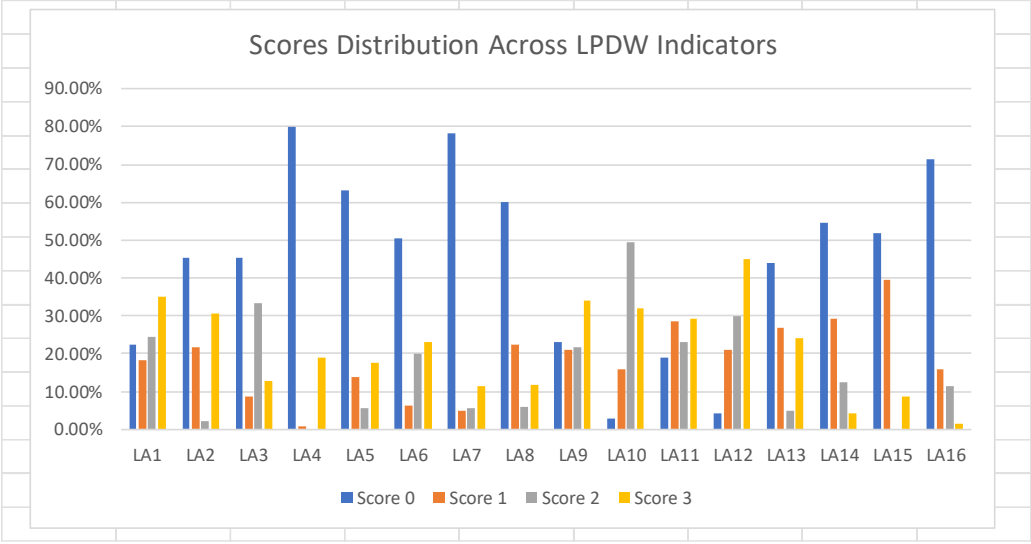

Figure 4.5: Scores Distribution across LPDW

LA4 (Minimum notice periods regarding operational changes) in the graphical chart is the mostly undisclosed aspect in the framework under labour practices and decent work

with 80 percent. LA15 (Negative social impacts in the supply chain and actions taken) is the most disclosed aspect, that is not quantified with 39.55 percent. LA10 (Programs for upgrading employee skills and transition assistance programs) 49.88 percent is the most reported aspect that is quantified, while LA12 (Diversity of governance bodies and employees) is the most reported aspect that is indexed with 45 percent.

Table 4.6: Percentage distribution of sustainability disclosure based on Human Rights Theme

THEME	HUMAN RIGHTS			
INDICATORS	0	1	2	3
HR1	13.18%	38.64%	27.73%	20.45%
HR2	37.27%	30.91%	10.00%	21.82%
HR3	65.00%	13.18%	3.18%	18.64%
HR4	53.64%	17.27%	14.09%	15.00%
HR5	47.27%	22.73%	18.18%	11.82%
HR6	48.18%	22.27%	17.73%	11.82%
HR7	37.27%	41.82%	12.27%	8.64%
HR8	89.55%	1.82%	0.45%	8.18%
HR9	74.09%	12.73%	3.64%	9.55%
HR10	24.55%	56.36%	5.00%	14.09%
HR11	57.73%	33.18%	0.00%	9.09%
HR12	65.00%	20.91%	3.64%	10.45%

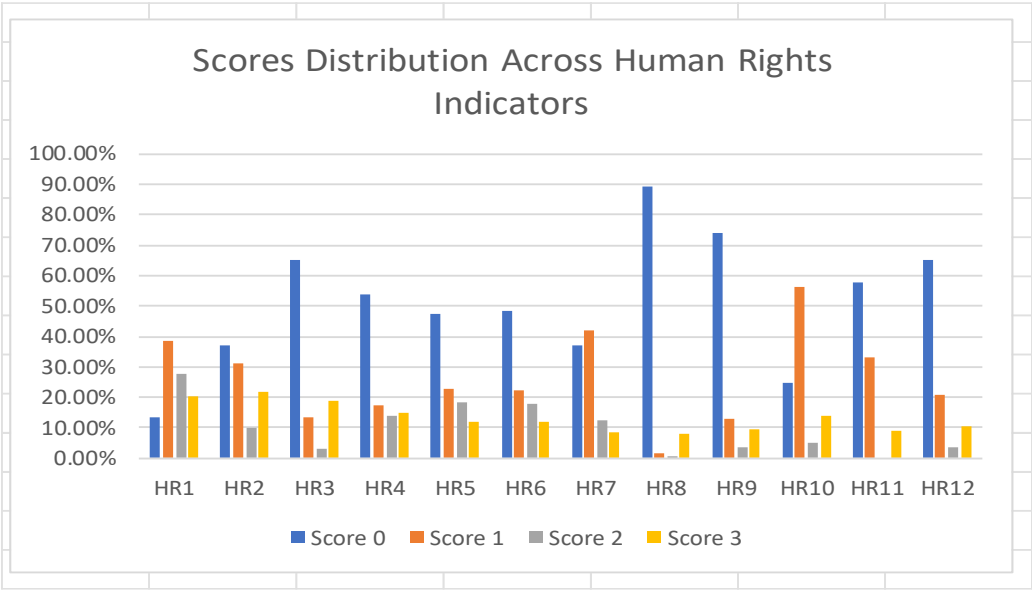

Figure 4.6: Scores Distribution across Human Rights Indicators

HR8 (Incidents of violations involving rights of indigenous people) in the graphical chart is the mostly undisclosed aspect in the framework under human rights with 89.55 percent. HR10 (New suppliers that were screened using social criteria) is the most disclosed aspect, that is not quantified with 56.36 percent. HR1 (Significant investment agreement with human right clauses) 27.73 percent is the most reported aspect that is quantified, while HR2 (Employee training in human rights policies or procedures) is the most reported aspect that is indexed with 21.82 percent.

Table 4.7: Percentage distribution of sustainability disclosure based on Society Theme

THEME	SOCIETY			
INDICATORS	0	1	2	3
SO1	7.73%	23.64%	35.00%	33.64%
SO2	85.91%	2.73%	0.91%	10.45%
SO3	43.64%	20.45%	5.91%	30.00%
SO4	21.82%	11.82%	27.73%	38.64%
SO5	73.18%	3.18%	1.82%	21.82%
SO6	52.73%	13.64%	8.18%	25.45%
SO7	44.55%	30.00%	0.91%	24.55%
SO8	61.82%	10.00%	0.00%	28.18%
SO9	30.45%	56.36%	3.64%	9.55%
SO10	53.64%	37.73%	0.00%	8.64%
SO11	71.36%	17.27%	1.82%	9.55%

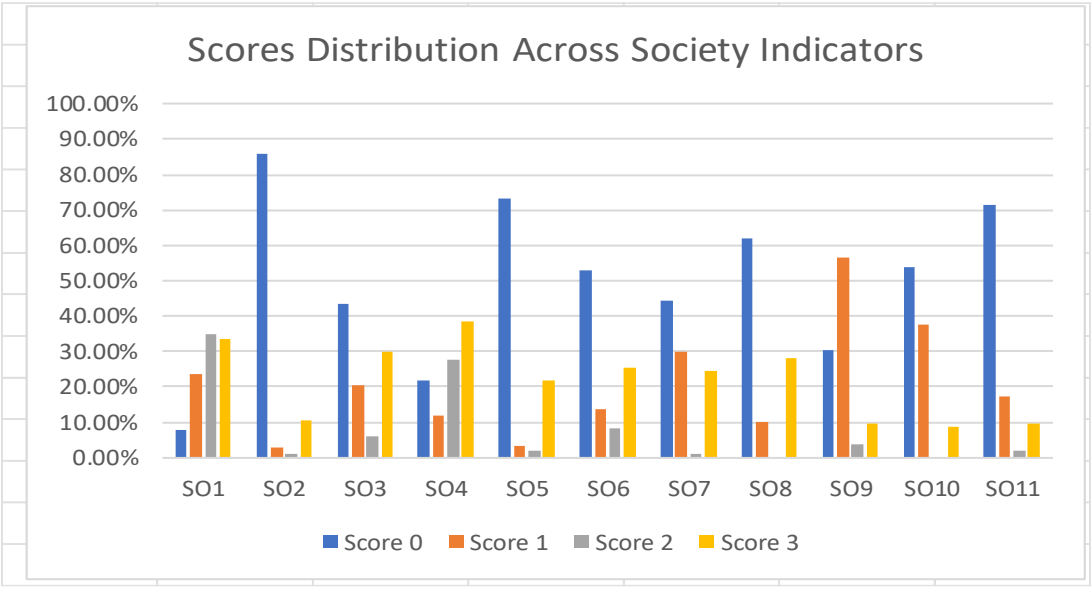

Figure 4.7: Score Distribution across Society Indicators

The most undisclosed aspect in Society indicators in the graphical chart is SO2 (Operations with significant actual and potential negative impacts on local communities) with 85.91 percent. SO9 (New suppliers that were screened using social criteria) is the most disclosed aspect, that is not quantified with 56.36 percent. SO1 (Operation with local community engagement, impact assessments, and development programs) with 35 percent is the most reported aspect that is quantified, while SO4 (Communication and training on anti-corruption policies and procedures) is the most reported aspect that is indexed with 38.64 percent.

Table 4.8: Percentage distribution of sustainability disclosure based on Product Responsibility Theme

THEME	PRODUCT RESPONSIBILITY			
INDICATORS	0	1	2	3
PR1	90.00%	2.73%	0.00%	7.27%
PR2	93.64%	0.00%	0.00%	6.36%
PR3	87.73%	0.00%	0.45%	11.82%
PR4	85.91%	0.91%	0.00%	13.18%
PR5	13.64%	27.73%	24.55%	34.09%
PR6	87.73%	0.00%	0.00%	12.27%
PR7	81.82%	2.27%	0.00%	15.91%
PR8	27.27%	23.64%	13.64%	35.45%
PR9	64.09%	10.91%	0.00%	25.00%

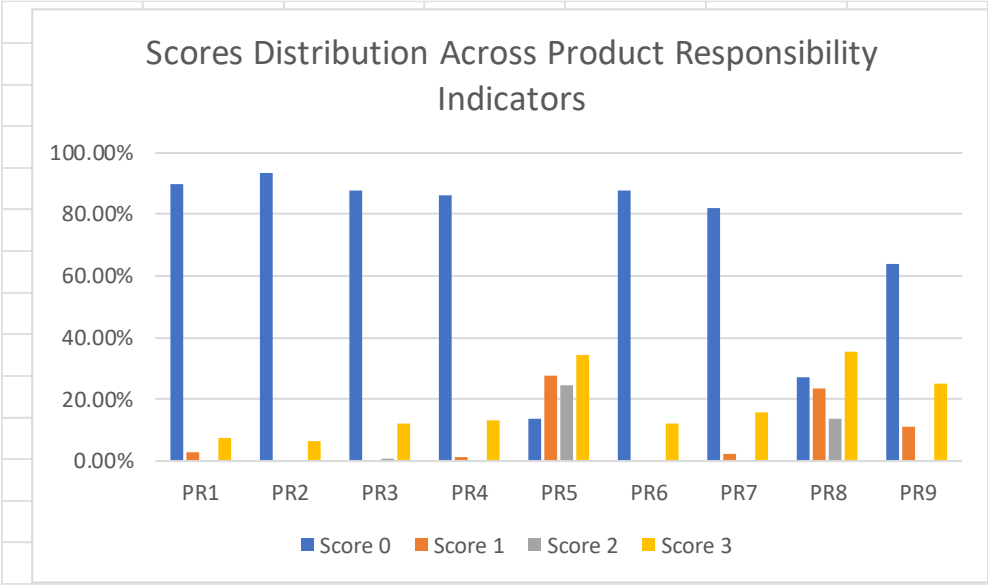

Figure 4.8: Score Distribution across Product Responsibility Indicators

The graphical chart shows that PR2 (Incidents of non-compliance concerning the health and safety impacts of products and services) is the mostly undisclosed aspect in the framework under product responsibility with 93.64 percent. PR5 (Approach to stakeholder engagement) is the most disclosed aspect, that is not quantified with 27.73 percent, and it is also the most reported aspect that is quantified with 24.55 percent. PR8 (Substantiated complaints concerning marketing communications) is the most reported aspect that is indexed with 34.45 percent.

Table 4.9: Percentage distribution of sustainability disclosure based on Financial Services Sector Supplement Theme

THEME	FINANCIAL SERVICES SECTOR SUPPLEMENT			
INDICATORS	**0**	**1**	**2**	**3**
FS1	9.55%	56.82%	24.55%	9.09%
FS2	10.91%	34.09%	45.45%	9.55%
FS3	17.73%	33.64%	39.09%	9.55%
FS4	2.73%	15.00%	73.64%	8.64%
FS5	5.45%	20.00%	66.82%	7.73%
FS6	60.00%	14.09%	7.27%	18.64%
FS7	5.00%	18.64%	52.27%	24.09%
FS8	15.45%	30.45%	30.00%	24.09%
FS9	29.09%	30.45%	32.73%	7.73%
FS10	49.09%	25.45%	9.09%	16.36%
FS11	59.09%	15.91%	4.09%	20.91%
FS12	63.64%	26.82%	3.64%	5.91%
FS13	39.09%	24.09%	14.55%	22.27%
FS14	29.55%	18.64%	21.82%	30.00%
FS15	13.18%	54.55%	24.09%	8.18%
FS16	26.82%	12.73%	49.55%	10.91%

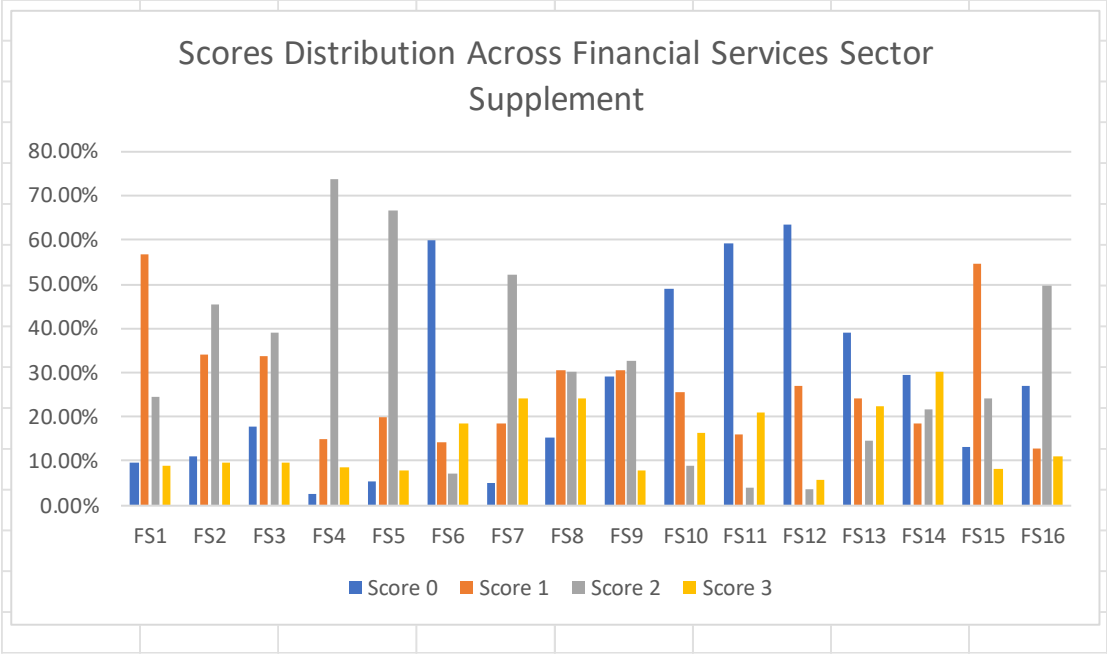

Figure 4.9: Scores Distribution across Financial Services Sector Supplement

FS12 (Voting policies applied to environmental or social issues for shares over which the reporting organization holds the right to vote shares or advises on voting) in the graphical chart is the mostly undisclosed aspect in the framework under financial services sector supplement with 63.64 percent. FS1 (Policies with specific environmental and social components applied to business lines) is the most disclosed aspect, that is not quantified with 56.82 percent. FS5 (Interactions with clients/investees/business partners regarding environmental and social risks and opportunities-stakeholders engagement) 66.82 percent is the most reported aspect that is quantified, while FS14 (Initiative to improve access to financial services for disadvantaged people) is the most reported aspect that is indexed with 30 percent.

4.1.3 Model Variables

Table 4.10 shows the descriptive statistics that provides a summary of the continuous variables that are used in the study. The descriptive statistics are stated in millions USD for Total Assets (TA) and Market Capitalization (MC), Number for Employees (NE), News Hits (NH), and Listing Status (LS), while percentage for profitability, solvency, and Board Composition (BC). Profitability is measured by Return on Equity (ROE) as the main proxy, while Return on Assets (ROA) and Profit Margin (PM) as additional proxies. Financial Leverage (FL) is measured as leverage (equity/total assets). The

natural logarithm applied to Total Assets (NTA), Number of Employees (NNE), Market Capitalisation (NMC), and News Hits (NNH).

Table 4.10: Descriptive statistics summary of continuous variables

Independent Variables								
Variable	**Symbol**	**Mean**	**Median**	**Std. Dev.**	**Min**	**Max**	**Skewness**	**Kurtosis**
Financial Leverage	FL	11.70	6.44	14.35	(11.07)	82.33	3.07	13.27
Board Composition	BC	0.68	0.72	0.25	0.13	1.00	(0.77)	2.44
Audit Committee	AC	4.93	5.00	1.27	3.00	9.00	0.41	2.59
Ownership Structure	OS	0.40	0.36	0.19	0.10	0.86	0.51	2.18
Firm Size	FA	118.00	12.50	85.98	6.00	328.00	0.55	2.69
	NFA	4.36	4.82	1.06	1.79	5.79	(0.74)	2.35
Corporate Visibility	NH	25,535.50	7,600.00	37,424.20	519.00	243,330.00	2.40	10.10
	NNH	9.24	8.94	1.36	6.25	12.40	0.31	2.26
Listing Status	LS	10.30	11.00	3.87	1.00	19.00	(0.11)	2.80
	ROA	6.33	0.89	63.09	(12.74)	935.57	14.63	215.91
	ROE	12.72	11.45	10.74	(30.88)	96.30	1.98	20.71
Profitability	PM	22.66	22.69	18.82	(88.50)	97.07	(0.59)	11.27
	TA ($)	614,539.30	369,315.00	671,908.30	2,259.00	3,032,974.00	1.36	4.36
	NTA	12.38	12.84	2.06	3.93	18.90	1.09	5.83
	NE	56,340.92	40,629.00	76,445.01	1,005.00	844,670.00	5.54	53.27
	NNE	10.19	10.61	1.42	6.04	13.65	(0.63)	2.91
	MC ($)	49,032.23	26,065.00	144,960.50	468.00	2,071,920.00	12.51	174.08
Firm Size	NMC	9.97	10.27	1.50	3.69	17.27	(0.43)	7.95

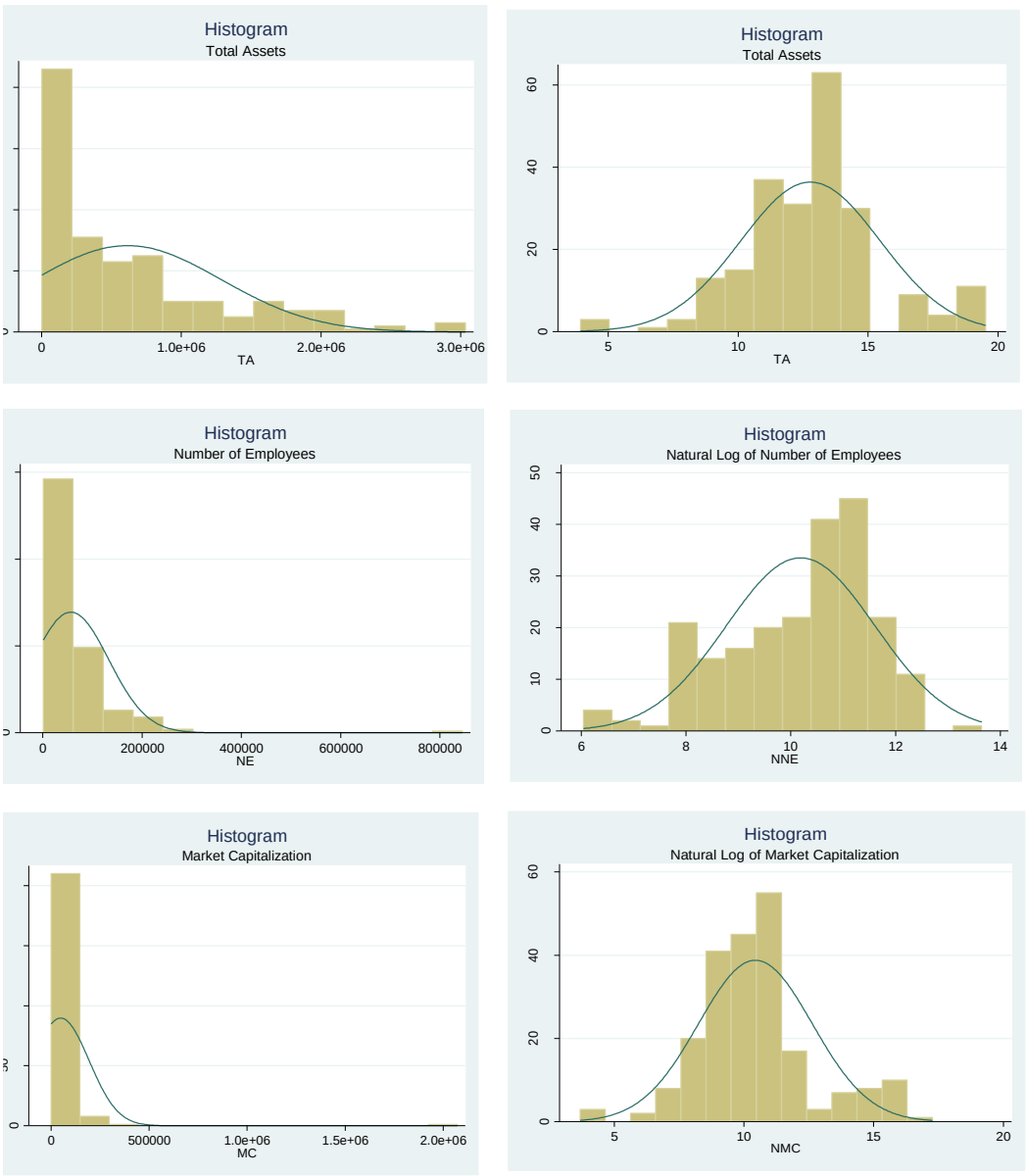

Figure 4.10: **Histograms of Firm Size**

Figure 4.10 shows the histograms for the firm size variables, which is denoted by Total Assets, Number of Employees, and Market Capitalization. Because of the severe skewness of the variables, the study, therefore, uses the natural logarithm of the data to reduce the impact on the result of the regression analysis (Rob Gray et al., 2001). The histograms in Figure 4.10 positioned at the right side show a distribution that is moderately skewed after the use of natural logarithm transformation as compared to the left side figure when natural logarithm was not applied. Figure 4.11 of Corporate Visibility, and Figure 4.12 of Firm Age use the natural logarithm transformation to allow a better normal distribution.

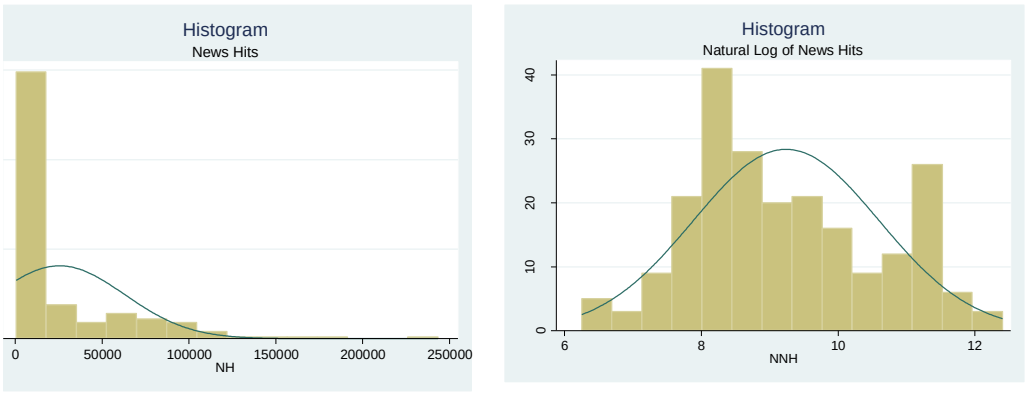

Figure 4.11: Histogram of (Natural Log) News Hits (Corporate Visibility)

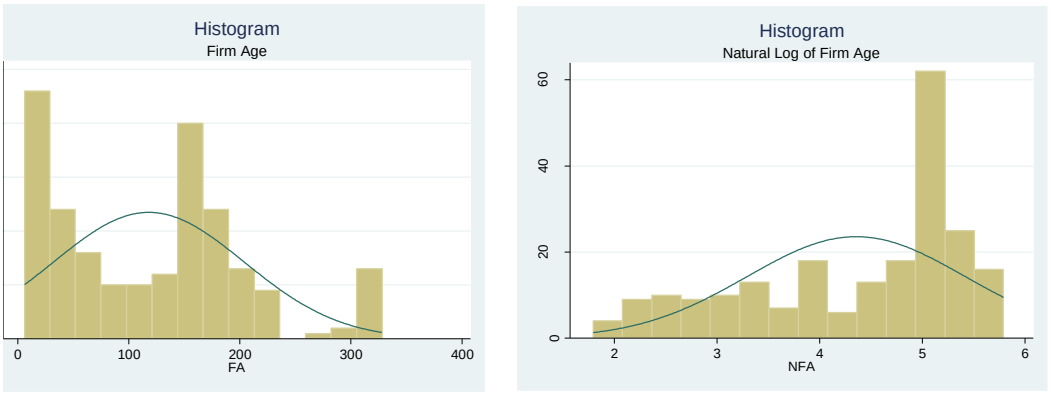

Figure 4.12: Histogram of (Natural Log) Firm Age

Table 4.11: Correlation Maxtrix of All Variables

VARIABLES	QSRI	FL	BC	AC	OS	FA	CV	LS	ROA	FS
QSRI	1									
FINANCIAL LEVERAGE (FL)	-0.1281	1								
BOARD COMPOSITION (BC)	0.0652	0.1321	1							
AUDIT COMMITTEE (AC)	0.0674	-0.3317*	-0.2075*	1						
OWNERSHIP STRUCTURE (OS)	-0.1017	-0.0963	-0.1296	0.0341	1					
FIRM AGE (FA)	-0.1271	-0.1186	0.1656*	0.035	-0.0038	1				
CORPORATE VISIBILITY (CV)	-0.0906	-0.1721*	0.037	-0.0266	0.0183	0.4195*	1			
LISTING STATUS (LS)	0.1431*	-0.2043*	0.1867*	0.1678*	-0.0778	0.3409*	0.3049*	1		
PROFITABILITY (ROA)	-0.0821	0.5205*	0.0694	-0.081	-0.1018	-0.0347	-0.1814*	-0.0394	1	
FIRM SIZE (FS)	0.0419	-0.4239*	-0.063	0.2990*	-0.0016	0.1807*	0.3646*	0.5266*	-0.2750*	1

The correlation matrix shows the correlation of coefficient among dependent, independent, and control variables. The dependent variable is denoted QSRI (Quality Sustainability Reporting Index). Asterisk (*) indicates significance of variable at 0.05 confidence level.

The Pairwise Correlation Matrix in Table 4.11summarized the relationship between all the variables in the dataset as it serves as a diagnostic for the multiple linear regression analysis to avoid the problem of multicollinearity when two highly correlated independent variables exist. Hence, the variables with correlation of 0.9 and above were excluded from the matrix.

4.2 Regression Diagnostic Tests

Multiple regression analysis is one of the extremely used statistical techniques for both scholarly and data analysis research in which its popularity is promoted by its pertinence to varied forms of data and problems, simplicity of interpretation, commonly available, and robustness to violations of the fundamental assumptions (Mason & Perreault Jr, 1991).

This research uses Panel data analysis based on the data distribution that combined reports for 81 financial service firms from the G7 countries covering a period of 5 years (2014-2018). Furthermore, Panel data analysis possesses the ability to integrate a set of data for various firms over different periods, which reduces the effect of collinearity among the predictor variables and increases the degree of freedom, thereby, causing robustness to the efficiency of statistical estimation. This research reviews estimate of three Panel data analysis techniques and ultimately to arrive at the best selection for the data analysis. The three techniques are fixed effects, random effects, and the pooled ordinary least squares (OLS) model. The best appropriate of these techniques is therefore applied that produces solutions to the most important objective of this research, which focused on the relationship between quality sustainability reporting practices and determinant factors (see appendix 06).

Fixed effect model is on the assumption that the intercepts for diverse entities are different with constant variation across firms and time. Random effects model on the other hand shows the variation across entities to be uncorrelated with the independent variables that are included in the model and do not have constant variation. While pooled OLS model is on the premise that the estimates have similar parameters, and the coefficients are constant. To choose the appropriate analytical model for the study, two distinctive tests would be conducted. The Breusch-Pagan Lagrange multiplier (LM) test

would be carried out between pooled OLS model and random effects model to determine the best model for the study between the two models. This would be followed by the Hausman test between the random effects and fixed effects. The best out of the three models would be selected in conducting the regression analysis for this study.

4.2.1 Pooled OLS and Random Effects: Breusch-Pagan Lagrange multiplier (LM)

The null hypothesis in this test is that the variance across entities is zero, which is no significant difference across the units. If the null hypothesis is rejected, it can be concluded that the panel data has a significant random effect. Hence, the random effects model is able to deal with heterogeneity over above the pooled OLS (Park, 2011). The null hypothesis is stated as follow:

H_0 Difference in coefficients is unsystematic in random effects model.

- **Result of the LM Test**

Breusch and Pagan Lagrangian multiplier test for random effects

chibar2(01) = 61.85
Prob > chibar2 = 0.0000

This result shows the probability value of 0.000 indicating the significant level at 1%. Hence, the null hypothesis is rejected, thereby pooled OLS model is rejected, and random effects become the preferred model.

4.2.2 Fixed Effects Model and Random Effects Model: Hausman Test

The relationship between quality sustainability disclosure and the company characteristics can be impacted by potential endogeneity. The Hausman specification test is applied for endogeneity in this study. The test evaluates a random effects model and compares it to the fixed effects model. The null hypothesis is that the difference in coefficient is not systematic, which means, the individual effects are uncorrelated with the other regressors is not rejected (Park, 2011). When the probability value is

insignificant, a random effects model becomes superior over its fixed effects counterpart.

- **Result of the Hausman Test**

Test: Ho: Difference in coefficients not systematic in fixed effects model

```
chi2(12) = (b-B)'[(V_b-V_B)^(-1)](b-B)
         =       10.48
Prob>chi2 =      0.2382
```

The result shows an insignificant probability value of 0.2382, which is an affirmation that the null hypothesis is accepted, and the alternative hypothesis is rejected. The implication of insignificant probability value of Hausman test result is that, random effects model is the most suitable model for the regression analysis (Torres-Reyna, 2007). The results of the LM test and Hausman test that have been carried out have shown that random effects model is the most appropriate and preferred technique over both fixed effects and pooled OLS models with the unique errors in the random effects uncorrelated with the regression.

4.2.3 Assumptions of Multiple Regression Analysis

This study tests the complexity of the relationships of the data set in line with the assumptions underlying the use of regression analysis in research study. The key assumptions employed are multicollinearity, heteroskedasticity and normality. Osborne and Waters (2002) argue that assumptions of multiple regression analysis must be met so that the results from the analysis can be trustworthy, and knowledge and awareness of the situations when these assumptions are violated can lead to serious biases.

4.2.3.1 Multicollinearity

When correlations exist between two predictor variables, it is called collinearity, but when the existing relationships become more than two predictors, it is therefore, known as multicollinearity. Shrestha (2020) describes multicollinearity as the event of great inter-correlations among the variables in a multiple regression model and this can trigger skewed or deluding results when a researcher attempts to decide on the most

viable way of utilising every factor to predict or comprehend the outcome variable in a statistical mode. Multicollinearity is regarded as an interdependency condition, which is described in terms of a lack of independence, or of the presence of interdependence, indicated by high intercorrelations in a set of variables (L. Cohen et al., 2002, p. 542; Farrar & Glauber, 1967). It is the degree to which the impact of any variable can be predicted by the other variables and as the degree rises, the ability to define any variable's effect diminishes (Hair, Black, Babin, Anderson, & Tatham, 2014, p. 21). Collinearity in regression model can be easily detected through the evaluation of the correlation matrix of independent variables and variance inflation factor.

- **Correlation Matrix**

(Mansfield & Helms, 1982) describe that by examining the correlation matrix of the predictor variables, the rule of thumb is, if two predictor variables have a correlation that is more than 0.9, it shows that both the predictor variables are statistically related. The correlation matrix in Table 4.11 shows the Pairwise correlation matrix of independent variables to be below 0.9, which indicates that there is no correlation between the independent variables.

- **Variance Inflation Factor**

Another measures of assessment of multicollinearity are tolerance and its inverse, that is variance inflation factor, which is the reciprocal of the tolerance value with the cut-off threshold value of above 0.10 for tolerance and below 10 for VIF (Hair et al., 2014, p. 197). Multicollinearity tests for the seven distinctive variables that the study uses are provided in Table 4.12

Table 4.12: Multicollinearity Analysis

Independent Variables	VIF	1/VIF
Firm Size	1.83	0.546713
Financial Leverage	1.70	0.589411
Listing Status	1.64	0.611449
Probability	1.45	0.691153
Corporate Visibility	1.41	0.707804
Firm Age	1.33	0.750690
Audit Committee	1.26	0.795883
Board Composition	1.16	0.861856
Ownership Structure	1.03	0.966559
Mean VIF	**1.42**	

The results in Table 4.12 show that the mean VIF of 1.42 and values of all the variables having the result of less than 10, and the tolerance values above 0.10, it is evident that the regression model has no multicollinearity problem.

4.2.3.2 Heteroskedasticity

Heteroskedasticity occurs when the values of dispersion or variance of the response variable is not relatively equal across the value of the predictor variable. For a precise prediction, the response variable must have constant variability with all the explanatory variables for heteroscedasticity not to occur (Rigobon, 2003). Conversely, homoskedasticity assumes that the response variable shows equal levels of dispersion across the range of independent variables (Hair et al., 2014, p. 72). The study tests heteroskedasticity by using the Breusch-Pagan. Breusch and Pagan proposed this test to examine the null hypothesis that the variances of the residuals are not related to a set of predictor variables versus the hypothesis of the alternative that the variances of residuals are a parametric function of the explanatory variables (Klein, Gerhard, Büchner, Diestel, & Schermelleh-Engel, 2016). Hence, when P-value of chi2 is less than 0.05, it shows that there is problem of heteroskedasticity and it is mitigated by apply the log transformation to the variables, therefore, the model will be free from heteroskedasticity problem (Breusch & Pagan, 1979; Glejser, 1969; White, 1980). The existing of heteroskedasticity problem can also be corrected by using robust option in the regression model (Atkinson, Riani, & Torti, 2016; Koenker & Bassett Jr, 1982; R. A. Yaffee, 2002) Table 4.13 shows the result of heteroskedasticity test.

Table 4.13: Heteroskedasticity Analysis

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity	
Ho:	Constant variance
Variables:	Fitted values of QSRI
chi2(1)	130.53
Prob > chi2	0.0000

The probability of chi2 of Table 4.13 is less than 0.05, which show the existing problem of heteroskedasticity. Hence, robust option is applied to the selected random effects model in order to correct the problem (Atkinson et al., 2016).

4.2.3.3 Normality

Normality referred to the shape of the data distribution for an individual metric variable and its correlation to the normal distribution, which is the yardstick for statistical methods, hence, the severity of normality is built on two dimensions, which are the shape of the wrong distribution and the sample size (Hair et al., 2014, p. 69). They further emphasis on the rule of thumb 5 in statistical assumptions that normality principally have serious effects when the sample size is fewer than 50 cases, but the impact diminishes when the sample size becomes large (Hair et al., 2014, p. 75). The study sample is more than 50 cases with 220 observations; therefore, normality test would not have serious effect on the model as postulated by (Hair et al., 2014).

4.3 Multiple Regressions Analysis Results: QSRI

The results of the multiple regressions with the model for the Quality Sustainability Reporting Index as the dependent variables are shown on Table 4.14.

Table 4.14: Multiple Regressions Results: QSRI

QSRI	Coef.	Robust Std. Err.	t	P>t
Fin. Leverage	0.03182	0.02959	1.98	0.048**
Board Composition	0.06664	0.07530	0.89	0.376
Audit Committee	0.05238	0.02091	2.25	0.038**
Ownership Structure	-0.03975	0.05548	-0.72	0.474
Firm Age	-0.03259	0.01888	-1.75	0.084*
Corporate Visibility	-0.00367	0.01260	-0.29	0.771
Listing Status	0.02374	0.01502	1.73	0.087*
Profitability	0.00055	0.00222	0.25	0.805
Firm Size	-0.00608	0.02285	-0.27	0.790
_cons	0.40433	0.24169	1.67	0.094
R-sq	0.0923			
Number of obs	220			
Number of groups	81			
Prob>chi2 (F)	0.0417			

Table 4.14 shows the multiple regressions results of the entire population with 220 observations from 81 groups. Financial Leverage is measured by the ratio of total debt to equity, Board Composition measures by the ratio of independent and non-executive board members to the total number of board members, Audit Committee is measured by the number of audit committee members, Ownership Structure is measured by the percentage of ownership holdings by institutional investors, Firm Age is measured by the natural log of the total number of years incorporated, Corporate Visibility is measured by the log of the number of hits in all

publications, and Listing Status is measured by the number of stock exchange's listing. While Profitability and Firm Size are used as control variables, which are measured by return on assets and number of employees respectively. * and ** indicate statistically significant variable at 10% and 5% level of confidence (*p>0.10; **p>0.05)

Table 4.14 presents the inferential results for the each independent (explanatory) variable about the dependent (response) over the coefficient of each variable. The measure of the level of significance of the model in explaining the variation in dependent variable is the first thing to consider. The standard used to determine the goodness of measure of significance in statistical analysis is the p-value. There are three levels of significance in p-value, which are at 1%, 5% and 10% of which, if the p-value is less than 0.01, it is an indication that there is exceptionally strong evidence that the model is exceptionally significant in explaining the variation in the response (dependent) variable having a probability of 99% or more and with the probability of 1% or less that the holding is not true. Furthermore, when p-value is less than 0.05, it shows that the model has strong evidence with 95% or more probability in explaining the variation in the response (dependent) variable and a probability of 5% or less that the holding is not true. While the last level of significance in p-value that has 0.10 is an indication that the model is significant in explaining the variation in the response (dependent) variable with a probability of 90% or more with a probability of 10% or less that the holding is not true (J. Adams, Khan, Raeside, & White, 2007, p. 185; Bhattacherjee, 2012, pp. 125,130; Dougherty, 2011, p. 39; Kock, 2016).

F-Statistics which is a test of significance for the entire regression shows a p-value of 0.0417 meaning that statistical relationship exists between the response and predictor variables. The individual coefficient tells us how each independent variable contributes meaningful information to the prediction of the response variable, while the positive or negative sign in the coefficient and t-value indicates the statistical relationship that exists between dependent and independent variables by showing the direction of the relationship. Consequently, the descriptive statistics from the regression output has R^2 to be 10.48%. This coefficient of determination that measures the explained variation shows that about 10.48% of the total variation of response (dependent) variable is explained by the regression.

4.3.1 Research Hypotheses Analysis and Discussion

The interpretation and discussion of the statistical results of each explanatory variable as shown in Table 4.16 in connection to the hypotheses postulated are thereby analysed in this section.

4.3.1.1 Analysis and Discussion on Leverage - Hypothesis 1

The first explanatory variable, which is financial leverage in Table 4.14 has a p-value of 0.048 showing a positive relationship between the response variable and the explanatory variable. The null hypothesis is rejected, while the alternative hypothesis is accepted. The result is consistent with the findings of Alves et al. (2012) that examine the factors that influence the different groups of voluntary disclosure in the annual reports of Spanish and Portuguese listed firms. The result shows that firms that have high level of leverage tend to increase agency costs and this inspire the managers to disclose additional information to reduce such costs. Also, Jensen and Meckling (1976) investigate the elements from the property rights theory, agency theory, and finance theory in order to develop the ownership structure theory of the firm. They examine the kind of the agency costs spawned by the presence of debt and shareholders' equity to determine the bearer of the costs and examine the Pareto optimality of their presence. The result shows that companies with high debt ratios will have high monitoring costs, and thereby, disclosing more information, which lead to positive relationship between leverage and voluntary disclosure.

On the contrary, Jennifer Ho and Taylor (2007) that investigate the determinants of the triple bottom line (TBL) disclosure practices of the selected largest US and Japanese firms with no significant relationship between leverage and triple bottom line disclosures. Also, El-Gazzar, Fornaro, and Jacob (2008) examine the determinants and the contents of the corporate voluntary disclosure of the responsibilities of the management. The study finds no statistically significant relationship between leverage the disclosures. Haniffa and Cooke (2005) and Liu and Anbumozhi (2009) in their studies find no association between CSR disclosures and the leverage of firms.

The study, therefore, accept the alternative hypothesis that, there is a positive relationship between financial leverage and quality sustainability reporting practices.

4.3.1.2 Analysis and Discussion on Board composition – Hypothesis 2

Board composition, which is measured by the number of independence and non-executive board of directors has the p-value of 0.376, which showing that the relationship between QSRI and the number if independence board of directors is not statistically significant. The result is supported with the findings of Amran et al. (2014) which examine the role of the board of directors in sustainability reporting quality (SRQ) in selected firms in the Asia-Pacific region. They found no positive relationship between SRQ and the board independence. Also, Faisal et al. (2012) and Said et al. (2009) show similar result as they could not find any correlation between CSR disclosure and the board independence. Conversely, Jizi et al. (2014) investigate how the roles of the board of directors influence the quality of corporate social responsibility disclosure. The study uses a sample of the US large commercial banks with their annual reports covering the period of 2009-2011 and found a positive relationship between the board independence and the quality of corporate social responsibility disclosure. Also Nandi and Ghosh (2013), Herda et al. (2012), and Sharif and Rashid (2014) find correlation between board independence and CSR disclosure.

The study rejects the alternative hypothesis and accept the null hypothesis that, there is no positive relationship between the quality sustainability reporting practices and the board composition.

4.3.1.3 Analysis and Discussion on Audit Committee – Hypothesis 3

Audit committee is measured by the number of appointed audit committee members shows a positive p-value of 0.038. This is an indication that, audit committee is statistically significant as a determinant of quality sustainability reporting practices. Audit committee plays a significant role in the corporate governance practices and by extension gives adequate support to the board members. Large effective audit committee contributes immensely to the quality of corporate sustainability reporting practices (Allegrini & Greco, 2013; Karamanou & Vafeas, 2005). The significant and dynamic role in carrying out the review of financial statements and other corporate reporting decreases the ambiguity in the opinion between the external auditors or assurance and the managers (Pucheta-Martínez & De Fuentes, 2007). Some past empirical studies show significant relationship between the sustainability/voluntary

disclosure and audit committee. Buallay and Al-Ajmi (2020) argue that larger audit committees are more effective in the monitoring and improvement of corporate sustainability reporting practices, thereby find positive relationship between audit committee and sustainability reporting practices. Also, other studies find positive association between audit committee and sustainability/voluntary disclosure (Al-Shammari & Al-Sultan, 2010; I. Khan, Khan, & Saeed, 2019; Samaha, Khlif, & Hussainey, 2015). On the other hand, Omair Alotaibi and Hussainey (2016) find a negative association between audit committee and corporate social responsibility. While other empirical studies could not see any relationship between audit committee and sustainability reporting practices (Be´ dard, Chtourou, & Courteau, 2004; J. Li et al., 2012).

This study, therefore, reject the null hypothesis and accept the alternative hypothesis that, there is a positive relationship between audit committee and quality sustainability reporting practices.

4.3.1.4 Analysis and Discussion on Ownership Structure – Hypothesis 4

Ownership structure is measured by the percentage of ownership holdings by institutional investors to the outstanding shares of the company. The result of the empirical study shows a p-value of 0.474. It shows that the impact of institutional investors holdings has no relevant in quality sustainability reporting practices of the financial services sector of the G7 countries. There are past empirical studies that support this argument. Dissanayake et al. (2019) could not find any relationship between the practice of sustainability reporting and ownership structure by using institutional ownership as a proxy. Also, Amran and Haniffa (2011) in their empirical study could not find any significant relationship between the two variables by using the same institutional investors as explanatory variables. On the contrary, there are other studies that found positive relationship between ownership structure and sustainability reporting practices (Bae et al., 2018; Chang, Amran, Iranmanesh, & Foroughi, 2019b; Drobetz, Merikas, Merika, & Tsionas, 2014; Gamerschlag et al., 2011). Kholis (2020) measures the ownership structure by majority of shareholders finds positive relationship between the ownership structure and the sustainability reporting practices. This study rejects the alternative hypothesis and accepts the null hypothesis that there

is no positive relationship between ownership structure and quality sustainability reporting practices.

4.3.1.5 Analysis and Discussion on Firm Age – Hypothesis 5

Firm age is measured by the natural log of number of years since the inception of the firm. The empirical result for this attribute shows the p-value of 0.084. This is an indication that there is a level of significant relationship between age and the quality of sustainability reporting practices at 0.10 level of confidence. However, the result shows a coefficient that is negative, meaning that firm age as measure by the natural log of number of years since the company was incorporated has a negative implication on the quality of sustainability reporting practices. This result is consistence with some previous empirical studies that found negative correlation between firm age and sustainability reporting (Marquis & Qian, 2013; Shamil et al., 2014). Marquis and Qian (2013) examine the firm characteristics on sustainability reporting of listed companies in the Colombo Stock Exchange (CSE), Sri Lanka. Their finding shows that, there is a negative relationship between firm age and CSR disclosure. Other researchers find significant relationship between firm age and sustainability reporting in their empirical studies. Bhatia and Tuli (2017) use content analysis method to investigate 158 selected Indian companies from BSE 200 to find their significant corporate attributes for sustainability reporting. The result shows among other attributes that age is significant to sustainability reporting. Likewise, Alsaeed (2006) and Al-Shammari (2008) find positive relationship between age and CSR disclosure. On the contrary, there are some empirical studies that could not find any relationship between age and sustainability reporting (Bhayani, 2012; Mohammed Hossain & Reaz, 2007; Michelon & Parbonetti, 2012; Shamil et al., 2014).

This study rejects the alternative hypothesis and accept the null hypothesis that there is no positive association between firm age and quality sustainability reporting practices.

4.3.1.6 Analysis and Discussion on Corporate Visibility – Hypothesis 6

Corporate visibility as determinant is evaluated by the number of news hits in magazines, journals, and newspaper. The statistical results from the natural log of number of news hits (NNH) shows p-value of 0.771, which indicates that, there is no

relationship between the response and explanatory variables. Kartika and Puspa (2013) have a similar result in their study as they find no relationship between corporate visibility and sustainability reporting. However, Nikolaeva and Bicho (2011) have a contrary view as their findings show a positive relationship between corporate visibility and the adoption of sustainability reporting when exploring the voluntary adoption of sustainability reporting by companies, using the Global Reporting Initiatives (GRI). Also, the results of Kent and Monem (2008) and Jianling Wang et al. (2013) show that positive relationship exists between corporate visibility and CSR disclosure.

The study, therefore, reject the alternative hypothesis to accept the null hypothesis stating that, there is no positive relationship between corporate visibility and quality sustainability reporting practices.

4.3.1.7 Analysis and Discussion on Listing Status – Hypothesis 7

The statistical result of listing status from Table 4.14 shows a p-value of 0.087, which is less than 0.10 level of confidence, and with a positive correlation coefficient of 0.02374. This is an indication that there is a positive relationship between the response and explanatory variables. The result indicates that diverse stakeholders and interest groups in the countries where the companies are listed must be satisfied and rules and regulations on social and environmental disclosures that are operating in overseas stock exchanges must be adopted to legitimatize the societal norms in the global market other than the domicile market.The result is similar to the findings of Cooke (1989), Robb and Zarzeski (2001), and Haniffa and Cooke (2005), which all find international listing status as a determinant of sustainability reporting practices

Consequently, the study rejects the null hypothesis and accept the alternative hypothesis that, there is a positive relationship between listing status and quality sustainability reporting practices.

4.3.2 Control Variables

The empirical results shown on Table 4.14 for the two control variables used for the study are explained as profitability and firm size, which are measured by the return on assets and natural log of number of employees respectively. The profitability is not

statistically significant with the p-value of 0.805. This result is consistent with the finding of Andrikopoulos et al. (2014), which found no statistical significant between the CSR disclosure index and ROE. Some other previous empirical studies that used profitability as their control variables, could not find positive relationship between profitability and sustainability reporting (Branco & Rodrigues, 2008; Clarkson, Overell, & Chapple, 2011; Michelon, 2011; Prado-Lorenzo et al., 2009).

Firm size, which is another control variable with p-value of 0.790 shows no relationship between firm size and the sustainability reporting. This is consistent with the results of other empirical studies that used firm size as control variable. D. Rouf (2011) examines the relationship that exist between corporate attributes and corporate social responsibility disclosures of the listed firms on the Dhaka Stock Exchange and the regression results show no statistically significant association between the firm size and the corporate social responsibility disclosure. Also, some other researchers could not find any significant relationship between firm size and quality sustainability reporting practices (Mohammed Hossain & Reaz, 2007; Roberts, 1992; Vormedal & Ruud, 2009).

4.3.3 Creating Dummy Variables in Regression Analysis

Dummy variable is a dichotomous variable that is used to capture information that are contained in a categorization pattern and subsequently, use the information in a standard regression estimation (Hardy, 1993, p. 2). The dummy variable is a numerical variable method that is simple and useful to introduce information that are contained in subgroups of the study sample in regression equations (Suits, 1957). In the easiest way, this study uses dichotomous of '0' and '1' to group all the financial service firms in the population. 0 for the non-bank institution, and 1 for bank institution. Therefore, the regression analysis result is shown in Table 4.15

Table 4.15: Regression Analysis Result

QSRI	Coef.	Robust Std. Err.	t	P>t
Fin. Leverage	- 0.00540	0.00245	1.20	0.191
Board Composition	0.10310	0.13296	1.78	0.082*
Audit Committee	- 0.01880	0.02934	- 1.94	0.522
Ownership Structure	- 0.01542	0.07472	- 0.21	0.837
Firm Age	0.02383	0.01979	1.88	0.072*
Corporate Visibility	- 0.01894	0.01216	- 1.56	0.119
Listing Status	0.00016	0.00551	0.03	0.977
Profitability	0.01440	0.00484	2.98	0.003***
Firm Size	0.02125	0.03332	0.64	0.524
_cons	0.51586	0.37430	1.38	0.168
R-sq	0.0843			
Number of obs	134			
Number of groups	47			
Prob>chi2 (F)	0.0451			

The table displays the result of the whole population with dummy variable. The regression formula has dummy variable of n=1, that indicates bank category in the population, which resulted to n=134. *, **, and *** indicate statistically significant variable at 10%, 5%, and 1% level of confidence. respectively (*p>0.10; **p>0.05; ***p>0.01)

The result of the regression in Table 4.15, which is based on the total score of quality sustainability reporting index with dummy variable of n=1 for bank institutions in the financial services sectors shows three bank characteristics that are statistically significant in their relationships with the response variable. The board composition that is measured by the ratio of independent and non-executive board members to the total number of the board members shows positive relationship at 10% level of confidence with p-value of 0.082. This is not far-fetched from the banking industry, which is highly regulated. It is an indication of good corporate governance that is expected to be strictly adhered to by the bank. Independent directors are regarded as balanced instruments that have less connection to the management, thereby, always eager to act in the best interest of the other stakeholders. This is consistent with other researchers that appraise banking industry and find significant relationship between board composition and sustainability reporting (Jizi et al., 2014; A. Khan, Muttakin, & Siddiqui, 2013a; Liao, Luo, & Tang, 2015; M. A. Rouf & Hossan, 2020; Rupley et al., 2012)

Firm age also has positive relationship at 10% level of confidence with p-value of 0.072. Older banks want to maintain their hard-earned reputation and their long year of

experience, which engender their quality sustainability reporting practices. Older banks have become economically viable to enable them build adequate resources to make a quality disclosure than the newly incorporated banks. The positive relationship of profitability to quality sustainability reporting of banking industry as control variable with p-value of 0.003, which suggests that the banks that are financially sound and profitable will have enough monetary resources to allocate to the practice of quality sustainability reporting. A profitable bank would not be bashful about its accomplishment but quick to disclose quality of information to the public in order to enhance its reputation (Vitolla, Raimo, Rubino, & Garzoni, 2020).

4.3.4 Supplementary Multiple Regressions by Theme

This section provides more results on the multiple regression analysis when the dependent variables (SRI) is broken down into seven key themes (categories). These are economic, environmental, and labour practices and decent work. Others are human rights, society, product responsibility, and financial services sector disclosure. Dissanayake et al. (2019) investigate the key firm attributes that influence sustainability reporting of 84 publicly listed firm in Sri Lanka stock exchange from 2012 to 2015. The study uses GRI guidelines, which is broken into three main themes, namely economic, environmental, and social, and the result shows that, the Sri Lanka larger firms are at the vanguard of sustainability reporting and increasingly using the GRI guidelines to communicate sustainability information.

Jennifer Ho and Taylor (2007) examine the triple bottom-line (TBL) disclosures of 50 largest companies in the US and Japan. The study uses the three notable themes to make the TBL disclosures namely, economic, environmental, and social and uses regression analysis to investigate empirically the determinants of triple bottom-line disclosure practice. The results show that, the combined TBL disclosure themes are higher in extent of reporting with firms that have larger size, lower liquidity, lower profitability, and sector's affiliation in both countries. However, the environmental theme disclosure is higher among Japanese firms than United States.

This study examines seven key themes that are reflecting diverse aspects of business activities and the various degree of results. The investigation of the themes disclosure helps to discover the reasons for the differences in sustainability reporting practice (S.

M. Williams, 1999). Table 4.16 shows the results of the regression analysis of all the themes disclosure with the indication of the p-value and coefficients of each of the explanatory variables.

Table 4.16: Themes Disclosure Regression Analysis

	ECDI	ENDI	LPDI	HRDI	SODI	PRDI	FSDI
Independent Variables							
FL	0.075*	0.297	0.02**	0.612	0.236	0.006***	0.036**
	-184	-0.001139	-0.00279	-0.00074	-0.001677	-0.037544	-0.00247
BC	0.007***	0.276	0.717	0.263	0.083*	0.285	0.063*
	0.238	0.0956	-0.03294	-0.10176	0.15163	0.09642	0.07187
AC	0.882	0.641	0.966	0.410	0.988	0.617	0.743
	0.00334	0.00969	0.001045	0.01988	0.003296	-0.01345	0.00638
OS	0.528	0.622	0.168	0.749	0.709	0.386	0.530
	-0.0474	-0.03076	-0.08639	-0.017	-0.02302	-0.0608	-0.03459
FA	0.132	0.069*	0.014**	0.618	0.172	0.221	0.076*
	0.03834	0.03611	0.0579	0.0133	0.03127	0.3296	0.01582
CV	0.148	0.584	0.522	0.934	0.562	0.169	0.599
	-0.02006	-0.00692	0.00975	-0.00113	-0.00907	-0.01926	0.00811
LS	0.200	0.075*	0.476	0.021**	0.326	0.529	0.087*
	0.00837	0.0052	0.00398	0.00565	0.00648	0.003231	0.007498
Control Variables							
ROE	0.581	0.938	0.822	0.882	0.677	0.861	0.085*
	-0.01195	0.00136	0.00625	0.00459	0.00134	0.000407	0.00521
FS	0.767	0.927	0.858	0.878	0.748	0.944	0.226
	0.00758	-0.00195	-0.00431	-0.00351	0.008087	0.002044	0.02715
Constant	0.063	0.089	0.017	0.167	0.226	0.053	0.548
	0.5032	0.44036	0.65001	0.32592	0.35201	0.58989	0.127986
Number of obs	220	220	220	220	220	220	220
Number of grps	81	81	81	81	81	81	81
Prob > F	0.091	0.2951	0.1213	0.8003	0.2862	0.1567	0.0577
R-squared	0.1444	0.057	0.0797	0.0503	0.0712	0.084	0.1239

Table 4.16 displays the regression result of the whole population (n = 220) with the theme dependent variable of Economic Disclosure Index (ECDI), Environmental Disclosure Index (ENDI), Labour Practices and Decent Work Disclosure Index (LPDI), Human Rights Disclosure Index (HRDI), Society Disclosure Index (SODI), Product Responsibility Disclosure Index (PRDI), and Financial Services Sector Supplementary Disclosure Index (FSDI). *, **, *** indicate significant confidence level at 0.10, 0.05, and 0.01 respectively

4.3.4.1 Economic Disclosure

The economic theme in accordance with GRI G4 consists of nine indicators with a total score of twenty-seven for the quality sustainability theme reporting. Table 4.16 under

ECDI shows the regression result of the economic theme disclosure, which rank fourth in theme average level of disclosure with 10.41% (see Table 4.1). The statistical result has seven explanatory variables and two control variables with R^2 of 0.1444 (14.44%) indicating the percentage of the explained variability of the dependent variable. Financial leverage is significant at the 10 percent level of confidence with negative correlation coefficient. The result is an indication that, the higher the company leverage, the lower the level of economic disclosure. This result is consistent with the empirical findings of Roberts (1992) and Brammer and Pavelin (2006), which show that negative relationship exist between economics disclosure and sustainability reporting. There is no significant relationship between economic disclosure theme and audit committee, ownership structure, firm age, corporate visibility, and listing Status. However, board composition shows a p-value of 0.007 with the coefficient of 0.2380, which is an indication that there is positive relationship between board composition and economic theme disclosure. It shows that good board composition influences more economic disclosures. This is consistent with the findings of Jennifer Ho and Taylor (2007), Clarkson et al. (2008), and Jizi et al. (2014).

4.3.4.2 Environmental Disclosure

The environmental theme consists of thirty-four indicators and one hundred and two scores, which is the highest score for the quality sustainability theme reporting. Table 4.1 shows the environmental theme disclosure, which rank first in theme average level of disclosure with 29.54%. The regression results of environmental theme in Table 4.16 under ENDI shows R^2 of 0.057 indicating the explained variability in the response variable. The p-value of age and listing status show significant relationship between response and independent variables with 0.069 and 0.075 respectively. Although, the age has inverse relationship as it shows a negative correlation coefficient, but listing status has a positive correlation coefficient, indicating that, the more market exchanges a firm is listed, the higher quality of its environmental disclosures. This is an indication that the interest and power of stakeholders in foreign countries are very diverse and may, therefore, wield different pressures on firms. Also, firms that are listed outside the domestic capital market may have to comply to rules and regulations on climate change and sustainability practice, and while the pressure to legitimise a corporation is higher in the developed countries than the domestic country (Haniffa & Cooke, 2005). Cooke (1989) and Reverte (2009) have similar results with the listing status being statistically

significant to environmental disclosure. Other variables from the regression results do not show any significant relationship.

4.3.4.3 Labour Practices and Decent Work Disclosure

The labour practices and decent work theme consists of sixteen indicators, forty-eight scores for the quality sustainability theme reporting and it is ranked third in theme average level of disclosure with 16.49% as shown in Table 4.1. The results on Table 4.16 under LPDWI shows R^2 of 0.0797 indicating the explained variability in dependent variable. Financial leverage and firm age are extremely significant with the p-value of 0.02 and 0.014 respectively. Although the coefficients of the two variables are negative, which show the inverse relationship between response and explanatory variables. This is consistent with Cahaya, Porter, Tower, and Brown (2012) who examine the communication level of labour practices and decent work theme disclosures of the listed companies in Indonesia using the 2006 GRI frameworks and found negative significant relationship between the company characteristics and the response variable. Other explanatory variables are not statistically significant in the relationship with the response variable of labour practices and decent work theme disclosure index.

4.3.4.4 Human Rights Disclosure

Human rights theme, which ranked sixth in theme average level of disclosure with 9.09% as shown in Table 4.1, consists of twelve indicators of GRI frameworks, which translate to thirty-six scores of quality sustainability reporting theme disclosure. The regression analysis results in Table 4.16 under HRDI show R^2 of 0.0503 as the explained variability in dependent variable. Only the listing status shows a significant relationship between response and explanatory variables with p-value of 0.021. This shows the extent to which the national and international human rights law is applicable to firms in the financial service sector that have market exchange listing outside their domicile exchange aspiring to contribute to the quality human rights theme disclosures. This is consistent with other previous studies (N. Eccles, Hamann, & De Jongh, 2008; Hamann, Sinha, Kapfudzaruwa, & Schild, 2009).

4.3.4.5 Society Disclosure

The society theme ranks fifth in theme average level of disclosure with 9.96% as shown in Table 4.3, consists of eleven GRI indicators with thirty-three scores for quality sustainability theme disclosures. The result of the regression analysis on Table 4.16 under SODI shows R^2 of 0.0712 indicating the explained variability in response variable. Board composition has a p-value of 0.083, which statistically significant at 10% confidence level with the coefficient of 0.15163. This company characteristics propel companies to engage more in community social development and make significant community participation disclosures to explain that the institutions have reputable and recognised name among the general public (Branco & Rodrigues, 2008; Cowen et al., 1987). Other company characteristics could not show any statistical significance in their relationship with the theme disclosure.

4.3.4.6 Product Responsibility Disclosure

The product responsibility theme ranks seventh in theme average level of disclosure with 5.59% as shown in Table 4.1 consists of nine GRI indicators with twenty-seven scores of quality sustainability theme disclosures. Table 4.16 under PRDI shows R^2 of 0.0840 explaining the variability in response variable. Only financial leverage shows strong significant relationship with the response variable with p-value of 0.006 but with the negative coefficient of 0.00375 while other company characteristics have no statistical relationship with the theme disclosure. The result is an indication that, company with high financial leverage tends to make less product responsibility theme disclosure. This is consistent with the findings of (Cowen et al., 1987; Echave & Bhati, 2010; Sobhani, Amran, & Zainuddin, 2012)

4.3.4.7 Financial Services Sector Supplement Disclosure

The financial services sector supplement disclosure theme is the summarised disclosure of all other categories of sustainability reporting frameworks designed for financial institutions as supplementary disclosure. It ranks second in theme average level of disclosure with 18.91% as shown in Table 4.1. This theme consists of sixteen GRI indicators with forty-eight scores of quality sustainability theme disclosures. The regression results on Table 4.16 under FSDI show R^2 of 0.1239 which indicate the explained variability in response variable. Board composition, firm age, and listing

status are statistically significant with positive coefficient as they have p-value of 0.063, 0.076, and 0.085 at 10% level of confidence. Financial leverage is statistically significant with p-value of 0.036 but with negative coefficient. While control variable of profitability is significant at 0.10 level of confidence. The relationship between the company characteristics of board composition, which stands for corporate governance, the firm age, which is inherent characteristic of the company or internal factor, and the listing status stands for external factor. These three characteristics relate positively to financial service sector supplementary disclosure (FSSSD). This is to underscore the importance of industry-specific framework in sustainability reporting. There are few research studies on FSSSD for comparison to the best of my knowledge, but among few studies that support the results are Beaver, Eger, Ryan, and Wolfson (1989) and Habib-Uz-Zaman Khan et al. (2011). The result of this theme is reaffirming the support to industry-specific framework, because FSSSD is specifically introduced by GRI to be a supplement for financial services sector.

CHAPTER FIVE

CONCLUSION

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Chapter four of the research has provided the findings and discussion of results in which the objectives of the study have been significantly achieved. The previous chapter also was used to present the pilot study that was carried out at the inception of this research, which formed the basis for the main study. The descriptive results for entire data set and sustainability theme reporting were analysed in the previous chapter. Subsequently, the research variables (response and explanatory) that evolved from the process of the data collection were discussed to gain insights to the research hypotheses that were tested. However, this last chapter of the study is to draw conclusions by providing research summary and conclusions, research contributions and value added to knowledge, and lastly, the research limitations and future research suggestions.

5.1 Research Summary and Conclusions

The research objectives are to build a scoring index to appraise the quality of sustainability reporting, to determine the relationship between the company attributes and quality sustainability reporting practices, and to appraise the effect of company characteristics on theme sustainability reporting. After three major diagnostic estimates namely: pooled OLS regression, random effects regression, and fixed effects regression, the researcher eventually selected random effects robust regression, which produces the best estimated outcome for the relationship. The choice of robust estimation is required by the existence of heteroskedasticity in the dataset as a measure of correcting the problem as suggested by some researchers (Atkinson et al., 2016; Koenker & Bassett Jr, 1982). After the analysis of the results, some discoveries were made, which are related to the research objectives.

The first research objective is connected to developing a scoring index for quality sustainability reporting. The study achieves this by creating a measuring instrument for sustainability reporting practices centred on content analysis technique. 220 corporate sustainability reports were reviewed with GRI-G4 framework, and data were manually collected with the use of 4-point measuring scale weighted approach. A quality sustainability reporting index was constructed. The objective, therefore, is to

encourage firms to report more quality information, which is an indication of better sustainability performance. Hence, quality reporting becomes overarching process to quantity sustainability reporting.

The scoring index process was applied to the seven theme disclosures to appraise the industry-specific framework. This standardised scoring index has improved comparability among firms' sustainability disclosures and enables firms to have more specific guidelines that support them in sustainability reporting. Hence, the first research question as to how quality can be appraised in sustainability reporting has been answered.

The second research objective tests the effect of company's attributes on the quality of sustainability reporting practices (Financial Leverage, Board Composition, Audit Committee, Ownership Structure, Firm Age, Corporate Visibility, and Listing Status), while two attributes were used as control variables (Profitability and Firm Size). Four of these corporate attributes were found to be significant after their impacts were tested on the quality of sustainability reporting on the financial services sector of the developed countries (G7). These become the determinants of quality sustainability reporting practices. The second research question as to what constitutes the determinants of quality sustainability reporting practices in the financial services sector of the group of developed nations (G7). This question is thereby answered with leverage as one of the determinants, which is measured by the total sum of debts divide by company's total equity. According to agency theory, which argue that firms that are highly geared are more likely to make more disclosure of information to minimize the increasing agency costs in which the high debts have created and to give assurance to their lenders that the company is able to make repayment of its debts when it is due. The empirical study, therefore, accept the alternative hypothesis that there is a significant relationship between leverage and quality sustainability reporting practices.

Audit committee is another company's attributes, which is measured by the numbers of the appointed audit committee members that is statistically significant with p-value of 0.038. This underscores the role of large effective audit committee in quality sustainability reporting practices in financial services sector. The dynamic responsibilities of carrying out review of financial statements and corporate reporting,

sectional supervision, and their relationship with external stakeholders contribute immensely to the effectiveness of the advisory role of the company's board of directors.

Listing status, which is measured by the number of stock exchange markets that the company is listed, has significant positive relationship with the p-value at 10% confidence level. The diverse listing requirements by different stock exchanges where the firms are listed, and the different stakeholders' interest often put the firms under strict compliance to different rules and regulations. The empirical result, which built around stakeholder theory has made listing status to be one of the determinants, thereby, accepting the alternative hypothesis that positive relationship exists between listing status and quality sustainability reporting practices.

Firm age is another determinant that is measured by the number of years the firm has been incorporated. The relationship is significant with p-value at 10% confidence level. However, the relationship is inverse as it shows a negative coefficient. It shows that the older the firm is the more irresponsive to the quality sustainability reporting practices. Newer firms are more likely to be responsive to the practice as a way to make themselves acceptable in the society and gain more patronage. Unlike the older firms that have got the foothold on the market already. The study, therefore, reject the alternative hypothesis that there is a positive significant relationship between firm age and quality sustainability reporting practices.

The study did not see any significant relationship between board composition and corporate visibility, except when the dummy variable is applied to separate bank institutions from other financial service institutions. Table 4.15 shows that board composition is statistically significant when the study used dummy variable with 134 observations. This result support a superior corporate governance structure and it is consistent with the GRI's definition of sustainability reporting when performance governance is incorporated as a component of sustainability reporting.

The third research objective is to test the effect of company characteristics on sustainability theme disclosures. The study shows the degree of theme disclosure in Table 4.1 as Environmental takes the lead with 29.54%. This underscore importance of sustainability as critical development that meets our presents needs without disregard

the ability of the future generations to also meet their needs. Environmental disclosure is very fundamental in sustainability reporting irrespective of any sector that is making the report. The Financial Services Sector Supplement Disclosure with 18.91% is an attestation of the fact that the theme is specifically introduced into GRI guidelines to be used by the financial services sector as supplement and not as replacement. Other themes show the level of their disclosures as Labour Practices and Decent Work 16.49%, then Economic 10.41%, then Society 9.96%, then Human Rights 9.09%. The least reported theme is Product Responsibility, which shows that the theme has not much relevant in the financial services sector.

The results in Table 4.16 show the theme disclosure regression analysis with two corporate attributes related to three themes disclosure of ECDI, ENDI, and LPDI, while other three themes disclosure (HRDI, SODI, and PRDI) have one corporate attribute each. However, the Financial Services Sector Supplement Disclosure Index (FSDI) has the four firm's characteristics and one control variable statistically significant in relationship to the theme disclosure index. The theme is specifically included by GRI for the purpose of financial services sector and the results of the empirical study has attested to the fact that industry-specific framework is better for sectorial disclosure than the use of general framework. This result has helped the study to achieve the third objective of the research.

5.2 Research Contributions and Value Added to Knowledge

This study adds value by the knowledge it generates, as it enhances the literature of sustainability field by the insights it has developed. The study value added is shown in the following areas:

The research provides a considerable contribution to theoretical literature and sustainability reporting framework. The study gives support to justify the use of legitimacy, Institutional, Stakeholder, Agency theories to explain the companies' drive for engaging in sustainability reporting to meet stakeholders' expectations.

The research develops a GRI-based reporting index to simplify the appraisal of firms' sustainability reporting based on quality disclosures in the financial services sector among the group of developed nations (G7).

The index enhances the GRI-G4 guidelines and provides a reliable instrument to analyse theme disclosures to enable the company or users the general view of a sustainable development and determine the sectoral relevance. The thesis measured seven dimensions of sustainability disclosures, which are Economic, Environmental, Labour Practices and Decent Work, Human Rights, Society, Product Responsibility, and Financial Services Sector Supplement. With the evaluation of the entire set of the issues of sustainability reporting disclosure, the research provides improved insights into the very key sustainability themes that the other sectors communicate.

It also provides an enriched and standardised measurement for future research projects and fosters comparability of firm sustainability reporting and performance. The study provides industry-specific appraisal which based on the industry-based sustainability information, which can be useful for different stakeholders or modify for sustainability framework and guidelines update.

The research provides vital insights into the diverse factors that drive quality sustainability reporting practices given to the ambiguity in the exiting literature. The leverage, firm age, board composition and listing status are seen to be significantly related to the quality sustainability reporting practises.

Policy Implications

In benefiting from the value added knowledge, the study should be applied practically in a set up so as to have its full impact on the society. The GRI or other bodies that produce sustainability reporting frameworks (Sustainable Development Goals, United Nations Global Compact, International Standard ISO 26000, Sustainability Accounting Standards Board, Task Force on Climate-related Financial Disclosures, PRI Reporting Framework etc.) should be working toward to promote standardised sectoral frameworks instead of general guidelines for sustainability reporting. These professional bodies also, should work together with the authorities to make

sustainability reporting a mandatory practice among the public listed companies instead of allowing it to be voluntary.

5.3 Research Limitations and Future Research Suggestions

The study has limitation in the collection of its data from stand-alone sustainability and annual reports of companies as some reports were not analysed due to language interpretations and the company's website could not provide translation page.

The stand-alone sustainability reports the study evaluated are limited to the reports produced with the GRI-G4 guidelines between 2014 to 2018. The GRI has subsequently rolled out a new version of framework with effect from the year 2019. The research is limited to the public listed financial service companies and all private companies within the group of seven countries are not analysed, even if they used GRI framework to prepare their sustainability reports. This has placed limitation on our data source.

The future research can focus on using the updated GRI version of sustainability framework, which is known as "standard" for further examination and the scope can be expanded to accommodate small and medium enterprises (SME).

Future researchers could also examine the motivations behind sustainability reporting practices by another corporate sector by using a qualitative approach to gather their data, conducting interviews with the management and boards members.

The research was based on limited number of variables relating to firm's characteristics. Further research can use different proxies for firm's characteristics and have more in-depth examination in conjunction with other robust statistical testing method, which might improve future study.

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APPENDIXES

Appendix 01 – GRI Report List Request Form

GRI REPORTS LIST

Request Form

The complete version of the GRI Reports List gives an aggregate overview of all centrally collected data points presented in GRI's Sustainability Disclosure Database for reports published from 1999 till present.

The Complete version of the GRI Reports List is free of charge for students for non-commercial use.

By returning a filled-in copy of this request form to GRI, you agree not to share any raw data from the list with third-parties. It is possible to use the data for your own research and the publication thereof, provided that the complete data set shall not be disclosed. You are also invited to share your final research with GRI.

Name	Third parties
Email address	J.O.Oluwadebi@edu.salford.ac.uk
Educational institution	University of Salford, Manchester, UK
Research title	Identifying Driving Factors of Quality Sustainability Reporting Practices in North America

☐ I confirm that no data from the received GRI Reports List will be used for commercial purposes

☐ I confirm that no data from the received GRI Reports List will be shared with third-parties

☐ I confirm to communicate the conclusions of the research to GRI, upon the research completion

In order to receive a copy of the complete version of the GRI Reports List free of charge, please return a filled-in copy of this request form to GRI, with all the check-boxes ticked, together with a scanned copy of your valid student ID/registration. Please send these to eshop@globalreporting.org

The enrollment proof (student ID, etc.) is used to verify the eligibility to receiving the Reports List free of charge. Please read about privacy here.

If you have any questions, please contact ReportRegistration@globalreporting.org

Appendix 02 – Email Response and Release of Reports List from GRI

REQUEST FOR THE COMPLETE VERSION OF GRI REPORTS LIST

5

TB

Tabitha Bailey <bailey@globalreporting.org>

To: Oluwadebi, Joseph Olawale (PG) <J.O.Oluwadebi@edu.salford.ac.uk>

Wed 4/17/2019 12:50 PM

66 KB 357 KB

Show all 3 attachments (12 MB) Save all to OneDrive - University of Salford Download all

Dear Joseph,

My apologies about the delay in sending this to you- we experienced some issues when we initially replied to your request for the reports list.

Please find attached the complete version of the GRI Reports List, which gives an aggregate overview of all centrally collected data points presented in GRI's Sustainability Disclosure Database for reports published from 1999 until present.

Please note that it is not allowed to share any raw data from the list with third-parties. It is possible to use the data for your own research and the publication thereof, provided that the complete data set shall not be disclosed.
Please share the results of your research with ReportRegistration@GlobalReporting.org when ready.

The enrollment proof (student ID, etc.) is used to verify the eligibility to receiving the Reports List free of charge. Please read about privacy here.

Should you have any questions, please feel free to contact me.

Good luck with your research!

Kind regards,
Tabitha

Appendix 03 – Certificate of Attendance and Presentation of Research Findings at the 7th International Conference on Sustainable Development (ICSD) in 2019, Rome, Italy

European Center of Sustainable Development

ROMA CAPITALE

CIT

Certificate of Appreciation

7th International Conference on Sustainable Development

04-05 September 2019, Rome, Italy

To the following presentation: Corporate Drivers of Sustainability Reporting Practices in Financial Services Sectors of North America

Authors: Joseph Olawale Oluwadebi, Dr. Jia Zhai, Dr. Dalu Zhang

Prof. Gian Paolo Caselli on Behalf of the Steering Committee

Signature

Date: September 04, 2019

Appendix 04 – Financial Service Institutions Analysed from G7 Countries

FINANCIAL SERVICE INSTITUTIONS

INDUSTRY	COUNTRY	NAME
BANK	CANADA	BANK OF MONTREAL
BANK	CANADA	CANADIAN IMPERIAL BANK OF COMMERCE
BANK	CANADA	IGM FINANCIAL
BANK	CANADA	LAURENTIAN BANK
BANK	CANADA	ROYAL BANK CANADA
BANK	CANADA	SCOTIA BANK
NON	CANADA	SUN LIFE FINANCIAL
BANK	CANADA	TORONTO DOMINION
BANK	FRANCE	CREDIT AGRICOLE S.A.
NON	FRANCE	AXA
BANK	FRANCE	BNP PARIBAS
NON	FRANCE	CNP ASSURANCES
NON	FRANCE	EURAZEO
BANK	FRANCE	NATIXIS
BANK	FRANCE	SOCIETE GENERALE
NON	FRANCE	WENDEL
BANK	GERMANY	AAREAL BANK AG
NON	GERMANY	ALLIANZ
BANK	GERMANY	COMMERZ BANK
NON	GERMANY	DEUTCHE BORSE GROUP
BANK	GERMANY	DEUTSCHE BANK
NON	GERMANY	HANNOVER RE
NON	GERMANY	TALANX
BANK	ITALY	BANCA GENERALI
BANK	ITALY	BPER BANCA
NON	ITALY	ASSICURAZIONI GENERALI
BANK	ITALY	INTESA SANPAOLO
BANK	ITALY	MEDIOLANUM GROUP
BANK	ITALY	UBI BANCA
BANK	ITALY	UNICREDIT BANK
NON	ITALY	UNIPOL GRUPPO
NON	JAPAN	DAI-ICHI LIFE HOLDINGS
BANK	JAPAN	DAIWA SECURITIES GROUP
NON	JAPAN	MS&AD HOLDINGS
BANK	JAPAN	MITSUBIAHI UFJ FINANCIAL GROUP
BANK	JAPAN	MIZUHO FINANCIAL GROUP
BANK	JAPAN	RESONA GROUP
BANK	JAPAN	SUMITOSMO MITSUI FINANCIAL GROUP
BANK	JAPAN	SUMITOMO MITSUI TRUST HOLDINGS
NON	JAPAN	SOMPO JAPAN NIPPONKOA HOLDINGS, INC
NON	JAPAN	T&D HOLDINGS, INC.
NON	UK	STANDARD LIFE ABERDEEN
BANK	UK	BARCLAYS PLC
BANK	UK	HSBC HOLDINGS
NON	UK	JUPITER FUND MANAGEMENT PLC
NON	UK	LEGAL & GENERAL GROUP PLC
BANK	UK	LLOYDS BANKING GROUP
NON	UK	LONDON STOCK EXCHANGE GROUP

NON	UK	OLD MUTUAL PLC
NON	UK	PROVIDENT FINANCIAL
BANK	UK	ROYAL BANK OF SCOTLAND
BANK	UK	SANTANDER
NON	USA	ALLSTATE
BANK	USA	AMERICAN EXPRESS COMPANY
BANK	USA	BBVA COMPASS
BANK	USA	BNY MELLON
BANK	USA	BANK OF AMERICA CORPORATION
BANK	USA	CAPITAL ONE
BANK	USA	CITI GROUP
BANK	USA	COMERICA BANK
BANK	USA	GOLDMAN SACHS
NON	USA	THE HARTFORD
BANK	USA	JPMORGAN CHASE & CO
BANK	USA	KEYCORP
NON	USA	KKR & CO. INC.
NON	USA	LEGG MASON GLOBAL ASSET MANAGEMENT
NON	USA	MARSH & McCLEANNAN COMPANIES
NON	USA	METLIFE INC
NON	USA	MOODY'S CORPORATION
BANK	USA	MORGAN STANLEYY
NON	USA	NASDAQ
NON	USA	NORTHERN TRUST
BANK	USA	PNC FINANCIAL SERVICES GROUP
NON	USA	PRUDENTIAL FIANANCIAL INC
BANK	USA	REGIONS FINANCIAL CORPORATION
NON	USA	S&P GLOBAL
BANK	USA	STATE STREET CORPORATION
BANK	USA	VISA
NON	USA	VORNADO REALTY TRUST
NON	USA	VOYA FINANCIAL
BANK	USA	WELLS FARGO & COMPANY

Appendix 05: Regression Diagnostic Tests

. xtset id year, yearly
panel variable: id (unbalanced)
time variable: year, 2014 to 2018, but with gaps
delta: 1 year

POOLED OLS REGRESSION MODEL

regress qsri fl bc ac os fa cv ls roe ne

Number of obs =	220
F(9, 210) =	2.95
Prob > F =	0.0025
R-squared =	0.1124
Adj R-squared =	0.0743
Root MSE =	0.18739

qsri	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
fl	0.002186	0.0010196	2.14	0.033	-0.0041959	0.0001761
bc	0.0651731	0.0553047	1.18	0.24	-0.0438504	0.1741966
ac	0.0030791	0.0110727	1.28	0.281	-0.0187489	0.024907
os	-0.1027756	0.0684114	-1.5	0.135	-0.2376367	0.0320856
fa	-0.0316642	0.0137605	-2.3	0.022	-0.0587906	-0.0045379
cv	-0.0101928	0.0110185	-0.93	0.356	-0.0319138	0.0115282
ls	0.0114451	0.0041586	2.75	0.006	0.0032471	0.0196431
roe	-0.0027103	0.0013149	-2.06	0.041	-0.0053024	-0.0001182
ne	-0.0180552	0.0123918	-1.46	0.147	-0.0424835	0.0063732
_cons	0.6920495	0.1512206	4.58	0	0.3939447	0.9901544

. estimates store ols

RANDOM EFFECTS REGRESSION MODEL

. xtreg qsri fl bc ac os fa cv ls roe ne, re

Random-effects GLS regression			Number of obs =	220
Group Variable:	id		Number of grounps =	81
R-sq	within =	0.0006		
	between =	0.1360	Obs per group: Min =	1
	overall =	0.0866	avg =	2.7
			max =	5
corr(u_i, X) = 0 (assumed)			Wald chi2 (9) =	7.82
			Prob > chi2 =	0.2524

qsri	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
fl	0.0018992	0.0015326	1.24	0.215	-0.0049029	0.0011046
bc	0.0726877	0.085655	0.85	0.396	-0.095193	0.2405684
ac	0.0053123	0.0176215	1.78	0.076	-0.0292253	0.0398498
os	-0.036258	0.0440358	-0.82	0.41	-0.1225666	0.0500507
fa	-0.03166	0.0190902	-1.66	0.097	-0.0690761	0.0057561
cv	-0.0032361	0.0127052	-0.25	0.799	-0.0281378	0.0216657
ls	0.0041739	0.0053159	0.79	0.432	-0.0062451	0.0145929
roe	-0.0011928	0.0012	-0.99	0.32	-0.0035448	0.0011593
ne	0.001913	0.0169877	0.11	0.91	-0.0313824	0.0352083
_cons	0.4456343	0.2116421	2.11	0.035	0.0308234	0.8604452

sigma_u	0.17828594	
sigma_e	0.10183073	
rho	0.75401719	(fraction of variance due to u_i)

. estimates store random

. xttest0

Breusch and Pagan Lagrangian multiplier test for random effects

qsri[id,t] = Xb + u[id] + e[id,t]

Estimated results:

	var	sd = sqrt (Var)
qsri	0.0379346	0.194768
e	0.0103695	0.1018307
u	0.0317859	0.1782859

Test: Var (u) = 0

chibar2 (01) = 61.85

Prob > chibar2 = 0.0000

FIXED EFFECTS REGRESSION MODEL

. xtreg qsri fl bc ac os fa cv ls roe ne, fe

Fixed-effects (within) regression			Number of obs =	220
Group Variable:	id		Number of grounps =	81
R-sq	within =	0.0217		
	between =	0.0000	Obs per group: Min =	1
	overall =	0.0007	avg =	2.7
			max =	5
corr(u_i, Xb) = -0.3588			F (8, 131) =	0.36
			Prob > F	0.9378

qsri	Coef.	Std. Err.	t	P>t	P>t	[95% Conf. Interval]	
fl	0.0010794	0.0032626	0.33	0.741		-0.0075335	0.0053747
bc	-0.109658	0.1997284	-0.55	0.584		-0.5047683	0.2854523
ac	0	(omitted)					
os	-0.0271574	0.0457527	-0.59	0.554		-0.1176672	0.0633523
fa	-0.0117328	0.0336991	-0.35	0.728		-0.0783977	0.0549321
cv	0.0000798	0.0172765	0	0.996		-0.0340971	0.0342568
ls	-0.0061048	0.0083566	-0.73	0.466		-0.0226362	0.0104265
roe	-0.0002925	0.001488	-0.2	0.844		-0.0032362	0.0026512
ne	0.044178	0.0344616	1.28	0.202		-0.0239953	0.1123513
_cons	0.1161797	0.4447134	0.26	0.794		-0.7635695	0.9959289

sigma_u	0.21122942	
sigma_e	0.10183073	
rho	0.81142037	(fraction of variance due to u_i)

F test that all u_i=0: F(80, 131) 7.25 Prob > F = 0.0000

. estimates store fixed

RANDOM EFFECTS REGRESSION MODEL

. xtreg qsri fl bc ac os fa cv ls roe ne, re

Random-effects GLS regression			Number of obs =	220
Group Variable:	id		Number of grounps =	81
R-sq	within =	0.0006		
	between =	0.1360	Obs per group: Min =	1
	overall =	0.0866	avg =	2.7
			max =	5
corr(u_i, X) = 0 (assumed)			Wald chi2 (9) =	7.82
			Prob > chi2 =	0.2524

qsri	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
fl	0.0018992	0.0015326	1.24	0.215	-0.0049029	0.0011046
bc	0.0726877	0.085655	0.85	0.396	-0.095193	0.2405684
ac	0.0053123	0.0176215	1.78	0.076	-0.0292253	0.0398498
os	-0.036258	0.0440358	-0.82	0.41	-0.1225666	0.0500507
fa	-0.03166	0.0190902	-1.66	0.097	-0.0690761	0.0057561
cv	-0.0032361	0.0127052	-0.25	0.799	-0.0281378	0.0216657
ls	0.0041739	0.0053159	0.79	0.432	-0.0062451	0.0145929
roe	-0.0011928	0.0012	-0.99	0.32	-0.0035448	0.0011593
ne	0.001913	0.0169877	0.11	0.91	-0.0313824	0.0352083
_cons	0.4456343	0.2116421	2.11	0.035	0.0308234	0.8604452

sigma_u	0.17828594	
sigma_e	0.10183073	
rho	0.75401719	(fraction of variance due to u_i)

. estimates store random

hausman fixed random

	---- Coefficients ----			
	(b) fixed	(B) random	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
fl	0.0010794	0.0018992	0.0008197	0.0028802
bc	-0.109658	0.0726877	-0.1823457	0.1804291
os	-0.0271574	-0.036258	0.0091005	0.0124159
fa	-0.0117328	-0.03166	0.0199272	0.0277704
cv	0.0000798	-0.0032361	0.0033159	0.011707
ls	-0.0061048	0.0041739	-0.0102787	0.0064478
roe	-0.0002925	-0.0011928	0.0009002	0.0008798
ne	0.044178	0.001913	0.0422651	0.0299837

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(8) = (b-B)'[(V_b-V_B)^(-1)](b-B)
= 10.40
Prob>chi2 = 0.2382

HETEROSKEDASTICITY

. hettest residual

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: residual

chi2(1) = 130.53
Prob > chi2 = 0.0000

RANDOM EFFECTS REGRESSION MODEL (ROBUST)

. xtreg qsri fl bc ac os fa cv ls roe ne,robust re

Random-effects GLS regression			Number of obs =	220
Group Variable:	id		Number of grounps =	81
R-sq	within =	0.0006		
	between =	0.1360	Obs per group: Min =	1
	overall =	0.0866	avg =	2.7
			max =	5
			Wald chi2 (9) =	16.81
corr(u_i, X) = 0 (assumed)			Prob > chi2 =	0.0417

(Std. Err. adjusted for 81 clusters in id)

qsri	Coef.	Robust Std. Err.	t	P>t	[95% Conf.	Interval]
fl	0.0018992	0.0009714	1.98	0.048	-0.0038031	0.0008676
bc	0.0726877	0.0760713	0.96	0.339	-0.0764096	0.2217847
ac	0.0523823	0.0209135	2.25	0.038	-0.035011	0.0456355
os	-0.036258	0.0554398	-0.65	0.513	0.144918	0.0724021
fa	-0.03166	0.187164	-1.69	0.091	0.0683434	0.0050234
cv	-0.0032361	0.0126236	-0.26	0.798	0.0279778	0.0215057
ls	0.0237425	0.015071	1.73	0.087	0.057659	0.0141137
roe	-0.0011928	0.0006367	-1.87	0.061	0.024407	0.0000551
ne	0.001913	0.228744	0.08	0.933	0.04292	0.0467459
_cons	0.4456343	0.2353132	0.89	0.058	0.0155711	0.9068396

sigma_u	0.17828594	
sigma_e	0.10183073	
rho	0.75401719	(fraction of variance due to u_i)

Appendix 06: Pilot study – Description and finding.

❖ **Pilot Study**

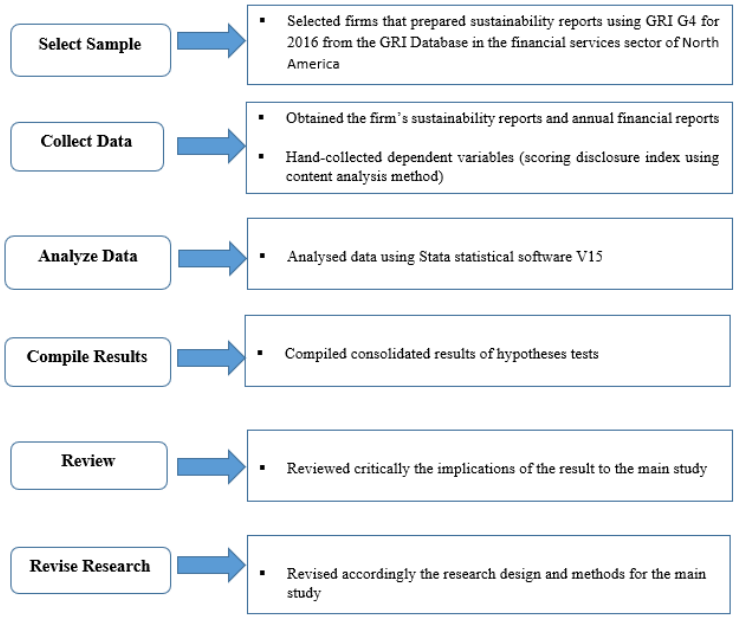
A pilot study is conducted by using the newly developed GRI-based scoring disclosure index to evaluate the corporate drivers of quality sustainability reporting practices and to identify amendments required to improve the scoring index and the main study. The term 'pilot study' refers to the aspect of a full-scale study that is minimally done or a trial run or feasibility study, which is done in preparation for the major study (Van Teijlingen & Hundley, 2002). Pilot study provides esteemed insights for other researchers and it might give advance warning about the likely area of failure of the main research undertaking, where research protocols have not been adhered to, or if the proposed methods are not appropriate or very complicated (Van Teijlingen & Hundley, 2002).

❖ **Design**

The pilot study was designed specifically to achieve the following objectives:

- Assessing the feasibility and validity of the developed GRI-based scoring reporting index
- Ascertaining the necessary amendments to improve the scoring reporting index
- Showing the preliminary findings
- To make amendments to the research design as necessary for the main study.

The design of the pilot study is depicted in Figure below.



Design of the pilot study

❖ Sample Selection

The total number of reports that made up the total population of the financial services sector of North America, which are prepared in accordance with GRI G4 from 2014 to 2018 is 97 (Year 2014 = 13; year 2015 = 21; year 2016 = 27; year 2017 = 24; year 2018 = 7). This is a default division of the total population into 5 groups. One of the 2016 company's reports was produced in French and thereby could not be part of the sample. The report for 2016 was reduced to 26, which is about 29% of the selected population.

The rationale for the selection of year 2016 reports which is the third group and it contained some of the firms that reported in the other year, thereby has the highest representation of the total population. This sampling approach is called stratified sampling. The representation here is by default and not randomly selected, therefore it is called stratified purposeful sampling. According to Neyman (1934), the principle behind the choice of stratified sampling can be either, sample selection is made at random or purposive selection. The stratified purposeful sampling is the samples made by purposive selection of groups of units that is presumed to give the same attributes as the whole (Neyman, 1934). Stratified purposeful sampling guarantees that certain cases that vary on preselected parameters are incorporated, (Sandelowski, 2000). Hence, there is an assurance that firms from each group will be represented in the sample.

❖ Data Collection

The sources of data for the dependent variables are stand-alone quality sustainability reports and annual financial reports. The reports of the sample companies for year 2016 were downloaded first from the company's website and from GRI database, then followed by hand-collected data using content analysis method, which is applied on each of the firms' reports and the data were scored in accordance with the scoring criteria for a newly developed scoring index.

❖ Research Model and Analysis

Research Model 1: Multiple Regression of Quality Sustainability Reporting

QSRI =

$$\beta_0 + \beta_1 ROE + \beta_2 BC + \beta_3 FA + \beta_4 FS + \beta_5 CV + \beta_6 LS + \epsilon$$

This empirical model is used to show the effects of profitability, board composition, firm age, firm size, corporate visibility, and listing status on total scores of quality sustainability reporting (QSRI).

Summary of Multiple Regression of Quality Sustainability Reporting

Independent Variables	Predicted Sign	Coefficient	t-value	p-value
Constant		81.008	3.51	0.002
Profitability (ROE)	+	-3.732	-0.04	0.969
Board Composition (BC)	+	17.552	0.78	0.446
Firm Age (FA)	+	0.047	0.45	0.656
Firm Size (FS)	+	9.240	0.65	0.523
Visibility (CV)	+	-0.000	-0.46	0.652
Listing Status (LS)	+	0.314	1.54	0.141
R -Squared	0.066			
Adjusted R^2	-0.167			
Number of obs	26			

The R^2 of the multiple regressions in table above is 6.6% with 26 observations. Profitability is found to be statistically insignificant with p-value of 96%. This result is not in line with the predicted sign, but consistent with the findings of Brammer and Pavelin (2006), Clarkson et al. (2008), Clarkson et al. (2011), and Andrikopoulos et al. (2014); Prado-Lorenzo et al. (2009). On the other hand, there are some other researchers that found significant relationship between profitability and sustainability reporting(Nandi & Ghosh, 2013; Zhang, 2013).

Board composition with number of independent directors as proxy, considered to be the instrument of monitoring and to control board's activities, which focus more attention to the stakeholders' interest in comparison with executive directors. Some previous researchers have found positive and statistically significant relationship between quality sustainability reporting and independent directors (Alves et al., 2012; Fuente, García-Sanchez, & Lozano, 2017; A. Khan et al., 2013a; Nandi & Ghosh, 2013). However, the result of this study of p-value of 44.6%, which is statistically insignificant and contrary to the predicted sign, but still consistent with the findings of some researchers (Amran et al., 2014; Faisal et al., 2012; Mohammed Hossain & Reaz, 2007; Shamil et al., 2014).

Age in this study is found to be statistically insignificant with the p-value of 65.6%. Other researchers found the similar result of no significant or negative relationship between age and sustainability reporting (Mohammed Hossain & Reaz, 2007; Marquis & Qian, 2013; Michelon & Parbonetti, 2012; Shamil et al., 2014). By contrast, some other researchers observed positive relationship (Bayoud et al., 2012; Wuttichindanon, 2017).

The result of the firm size shows a p-value of 52.3%, which indicates a non-significant effect between the size of the firm and the sustainability reporting. Other researchers with similar outcome support this result (Roberts, 1992; Smith, Yahya, & Marzuki Amiruddin, 2007). However, Many researchers oppose to this result by empirically finding positive relationship between firm size and sustainability reporting, in fact some researcher see firm size as a key driver of sustainability reporting (Andrikopoulos et al., 2014; Bayoud et al., 2012; Christopher & Filipovic, 2008; Dienes et al., 2016; Jennifer Ho & Taylor, 2007).

Corporate visibility has a p-value of 65.2%, which indicates the non-statistical significant between corporate visibility and sustainability reporting. Clarkson et al. (2008), Clarkson et al. (2011), and Brammer and Pavelin (2006) arrived at the same result in their empirical research relationship between visibility and sustainability disclosure as they found no significant influence between the two variables. Meanwhile, other researchers oppose to this result and found positive significant relationship between corporate visibility and sustainability reporting (Gamerschlag et al., 2011; Kent & Monem, 2008; Michelon, 2011; Jianling Wang et al., 2013).

The listing status does not have any significant relationship with the sustainability reporting with the p-value of 14.1%. Mohammed Hossain and Reaz (2007) got similar result in their empirical study of voluntary disclosure by banks in Indian. They found no statistically significant relationship between Listing Status and voluntary disclosure.

Research Model 2: Sustainability Reporting Categories

Sustainability reporting under global reporting initiatives (GRI) is broken down into four categories for financial sector namely: Economic; Environmental; Social and Financial Services Sector Supplement (FSSS). The study carries out multiple

regressions on these categories to identify the reasons and explain the variation in the specific area of sustainability reporting practices. The results shown in table below indicate the total score of sustainability reporting for each of the four key categories. The investigation of different categories, which identify the different key domain of sustainability reporting, will have the result that will show the importance of variations. It is supported by Jennifer Ho and Taylor (2007) and S. M. Williams (1999).

Multiple Regression Results

Independent Variables	**ECDI**	**ENDI**	**SODI**	**FSDI**
Profitability	0.999 (0.0211)	0.888 5.8158	0.697 (17.1379)	0.099* 45.9441
Board Composition	0.866 0.5290	0.146 16.5166	0.474 (8.4478)	0.277 (7.9187)
Firm Age	0.082* 0.0239	0.497 0.0316	0.741 0.0162	0.417 0.0247
Firm Size	0.777 4.8300	0.182 8.2006	0.620 3.1700	0.793 1.0200
Corporate Visibility	0.840 (3.4100)	0.389 (0.0000)	0.727 (0.0000)	0.793 (0.0000)
Listing Status	0.264 (1.2208)	0.885 (0.5455)	0.191 (5.3677)	0.145 (3.6823)
R -Squared	0.2122	0.2590	0.1342	0.1898
Adjusted R^2	(0.0366)	0.0250	(0.1392)	(0.0661)
Number of obs	26	26	26	26

Theme with p-value (* indicates statistically significant variable at the 0.10 level of confidence.) and positive and negative () coefficient. ECDI (Economic Disclosure Index), ENDI (Environmental Disclosure Index), SODI (Society Disclosure Index), FSDI (Financial Services Sector Supplement Disclosure Index)

- **Economic Disclosure**

This empirical model is used to examine the firm's profitability, corporate governance, age, size, corporate visibility, and listing status on economic disclosure of financial service firms in their sustainability reporting.

ECDI =

$$\beta_0 + \beta_1 ROE + \beta_2 BC + \beta_3 FA + \beta_4 FS + \beta_5 CV + \beta_6 LS + \epsilon$$

The regression analysis in table on economic disclosure had R^2 21.22% which indicates the percentage the models explain on the variability of the response or outcome data around the mean. The regression also shows that profitability, board composition, firm size, firm visibility, and listing status are statistically insignificant as they have p-value above 10% and the outcome oppose the predicted positive sign. Only age has p-value that is below 10% but above 5% (p>0.05 <0.10)

- **Environmental Disclosure**

The study employed the following empirical model to identify the impact of profitability, corporate governance, age, size, corporate visibility and Listing Status on environmental reporting.

ENDI =

$$\beta_0 + \beta_1 ROE + \beta_2 BC + \beta_3 FA + \beta_4 FS + \beta_5 CV + \beta_6 LS + \epsilon$$

Environmental issues and challenges have been a major concern for many years and much more complex in the political world today. The reporting is becoming a more frenzied topic in the corporate world of today. It ranges from climate change to ozone depletion to biodiversity loss and ocean exhaustion(Gupta & Mason, 2014).

The regression analysis on environmental reporting with six independent variables shows R^2 of 25.9% and adjusted R^2 of 2.5%. None of the p-value of independent variables is significant; hence, profitability, board composition, age, size, corporate visibility, and listing status are not statistically significant related to environment reporting at 5% and 10% confidence levels. By contrast, Cho and Patten (2007) and Cowen et al. (1987) found the variables to be positive and statistically significant arguing that environmentally sensitive industries have moral reasons to report more information on their environmental performance. This study is still sketchy to arrive at the conclusion as to the relationship between the environmental disclosure and other variables since only 26 observations were used.

- **Social Disclosure**

The following empirical model is used to show the impact of profitability, corporate governance, age, size, corporate visibility, and listing status on social reporting of firms in the financial sector of North America that are listed in the Global Reporting Initiative database for 2016.

SODI =

$$\beta_0 + \beta_1 ROE + \beta_2 BC + \beta_3 FA + \beta_4 FS + \beta_5 CV + \beta_6 LS + \epsilon$$

Social disclosure has the highest disclosed items in sustainability reporting. According to GRI G4 sustainability reporting guidelines, social category is divided into four sub-categories, which are labour practices and decent work, human rights, society, and product responsibility. Regression results of social disclosure is shown as R^2 13.42% and Adjusted R^2 -13.92%. The p-values of all the six independent variables are statistically insignificant in relation to the social disclosure. Again, the study is still sketchy to reach a conclusion since the number of observations is 26 for the pilot study. The study will get a robust result when the data for the five years are included.

- **Financial Services Sector Supplement Disclosure**

Financial services sector supplement disclosure (FSSSD) are set of disclosures, which are to be used by all organisations in the financial services sector (GRI, 2013). These disclosures cover all the key aspects of sustainability performance that are quite useful and relevant to the financial services sector. FSSSD is to be used as a supplement and not as a replacement of the G4 Sustainability Reporting Guidelines (GRI, 2013).

The following empirical model is developed to examine the effect of firm's profitability, board composition, age, size, corporate visibility, and listing status on the financial services sector supplement disclosure.

FSDI =

$$\beta_0 + \beta_1 ROE + \beta_2 BC + \beta_3 AGE + \beta_4 SIZE + \beta_5 CV + \beta_6 LS + \epsilon$$

In the results of the regression analysis on the financial services sectors disclosure with the six independent variables, the R^2 shows 18.98% while the Adjusted R^2 is -6.61%.

Only profitability with ROE as proxy shows the p-value of 9.9%, which is acceptable level of positive significant at 10% confidence interval. Other independent variables have p-value above 10% and are not statistically significant. Although, the study cannot come into conclusion because of the small number of observations used for the study, nonetheless, for the study to found significant between profitability and FSSSD shows the importance of this category, which is unique to financial sector.

- **Summary of Results and Consequence for Main Research**

This study cannot arrive at conclusion that the outcome of the results of model 1 and 2 in this pilot study is final and binding, because of the limited number of observations used for the study. The study only used 2016 data for the pilot study. Other researchers that have opposing results have larger samples size Qiu et al. (2016) use 629 firm-year observations for their sample size in investigating the environmental and social disclosures. Mohammed Hossain and Reaz (2007) use 38 banks in 76 observations as sample size to examine the determinants and characteristics of voluntary disclosure by Indian banking companies. Jason Zezhong Xiao et al. (2004) carry out investigation on determinants of corporate social and environmental reporting in Hong Kong and use 33 listed companies in 157 observation. Ameer and Othman (2012) examine the top 100 sustainable global companies in 2008 as the study sample size to investigate sustainability practices and corporate financial performance. Shamil et al. (2014) examine 150 companies in their study to determine the influence of board characteristics on sustainability reporting. Gamerschlag et al. (2011) investigate the determinants of voluntary CSR disclosure with empirical evidence from Germany and use 470 firm-year observations. Hence, small observation impacts on the results. This study is still ongoing; there is possibility of getting different results when all the five years observation (2014 to 2018) is used.

The pilot study, which comprised of 26 firms with also 26 observations by using weighted approach of 3 scales (0,1,2) to design the scoring disclosure index using content analysis method. The criteria used for the pilot study could not find appropriate significant positive relationship between the response and explanatory variables except with ECDI and age, and FSDI and profitability with 10% confidence level. This is an indication that age of a firm could be a determinant for making more economic theme disclosures. Also, profitability could be a driving factor to more industry specific

disclosures. These results clarify the support of Dong and Burritt (2010) that examined cross-sectional benchmarking of social and environmental reporting practice and found out that issues of sustainability have bearing on different industrial sectors in different ways. Also other studies have a grown interest in industry-specific contexts in sustainability reporting as general sectors reporting provide broad and nonspecific sustainability disclosures that are not relevant in measuring their specific sustainability reporting practice (Guthrie et al., 2008; Jizi et al., 2014; Patten & Zhao, 2014; Turley-McIntyre et al., 2016).

However, the scoring disclosure index and criteria were reviewed and improved for the main study as follows:

- The weighted approach measuring scale was increased from 3 to 4 (not present=0; present but not quantified or pictorial =1; quantified but not pictorial = 2 and pictorial =3. These will bring complete amendment to the scoring disclosure index.
- The main study has an expanded sample size of 220 observations, which cover 5 years 2014 to 2018 being effective years covered by GRI-G4
- The theme category disclosures were increased from 4 to 7 to accommodate other categories in GRI G4 guidelines.

Thereby the quality sustainability reporting practices in financial services sector was investigated in a larger scale to cover more than two countries.

Appendix 07 – Comprehensive modified table of hand-collected data from 81 companies with 220 observations using content analysis.

YEAR 2018

	DEPENDENT VARIABLES	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018
	GRI-G4	FRA	FRA	ITA	ITA	JAP	JAP	UK	UK	UK	UK	UK	USA	CAN
	SSD	WEND	BNP	AGEN	UNIP	MSAD	SMFG	BARC	HSBC	LEG&	LSE	LLOY	KKR	LAUR
		SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE
	OBSERVATIONS	1	2	3	4	5	6	7	8	9	10	11	12	13
CATEGORY	ECONOMIC													
Aspect	Economic Performance													
1	G4-EC1	1	2	2	2	2	1	2	1	2	1	1	1	1
2	G4-EC2	2	1	1	2	1	2	2	1	2	2	2	2	2
3	G4-EC3	2	1	1	2	2	1	1	1	1	1	1	1	1
4	G4-EC4	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	Market Presence													
5	G4-EC5	0	1	1	1	1	0	1	0	1	1	1	0	0
6	G4-EC6	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	Indirect Economic Impacts													
7	G4-EC7	2	2	2	1	1	2	2	2	2	1	2	2	0
8	G4-EC8	0	0	0	2	0	0	0	0	0	0	0	0	0
Aspect	Procurement Practices													
9	G4-EC9	1	0	0	2	0	0	0	0	0	0	0	0	0
	SUB-TOTAL ECONOMIC	8	7	7	12	7	6	8	5	8	6	7	6	4
CATEGORY	ENVIRONMENTAL													
Aspect	Materials													
10	G4-EN1	1	0	0	1	2	1	1	2	1	2	0	0	0
11	G4-EN2	1	0	0	1	2	1	2	0	0	2	0	0	0
12	G4-EN3	1	1	0	2	2	2	2	1	1	2	1	1	2

13	G4-EN4	1	1	0	2	2	2	2	1	1	2	1	1	0
14	G4-EN5	2	0	0	0	0	2	2	0	0	0	0	0	0
15	G4-EN6	1	1	0	2	1	2	2	0	2	2	1	0	0
16	G4-EN7	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Water**													
17	G4-EN8	2	0	0	1	2	2	2	0	1	2	2	1	0
18	G4-EN9	0	0	0	0	0	0	0	0	0	0	0	0	0
19	G4-EN10	0	0	0	0	0	0	2	0	1	1	0	0	0
	Biodiversity													
20	EN11	1	0	0	0	0	1	0	1	0	0	0	0	0
21	EN12	0	0	0	0	0	0	0	0	0	0	0	0	0
22	G4-EN13	1	0	0	0	0	0	0	0	0	0	0	0	2
23	G4-EN14	0	0	0	0	1	0	0	0	0	0	0	0	0
Aspect	**Emissions**													
24	G4-EN15	2	1	0	2	2	2	2	1	2	2	2	1	2
25	G4-EN16	2	1	0	2	2	2	2	1	2	2	2	1	2
26	G4-EN17	2	1	0	2	2	2	2	1	2	2	2	1	0
27	G4-EN18	2	0	0	0	0	0	2	0	2	0	2	0	0
28	G4-EN19	2	2	2	1	2	2	2	1	1	2	2	0	0
29	G4-EN20	0	0	0	0	0	0	0	0	0	0	0	0	0
30	G4-EN21	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Effluents (Sewage) and Waste**													
31	G4-EN22	0	0	0	0	0	0	0	0	0	0	0	0	0
32	G4-EN23	2	0	0	2	2	2	2	0	1	2	0	1	2
33	G4-EN24	0	0	0	0	0	0	0	0	0	0	0	0	0
34	G4-EN25	0	0	0	0	0	0	0	0	0	0	0	0	0
35	G4-EN26	0	0	0	0	0	0	0	0	0	0	0	0	0
36	G4-EN27	0	0	0	0	1	1	2	0	0	0	0	0	0
37	G4-EN28	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Compliance**													
38	G4-EN29	0	0	0	0	0	0	1	0	0	0	0	0	0

Aspect	**Transport**													
39	G4-EN30	2	0	0	2	2	2	2	0	2	2	2	1	2
Aspect	**Overall**													
40	G4-EN31	2	1	2	1	2	2	2	0	2	0	2	2	1
Aspect	**Supplier Environmental Assessment**													
41	G4-EN32	2	0	1	1	1	0	1	1	1	0	1	0	0
42	G4-EN33	1	0	1	1	1	0	1	1	1	0	1	0	0
43	G4-EN34	1	0	0	0	0	0	0	0	0	0	0	0	0
	SUB-TOTAL ENVIRONMENTAL	**31**	**9**	**6**	**23**	**29**	**28**	**36**	**11**	**23**	**25**	**21**	**10**	**13**
CATEGORY	**SOCIAL**													
SUB-CAT	**LABOUR PRACTICES AND DECENT WORK**													
Aspect	**Employment**													
44	G4-LA1	2	1	1	2	2	0	2	0	1	2	0	0	0
45	G4-LA2	0	0	0	0		0	1	0	0	0	0	0	1
46	G4-LA3	0	2	0	2	2	2	2	2	0	0	2	2	2
Aspect	**Labour/Management Relations**													
47	G4-LA4	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Occupational Health and Safety**													
48	G4-LA5	0	0	0	1	0	1	0	0	0	0	0	0	0
49	G4-LA6	2	0	0	2	2	0	0	0	0	2	0	0	0
50	G4-LA7	0	0	0	0	0	0	0	0	0	0	0	0	0
51	G4-LA8	1	0	0	1	0	0	1	2	1	1	0	2	1
52	G4-LA9	2	1	2	2	0	0	2	2	0	2	0	0	0
53	G4-LA10	2	2	2	2	2	2	2	2	2	2	1	2	2
54	G4-LA11	2	0	2	2	0	1	2	1	0	2	0	0	0

Aspect	**Diversity and Equal Opportunity**													
55	G4-LA12	2	2	1	2	2	2	2	2	2	2	2	2	2
Aspect	**Equal Remuneration for Women and Men**													
56	G4-LA13	0	2	1	2	1	0	1	2	2	1	1	0	0
Aspect	**Supplier Assessment for Labour Practices**													
57	G4-LA14	2	0	1	1	1	0	1	1	1	1	1	0	0
58	G4-LA15	1	0	1	1	1	0	1	1	1	1	1	0	0
Aspect	**Labour Practices Grievance Mechanisms**													
59	G4-LA16	1	0	0	0	0	0	0	0	0	0	0	0	0
	SUB-TOTAL LP&DW	**17**	**10**	**11**	**20**	**13**	**8**	**17**	**15**	**10**	**16**	**8**	**8**	**8**
CATEGORY	**HUMAN RIGHTS**													
Aspect	**Investment**													
60	G4-HR1	1	2	2	1	2	2	1	2	1	1	1	1	1
61	G4-HR2	2	0	0	2	2	2	2	2	0	2	0	0	0
Aspect	**Non-discrimination**													
62	G4-HR3	1	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Freedom of Association and Collective Bargaining**													
63	G4-HR4	2	1	0	0	1	1	2	2	0	2	0	0	1
Aspect	**Child Labour**													
64	G4-HR5	1	0	0	1	1	1	2	2	1	2	0	0	0
Aspect	**Forced or Compulsory Labour**													

65	G4-HR6	1	0	0	1	1	1	2	2	1	2	0	0	0
Aspect	**Security Practices**													
66	G4-HR7	1	1	1	2	1	2	2	2	0	2	0	1	2
Aspect	**Indigenous Rights**													
67	G4-HR8	1	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Assessment**													
68	G4-HR9	0	0	0	0	0	2	0	0	0	0	0	0	0
Aspect	**Supplier Human Rights Assessment**													
69	G4-HR10	2	0	1	1	1	0	1	1	1	1	1	0	0
70	G4-HR11	1	0	1	1	1	0	1	1	1	1	1	0	0
71	G4-HR12	1	0	0	0	0	0	0	0	0	0	0	0	0
	SUB-TOTAL HR	**14**	**4**	**5**	**9**	**10**	**11**	**13**	**14**	**5**	**13**	**3**	**2**	**4**
CATEGORY	**SOCIETY**													
Aspect	**Local Communities**													
72	G4-SO1	2	1	0	2	1	2	1	2	2	2	2	2	2
73	G4-SO2	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Anti-Corruption**													
74	G4-SO3	1	1	1	1	1	0	0	0	0	0	0	0	0
75	G4-SO4	2	2	0	2	2	2	2	2	0	2	0	0	0
76	G4-SO5	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Public Policy**													
77	G4-SO6	1	0	0	0	0	0	1	0	1	2	0	0	0
Aspect	**Anti-Competitive Behaviour**													
78	G4-SO7	1	0	0	0	0	0	0	0	0	0	0	0	0

Aspect	**Compliance**													
79	G4-SO8	1	0	0	0	0	0	1	0	0	0	0	0	0
Aspect	**Supplier Assessment for Impacts on Society**													
80	G4-SO9	2	0	1	1	1	0	1	1	1	0	1	0	0
81	G4-SO10	1	0	1	1	1	0	1	1	1	0	1	0	0
Aspect	**Grievance Mechanisms for Impacts on Society**													
82	G4-SO11	1	0	0	0	0	0	0	0	0	0	0	0	0
	SUB-TOTAL SOCIETY	**12**	**4**	**3**	**7**	**6**	**4**	**7**	**6**	**5**	**6**	**4**	**2**	**2**
CATEGORY	**PRODUCT RESPONSIBILITY**													
Aspect	**Customer Health and Safety**													
83	G4-PR1	0	0	0	0	0	0	0	0	0	0	0	0	0
84	G4-PR2	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Product and Services Labelling**													
85	G4-PR3	0	0	0	0	0	0	0	0	0	0	0	0	0
86	G4-PR4	0	0	0	0	0	0	0	0	0	0	0	0	0
87	G4-PR5	1	1	2	2	1	1	2	2	0	2	0	0	1
Aspect	**Marketing Communications**													
88	G4-PR6	0	0	0	0	0	0	0	0	0	0	0	0	0
89	G4-PR7	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Customer Privacy**													
90	G4-PR8	0	0	0	2	1	1	2	2	0	1	0	0	1
Aspect	**Compliance**													
91	G4-PR9	1	0	0	0	0	0	1	0	0	0	0	0	0
	SUB-TOTAL PR	**2**	**1**	**2**	**4**	**2**	**2**	**5**	**4**	**0**	**3**	**0**	**0**	**2**

CATEGORY	**FSSD**													
92	FS1	1	1	1	1	0	2	1	2	1	2	1	1	1
93	FS2	1	2	2	1	2	2	2	2	1	1	1	1	2
94	FS3	1	2	2	1	2	2	2	2	1	1	1	1	2
95	FS4	2	2	2	2	2	2	2	2	2	2	1	2	2
96	FS5	2	2	1	2	2	2	2	2	2	2	2	2	2
97	FS6	1	0	0	1	0	2	2	0	0	0	0	1	2
98	FS7	2	2	0	2	2	1	2	2	2	2	2	2	2
99	FS8	2	2	0	2	1	1	2	1	1	2	1	2	1
100	**Assurance is mandated in Europe (see pg 46 of LSE 2016) FS9**	1	0	0	0	2	2	2	1	1	1	2	0	1
101	FS10	0	0	0	0	0	2	0	0	0	0	0	0	0
102	FS11	0	0	0	0	0	0	0	0	0	0	0	0	0
103	FS12	1	1	1	1	1	0	0	0	1	0	0	1	0
104	FS13	0	1	0	0	1	2	2	2	2	1	0	1	1
105	FS14	1	1	1	2	1	2	2	1	0	1	2	0	2
106	FS15	1	1	2	2	1	1	2	2	1	2	1	1	2
107	FS16	1	1	0	2	1	2	1	1	2	2	0	0	2
	SUB-TOTAL FSSS	**17**	**18**	**12**	**19**	**18**	**25**	**24**	**20**	**17**	**19**	**14**	**15**	**22**

YEAR 2017

	DEPENDENT VARIABLES	**2017**	**2017**	**2017**	**2017**	**2017**	**2017**	**2017**	**2017**	**2017**	**2017**	**2017**	**2017**	**2017**
	GRI-G4	**FRA**	**FRA**	**FRA**	**FRA**	**FRA**	**GER**	**GER**	**ITA**	**ITA**	**ITA**	**ITA**	**JAP**	**JAP**
	SSD	**AGRI**	**BNP**	**EURA**	**SOCI**	**WEND**	**AARE**	**DEUT**	**BPER**	**MEDI**	**UNCR**	**UNIP**	**MUZU**	**MSAD**
		SCORE	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**
	OBSERVATIONS	14	15	16	17	18	19	20	21	22	23	24	25	26
CATEGORY	**ECONOMIC**													
Aspect	**Economic Performance**													
1	G4-EC1	1	1	3	2	1	1	3	3	3	3	2	1	1
2	G4-EC2	2	0	2	1	2	1	1	3	0	3	2	2	2

3	G4-EC3	2	1	2	2	2	1	1	1	1	3	2	2	1
4	G4-EC4	0	0	0	0	0	0	0	0	0	3	0	0	0
Aspect	**Market Presence**													
5	G4-EC5	0	0	0	0	0	1	1	3	2	0	2	0	0
6	G4-EC6	1	0	1	0	1	0	1	0	0	0	1	0	0
Aspect	**Indirect Economic Impacts**													
7	G4-EC7	1	1	1	2	1	1	2	2	0	3	1	2	0
8	G4-EC8	0	0	0	0	0	0	3	3	3	3	2	0	0
Aspect	**Procurement Practices**													
9	G4-EC9	1	0	2	1	1	0	0	3	3	0	1	0	0
	SUB-TOTAL ECONOMIC	**8**	**3**	**11**	**8**	**8**	**5**	**12**	**18**	**12**	**18**	**13**	**7**	**4**
CATEGORY	**ENVIRONMENTAL**													
Aspect	**Materials**													
10	G4-EN1	0	1	2	2	2	1	3	3	3	3	1	0	2
11	G4-EN2	2	1	1	0	1	0	2	3	0	0	1	0	1
12	G4-EN3	0	2	3	2	2	1	3	3	3	3	1	0	1
13	G4-EN4	0	2	0	2	1	0	0	0	0	0	1	0	1
14	G4-EN5	0	0	0	0	0	0	0	3	0	3	0	0	0
15	G4-EN6	2	1	2	1	2	0	3	3	3	0	0	0	0
16	G4-EN7	0	0	0	0	0	0	3	0	0	3	0	0	0
Aspect	**Water**													
17	G4-EN8	0	1	3	2	1	0	3	0	0	3	1	0	0
18	G4-EN9	1	0	0	0	2	0	1	0	0	0	0	0	0
19	G4-EN10	1	0	0	0	1	0	0	0	1	0	0	0	0
	Biodiversity													
20	EN11	0	0	0	0	0	0	0	0	0	0	0	0	0
21	EN12	0	0	0	0	0	0	0	0	0	0	0	0	0

22	G4-EN13	0	0	0	0	0	0	0	0	0	0	0	0	0
23	G4-EN14	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Emissions**													
24	G4-EN15	0	2	3	2	2	2	3	3	3	3	2	1	1
25	G4-EN16	0	2	3	2	2	2	3	3	3	3	2	1	1
26	G4-EN17	0	2	3	2	2	2	3	0	3	3	2	1	1
27	G4-EN18	0	0	0	0	0	0	0	3	0	0	0	1	0
28	G4-EN19	2	1	1	1	1	1	3	3	0	3	0	1	2
29	G4-EN20	0	0	0	0	0	0	0	0	0	3	0	0	0
30	G4-EN21	0	0	3	0	2	0	0	0	0	3	0	0	0
Aspect	**Effluents (Sewage) and Waste**													
31	G4-EN22	0	1	2	0	2	0	3	3	0	0	0	0	1
32	G4-EN23	0	0	3	2	2	0	3	1	1	3	2	0	1
33	G4-EN24	0	0	0	0	0	0	0	0	0	0	0	0	0
34	G4-EN25	0	0	0	0	0	0	0	0	0	0	0	0	0
35	G4-EN26	0	0	0	0	0	0	0	0	0	0	0	0	2
36	G4-EN27	0	0	0	0	0	0	0	0	0	3	0	0	1
37	G4-EN28	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Compliance**													
38	G4-EN29	0	0	3	1	0	0	0	3	0	3	0	0	0
Aspect	**Transport**													
39	G4-EN30	0	2	3	2	1	2	2	0	3	3	1	1	1
Aspect	**Overall**													
40	G4-EN31	2	1	1	1	1	0	2	1	1	0	1	1	1
Aspect	**Supplier Environmental Assessment**													
41	G4-EN32	0	0	0	1	1	1	0	3	3	3	1	0	0
42	G4-EN33	0	0	0	0	0	0	0	0	0	0	0	0	0
43	G4-EN34	0	0	0	0	0	0	0	0	0	0	0	0	0

	SUB-TOTAL ENVIRONMENTAL	**10**	**19**	**36**	**23**	**28**	**12**	**40**	**38**	**27**	**48**	**16**	**7**	**17**
CATEGORY	**SOCIAL**													
SUB-CAT	**LABOUR PRACTICES AND DECENT WORK**													
Aspect	**Employment**													
44	G4-LA1	0	1	3	2	2	3	3	3	3	3	2	1	0
45	G4-LA2	0	1	1	1	1	0	3	3	3	3	1	0	0
46	G4-LA3	0	0	0	2	2	0	3	3	0	0	0	1	0
Aspect	**Labour/Management Relations**													
47	G4-LA4	0	0	0	0	0	0	0	3	0	3	0	0	0
Aspect	**Ocupational Health and Safety**													
48	G4-LA5	0	0	0	1	1	0	3	0	0	3	1	0	0
49	G4-LA6	0	0	3	2	2	2	3	3	3	3	0	0	0
50	G4-LA7	0	0	0	0	0	0	0	0	0	0	0	0	0
51	G4-LA8	0	0	1	1	1	0	1	0	0	3	1	0	0
52	G4-LA9	1	1	3	2	1	3	3	3	3	3	2	0	0
53	G4-LA10	1	1	2	2	2	2	2	3	1	3	2	1	2
54	G4-LA11	0	1	1	1	1	3	3	3	1	3	2	1	1
Aspect	**Diversity and Equal Opportunity**													
55	G4-LA12	1	1	3	2	1	2	3	3	3	3	2	2	1
Aspect	**Equal Remuneration for Women and Men**													
56	G4-LA13	0	1	1	1	1	3	3	3	2	3	2	0	0
Aspect	**Supplier Assessment for Labour Practices**													
57	G4-LA14	0	0	0	0	0	0	1	0	1	1	1	0	0

58	G4-LA15	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Labour Practices Grievance Mechanisms**													
59	G4-LA16	0	0	0	1	0	0	1	3	1	3	2	1	0
	SUB-TOTAL LP&DW	**3**	**7**	**18**	**18**	**15**	**18**	**32**	**33**	**21**	**37**	**18**	**7**	**4**
CATEGORY	**HUMAN RIGHTS**													
Aspect	**Investment**													
60	G4-HR1	2	1	3	2	3	0	3	0	1	3	1	2	0
61	G4-HR2	1	1	1	2	1	1	3	0	1	3	2	0	1
Aspect	**Non-discrimination**													
62	G4-HR3	0	0	1	2	0	3	3	3	0	3	1	1	0
Aspect	**Freedom of Association and Collective Bargaining**													
63	G4-HR4	0	1	1	2	2	0	1	3	0	2	1	0	0
Aspect	**Child Labour**													
64	G4-HR5	0	0	2	2	2	1	1	0	0	2	1	1	0
Aspect	**Forced or Compulsory Labour**													
65	G4-HR6	0	0	2	2	2	1	1	0	0	1	1	1	0
Aspect	**Security Practices**													
66	G4-HR7	0	1	0	0	1	1	1	0	1	1	1	1	0
Aspect	**Indigenous Rights**													
67	G4-HR8	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Assessment**													
68	G4-HR9	0	0	0	0	0	0	0	0	0	1	1	1	0

Aspect	**Supplier Human Rights Assessment**													
69	G4-HR10	1	1	1	1	1	0	3	0	1	3	1	0	0
70	G4-HR11	0	1	0	0	0	3	0	0	0		0	0	0
71	G4-HR12	0	0	0	1	0	0	1	0	1	3	2	1	0
	SUB-TOTAL HR	**4**	**6**	**11**	**14**	**12**	**10**	**17**	**6**	**5**	**22**	**12**	**8**	**1**
CATEGORY	**SOCIETY**													
Aspect	**Local Communities**													
72	G4-SO1	2	2	0	1	1	0	2	1	3	3	2	0	2
73	G4-SO2	0	0	0	1	0	0	0	0	0	0	0	0	0
Aspect	**Anti-Corruption**													
74	G4-SO3	0	0	0	0	0	3	1	3	0	3	1	0	0
75	G4-SO4	0	1	3	2	2	3	3	3	3	3	2	1	0
76	G4-SO5	0	0	0	0	0	3	1	3	0	0	1	0	0
Aspect	**Public Policy**													
77	G4-SO6	0	0	0	0	0	0	1	3	0	0	0	0	0
Aspect	**Anti-Competitive Behaviour**													
78	G4-SO7	2	0	1	1	1	3	1	3	1	3	0	0	0
Aspect	**Compliance**													
79	G4-SO8	0	0	0	1	0	3	0	3	3	3	0	0	0
Aspect	**Supplier Assessment for Impacts on Society**													
80	G4-SO9	0	1	0	1	0	0	1		1	1	1	0	0
81	G4-SO10	0	0	0	0	0	0	0	3	0	0	0	0	

Aspect	**Grievance Mechanisms for Impacts on Society**													
82	G4-SO11	0	1	0	1	0	0	1	3	1	0	2	1	0
	SUB-TOTAL SOCIETY	**4**	**5**	**4**	**8**	**4**	**15**	**11**	**25**	**12**	**16**	**9**	**2**	**2**
CATEGORY	**PRODUCT RESPONSIBILITY**													
Aspect	**Customer Health and Safety**													
83	G4-PR1	0	0	0	0	1	0	1	0	0	0	1	0	0
84	G4-PR2	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Product and Services Labelling**													
85	G4-PR3	0	0	0	0	0	0	0	3	0	0	0	0	0
86	G4-PR4	0	0	0	0	0	0	0	3	0	0	0	0	0
87	G4-PR5	2	1	0	2	2	0	3	0	3	3	2	1	0
Aspect	**Marketing Communications**													
88	G4-PR6	0	0	0	0	0	0	0	3	0	3	0	0	0
89	G4-PR7	0	0	0	1	0	0	0	3	3	0	0	0	0
Aspect	**Customer Privacy**													
90	G4-PR8	0		0	1	0	3	1	3	3	3	2	1	0
			0											
Aspect	**Compliance**													
91	G4-PR9	0	0	0	1	0	0	0	3	3	3	0	0	0
	SUB-TOTAL PR	**2**	**1**	**0**	**5**	**3**	**3**	**5**	**18**	**12**	**12**	**5**	**2**	**0**
CATEGORY	**FSSD**													
92	FS1	1	1	1	2	2	1	2	2	1	2	2	0	2
93	FS2	1	1	0	2	1	0	2	1	2	2	2	2	2
94	FS3	1	1	1	2	0	0	2	0	1	2	1	2	0
95	FS4	2	2	2	2	0	2	2	2	2	2	2	1	2
96	FS5	2	1	2	1	2	1	2	2	2	2	2	2	2

97	FS6	0	0	0	0	0	0	1	3	0	3	2	0	0
98	FS7	2	2	2	1	1	0	1	3	3	3	2	1	0
99	FS8	2	2	2	1	1	1	1	3	0	3	2	1	1
100	**Assurance is mandated in Europe (see pg 46 of LSE 2016) FS9**	1	0	2	1	2	2	2	0	1	2	1	2	2
101	FS10	1	0	3	0	0	0	1	1	1	2	1	0	0
102	FS11	1	0	1	1	0	0	1	1	1	1	1	0	1
103	FS12	1	2	0	0	0	0	1	0	0	1	1	0	0
104	FS13	2	1	0	1	0	0	2	0	3	1	0	0	0
105	FS14	0	1	2	1	1	0	2	3	3	3	1	0	0
106	FS15	1	1	1	2	1	1	1	2	1	2	2	0	2
107	FS16	0	2	0	2	0	0	0	2	0	1	0	2	0
	SUB-TOTAL FSSS	**18**	**17**	**19**	**19**	**11**	**8**	**23**	**25**	**21**	**32**	**22**	**13**	**14**

	DEPENDENT VARIABLES	**2017**	**2017**	**2017**	**2017**	**2017**	**2017**	**2017**	**2017**	**2017**	**2017**	**2017**	**2017**
	GRI-G4	**JAP**	**JAP**	**JAP**	**JAP**	**UK**	**UK**	**UK**	**UK**	**UK**	**UK**	**UK**	**UK**
	SSD	**MUFG**	**RESO**	**SMFG**	**SMIT**	**BARC**	**SANT**	**HSBC**	**LEG&**	**LLOY**	**LSE**	**JUPI**	**ABDP**
		SCORE	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**
	OBSERVATIONS	27	28	29	30	31	32	33	34	35	36	37	38
CATEGORY	**ECONOMIC**												
Aspect	**Economic Performance**												
1	G4-EC1	2	1	1	3	3	2	1	1	2	1	1	1
2	G4-EC2	1	2	1	1	3	1	2	1	2	2	2	1
3	G4-EC3	1	2	0	1	1	1	1	1	1	1	2	2
4	G4-EC4	0	0	0	1	0	0	0	0	0	0	0	0
Aspect	**Market Presence**												
5	G4-EC5	1	1	0	1	0	0	1	1	1	2	1	1
6	G4-EC6	1	0	0	1	0	0	1	0	1	1	0	1
Aspect	**Indirect Economic Impacts**												

7	G4-EC7	1	0	2	3	2	2	1	1	1	1	2	2
8	G4-EC8	0	0	0	1	3	0	0	0	1	0	0	0
Aspect	**Procurement Practices**												
9	G4-EC9	0	0	0	1	3	0	1	1	1	2	0	1
	SUB-TOTAL ECONOMIC	**7**	**6**	**4**	**13**	**15**	**6**	**8**	**6**	**10**	**10**	**8**	**9**
CATEGORY	**ENVIRONMENTAL**												
Aspect	**Materials**												
10	G4-EN1	1	0	1	2	3	2	1	1	2	0	0	1
11	G4-EN2	0	0		2	0	2	2	0	1	3		0
12	G4-EN3	1	1	2	3	3	2	1	1	1	2	1	2
13	G4-EN4	1	1	2	0	0	2	1	0	1	2	1	2
14	G4-EN5	1	0	0	3	3	2	0	0	0	0	0	0
15	G4-EN6	1	0	1	3	3	2	2	0	1	2	0	0
16	G4-EN7	0	0	0	3	0	0	0	0	0	0	0	0
Aspect	**Water**												
17	G4-EN8	0	0	2	1	3	2	1	1	2	3	1	0
18	G4-EN9	0	0	0	1	0	0	0	0	0	1	0	0
19	G4-EN10	0	0	0	1	0	2	1	0	0	3	0	0
	Biodiversity												
20	EN11	0	0	0	0	0	1	0	0	0	0	0	0
21	EN12	0	0	0	0	0	0	0	0	0	0	0	0
22	G4-EN13	1	1	1	1	0	0	0	0	0	0	0	0
23	G4-EN14	0	0	0	1	0	0	0	0	0	0	0	0
Aspect	**Emissions**												
24	G4-EN15	1	1	2	3	3	2	2	1	2	3	2	2
25	G4-EN16	1	1	2	3	3	2	2	1	2	3	2	2
26	G4-EN17	1	1	1	3	3	2	2	1	2	0	2	2
27	G4-EN18	0	0	0	3	3	2	0	0	0	0	2	0

28	G4-EN19	0	1	1	3	3	2	2	1	2	0	0	0
29	G4-EN20	0	0	0	1	0	0	0	0	0	0	0	0
30	G4-EN21	0	0	0	1	0	0	0	0	0	3	0	0
Aspect	**Effluents (Sewage) and Waste**												
31	G4-EN22	0	0	1	1	0	0	1	0	1	3	0	0
32	G4-EN23	0	0	1	3	3	2	2	1	2	3	1	1
33	G4-EN24	0	0	0	1	0	2	0	0	0	0	0	0
34	G4-EN25	0	0	0	3	0	0	0	0	0	1	0	0
35	G4-EN26	0	0	0	1	0	0	0	0	0	0	0	0
36	G4-EN27	0	0	0	3	3	0	0	0	0	0	0	0
37	G4-EN28	0	0	0	1	0	0	0	0	0	1	0	1
Aspect	**Compliance**												
38	G4-EN29	0	0	0	1	3	0	1	0	0	3	0	0
Aspect	**Transport**												
39	G4-EN30	1	1	2	3	1	2	2	0	2	0	1	1
Aspect	**Overall**												
40	G4-EN31	2	0	1	1	2	1	2	1	1	0	2	0
Aspect	**Supplier Environmental Assessment**												
41	G4-EN32	0	0	0	1	3	1	0	1	1	1	1	2
42	G4-EN33	0	0	0	1	0	1	1	1	1	22	0	0
43	G4-EN34	0	0	0	1	0	0	2	0	1	0	0	0
	SUB-TOTAL ENVIRONMENTAL	**12**	**8**	**20**	**59**	**45**	**36**	**28**	**11**	**25**	**59**	**16**	**16**
CATEGORY	**SOCIAL**												
SUB-CAT	**LABOUR PRACTICES AND DECENT WORK**												
Aspect	**Employment**												

44	G4-LA1	1	1	0	3	3	2	2	1	0	2	0	2
45	G4-LA2	0	0	0	1	3	2	0	0	0	0	0	1
46	G4-LA3	1	0	2	3	0	2	0	0	2	0	2	2
Aspect	**Labour/Management Relations**												
47	G4-LA4	0	0	0	1	0	0	0	0	0	0	0	0
Aspect	**Occupational Health and Safety**												
48	G4-LA5	0	0	0	1	0	0	0	0	1	3	0	2
49	G4-LA6	0	0	0	3	0	2	0	1	2	3	0	2
50	G4-LA7	0	0	0	1	0	0	0	0	0	0	0	0
51	G4-LA8	0	0	1	1	0	0	0	0	1	1	0	1
52	G4-LA9	1	0	1	3	3	2	2	1	1	3	0	2
53	G4-LA10	1	0	2	3	2	2	2	1	1	1	1	2
54	G4-LA11	1	0	0	3	1	2	2	1	1	0	0	0
Aspect	**Diversity and Equal Opportunity**												
55	G4-LA12	1	1	0	3	3	2	2	1	2	1	2	2
Aspect	**Equal Remuneration for Women and Men**												
56	G4-LA13	1	1	0	1	3	1	0	1	1	1	1	2
Aspect	**Supplier Assessment for Labour Practices**												
57	G4-LA14	0	0	0	1	1	1	1	1	2	1	1	2
58	G4-LA15	0	0	0	1	0	1	0	0	1	0	0	1
Aspect	**Labour Practices Grievance Mechanisms**												
59	G4-LA16	0	0	0	3	0	0	2	0	1	0	0	0
	SUB-TOTAL LP&DW	**7**	**3**	**6**	**32**	**19**	**19**	**13**	**8**	**16**	**16**	**7**	**21**

CATEGORY	HUMAN RIGHTS												
Aspect	**Investment**												
60	G4-HR1	2	0	3	1	3	1	2	0	1	1	1	2
61	G4-HR2	1	1	2	3	3	0	1	1	1	0	1	2
Aspect	**Non-discrimination**												
62	G4-HR3	1	0	0	1	0	0	0	0	0	0	0	0
Aspect	**Freedom of Association and Collective Bargaining**												
63	G4-HR4	0	0	1	1	1	0	0	0	2	0	0	0
Aspect	**Child Labour**												
64	G4-HR5	0	0	1	0	1	0	2	1	2	1	1	1
Aspect	**Forced or Compulsory Labour**												
65	G4-HR6	0	0	1	0	1	0	2	1	2	1	1	1
Aspect	**Security Practices**												
66	G4-HR7	1	0	0	3	1	1	1	0	1	1	2	2
Aspect	**Indigenous Rights**												
67	G4-HR8	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Assessment**												
68	G4-HR9	0	1	1	3	0	0	0	1	0	0	0	0
Aspect	**Supplier Human Rights Assessment**												
69	G4-HR10	0	0	0	1	3	1	1	1	1	1	1	2
70	G4-HR11	0	0	0	1	0	1	1	0	1	0	0	1
71	G4-HR12	0	0	0	3	0	0	2	0	1	0	0	0
	SUB-TOTAL HR	**5**	**2**	**9**	**17**	**13**	**4**	**12**	**5**	**12**	**5**	**7**	**11**

CATEGORY	**SOCIETY**												
Aspect	**Local Communities**												
72	G4-SO1	1	1	1	1	2	1	0	1	1	2	1	1
73	G4-SO2	0	0	0	1	0	0	0	0	0	0	0	0
Aspect	**Anti-Corruption**												
74	G4-SO3	1	0	0	1	3	2	1	0	1	0	0	2
75	G4-SO4	0	0	2	3	3	2	1	0	1	2	2	2
76	G4-SO5	0	0	0	3	3	0	0	0	0	0	0	2
Aspect	**Public Policy**												
77	G4-SO6	0	0	0	1	3	0	1	0	0	2	2	0
Aspect	**Anti-Competitive Behaviour**												
78	G4-SO7	0	0	0	1	1	1	0	0	1	0	0	0
Aspect	**Compliance**												
79	G4-SO8	0	0	0	1	3	0	0	0	0	0	0	0
Aspect	**Supplier Assessment for Impacts on Society**												
80	G4-SO9	0	0	0	1	0	1	0	1	1	1	1	2
81	G4-SO10	0	0	0	3	0	1	0	0	0	0	0	1
Aspect	**Grievance Mechanisms for Impacts on Society**												
82	G4-SO11	1	0	0	3	0	0	2	0	1	0	0	0
	SUB-TOTAL SOCIETY	**3**	**1**	**3**	**19**	**18**	**8**	**5**	**2**	**6**	**7**	**6**	**10**
CATEGORY	**PRODUCT RESPONSIBILITY**												
Aspect	**Customer Health and Safety**												
83	G4-PR1	0	0	0	0	0	0	0	0	0	1	0	0
84	G4-PR2	0	0	0	0	0	0	0	0	0	0	0	0

Aspect	**Product and Services Labelling**												
85	G4-PR3	0	0	0	0	0	0	0	0	0	0	0	0
86	G4-PR4	0	0	0	0	0	0	0	0	0	0	0	0
87	G4-PR5	1	0	1	1	3	1	2	1	1	1	2	2
Aspect	**Marketing Communications**												
88	G4-PR6	0	0	0	0	0	0	0	0	0	0	0	0
89	G4-PR7	0	0	0	1	0	0	0	0	0	0	0	0
Aspect	**Customer Privacy**												
90	G4-PR8	1	0	0	1	3	2	1	0	2	0	0	2
Aspect	**Compliance**												
91	G4-PR9	0	0	0	1	3	0	0	0	0	0	0	0
	SUB-TOTAL PR	**2**	**0**	**1**	**4**	**9**	**3**	**3**	**1**	**3**	**2**	**2**	**4**
CATEGORY	**FSSD**												
92	FS1	2	1	2	2	1	1	1	1	2	1	1	2
93	FS2	1	0	2	2	2	1	2	1	2	2	1	2
94	FS3	2	0	2	2	1	1	2	1	2	1	1	2
95	FS4	2	2	2	2	2	2	2	1	2	2	1	2
96	FS5	2	1		2	2	2	1	2	1	1	2	1
97	FS6	0	0	2	0	0	0	1	0	0	0	0	0
98	FS7	1	1	2	2	3	2	1	2	2	2	1	2
99	FS8	1	1	2	2	3	2	1	1	2	2	0	1
100	**Assurance is mandated in Europe (see pg 46 of LSE 2016) FS9**	1	1	1	2	2	2	1	0	0	1	2	2
101	FS10	1	0	1	2	0	0	1	0	1	1	0	0
102	FS11	1	0	2	1	1	0	1	0	1	0	0	0
103	FS12	0	0	0	1	0	0	0	0	0	0	1	0
104	FS13	1	0	0	1	3	1	1	0	1	0	0	1

105	FS14	0	0	0	0	3	1	0	2	2	0	1	2
106	FS15	2	0	2	1	1	2	1	1	2	1	1	2
107	FS16	1	2	2	1	2	2	0	2	2	0	0	2
	SUB-TOTAL FSSS	**18**	**9**	**22**	**23**	**26**	**19**	**16**	**14**	**22**	**14**	**12**	**21**

	DEPENDENT VARIABLES	**2017**	**2017**	**2017**	**2017**	**2017**	**2017**	**2017**	**2017**	**2017**	**2017**	**2017**	**2017**	**2017**
	GRI-G4	**USA**	**USA**	**USA**	**USA**	**USA**	**USA**	**USA**	**USA**	**USA**	**CAN**	**CAN**	**CAN**	**CAN**
	SSD	**NASD**	**GOLD**	ALLS	BNY	CAPO	KEYC	PNC	VISA	BMO	CIBC	LAUR	TD	RBC
		SCORE	**SCORE**	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE		SCORE	SCORE
	OBSERVATIONS	39	40	41	42	43	44	45	46	47	48	49	50	51
CATEGORY	**ECONOMIC**													
Aspect	**Economic Performance**													
1	G4-EC1	1	1	3	3	1	1	3	3	3	2	1	3	2
2	G4-EC2	1	2	1	3	1	0	3	2	1	1	1	3	2
3	G4-EC3	1	1	2	2	2	2	3	3	3	2	2	3	1
4	G4-EC4	0	0	0	3	0	0	0	0	0	0	0	0	0
Aspect	**Market Presence**													
5	G4-EC5	1	1	0	0	0	1	0	0	0	0	1	0	0
6	G4-EC6	0	2	0	0	0	2	1	0	0	0	0	2	2
Aspect	**Indirect Economic Impacts**													
7	G4-EC7	1	2	2	3	0	2	3	0	3	2	2	3	2
8	G4-EC8	0	0	3	3	0	1	0	3	3	0	0	3	0
Aspect	**Procurement Practices**													
9	G4-EC9	0	0	1	1	1	1	1	1	1	1	0	1	1
	SUB-TOTAL ECONOMIC	**5**	**9**	**12**	**18**	**5**	**10**	**14**	**12**	**14**	**8**	**7**	**18**	**10**

CATEGORY	**ENVIRONMENTAL**													
Aspect	**Materials**													
10	G4-EN1	0	2	0	1	1	0	0	2	0	0	1	0	2
11	G4-EN2	0	2	1	1	2	1	0	0	0	2	1	0	1
12	G4-EN3	1	2	3	3	2	2	2	3	3	0	1	2	2
13	G4-EN4	1	2	0	3	0	2	2	3	0	0	1	0	2
14	G4-EN5	1	0	0	3	0	0	0	3	3	0	0	0	2
15	G4-EN6	0	0	3	3	1	2	2	3	3	0	0	3	2
16	G4-EN7	0	0	0	0	1	2	2	3	0	0	0	2	0
Aspect	**Water**													
17	G4-EN8	1	2	1	3	1	0	2	3	3	0	0	1	2
18	G4-EN9	0	2	0	3	0	0	0	0	0	0	0	0	0
19	G4-EN10	0	0	0	3	1	0	2	0	0	0	0	0	0
	Biodiversity													
20	EN11	0	0	0	0	0	0	0	0	0	0	0	0	0
21	EN12	0	0	0	0	0	0	0	0	0	0	0	0	0
22	G4-EN13	1	0	0	0	1	0	0	0	0	0	0	1	1
23	G4-EN14	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Emissions**													
24	G4-EN15	3	2	3	3	2	2	2	3	3	1	1	2	2
25	G4-EN16	3	2	3	3	2	2	2	3	3	1	1	2	2
26	G4-EN17	1	2	3	3	2	2	2	3	3	1	1	0	0
27	G4-EN18	3	2	3	3	2	0	0	3	3	1	0	2	2
28	G4-EN19	0	2	3	3	2	2	2	3	3	1	0	2	2
29	G4-EN20	0	0	0	0	0	0	0	0	3	0	0	0	0
30	G4-EN21	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Effluents (Sewage) and Waste**													
31	G4-EN22	1	1	1	0	0	0	0	0	0	0	0	0	0
32	G4-EN23	1	2	2	3	2	2	2	3	0	0	1	1	2
33	G4-EN24	0	0	0	0	0	0	0	0	0	0	1	0	0

34	G4-EN25	0	0	0	0	0	0	0	0	0	0	0	0	0
35	G4-EN26	1	0	0	0	0	0	0	0	0	0	0	0	0
36	G4-EN27	0	0	0	0	0	0	0	3	0	0	0	0	0
37	G4-EN28	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Compliance**													
38	G4-EN29	0	0	0	3	0	0	0	0	3	0	0	0	0
Aspect	**Transport**													
39	G4-EN30	1	2	0	3	0	0	1	1	0	0	1	0	0
Aspect	**Overall**													
40	G4-EN31	0	2	1	1	1	1	0	1	0	0	1	1	1
Aspect	**Supplier Environmental Assessment**													
41	G4-EN32	0	1	0	1	1	1	1	1	1	1	1	1	1
42	G4-EN33	0	1	0	1	1	1	0	0	0	1	0	0	0
43	G4-EN34	0	0	0	0	0	0	0	0	0	0	1	0	0
	SUB-TOTAL ENVIRONMENTAL	**19**	**31**	**27**	**50**	**25**	**22**	**24**	**44**	**34**	**9**	**13**	**20**	**26**
CATEGORY	**SOCIAL**													
SUB-CAT	**LABOUR PRACTICES AND DECENT WORK**													
Aspect	**Employment**													
44	G4-LA1	2	0	0	3	0	1	0	1	3	2	0	1	0
45	G4-LA2	1	0	0	3	0	0	2	3	1	1	1	0	1
46	G4-LA3	0	0	0	1	2	0	2	1	0	0	1	2	0
Aspect	**Labour/Management Relations**													
47	G4-LA4	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Ocupational Health and Safety**													

48	G4-LA5	0	0	1	0	0	0	0	3	0	1	1	2	0
49	G4-LA6	1	0	0	0	0	0	0	0	3	0	0	2	0
50	G4-LA7	0	0	0	0	0	0	0	0	0	2	0	2	0
51	G4-LA8	0	0	2	0	0	0	0	0	0	0	1	2	0
52	G4-LA9	1	1	1	3	0	1	2	3	3	1	2	2	2
53	G4-LA10	1	1	2	3	2	1	2	2	2	2	2	2	2
54	G4-LA11	1	1	2	3	2	1	2	3	2	2	1	2	1
Aspect	**Diversity and Equal Opportunity**													
55	G4-LA12	2	2	2	3	2	2	2	3	3	2	1	3	2
Aspect	**Equal Remuneration for Women and Men**													
56	G4-LA13	2	1	0	3	0	1	0	3	0	0	1	0	0
Aspect	**Supplier Assessment for Labour Practices**													
57	G4-LA14	0	1	1	1	1	1	1	1	1	1	1	1	1
58	G4-LA15	0	1	0	1	1	1	0	0	0	1	0	0	0
Aspect	**Labour Practices Grievance Mechanisms**													
59	G4-LA16	0	0	0	0	0	0	0	0	0	0	1	0	0
	SUB-TOTAL LP&DW	**11**	**8**	**11**	**24**	**10**	**9**	**13**	**23**	**18**	**15**	**13**	**21**	**9**
CATEGORY	**HUMAN RIGHTS**													
Aspect	**Investment**													
60	G4-HR1	1	2	1	3	0	1	2	1	0	2	0	2	2
61	G4-HR2	1	0	0	3	0	0	0	3	3	0	1	0	0
													1	
Aspect	**Non-discrimination**													
62	G4-HR3	0	0	0	0	0	0	0	0	0	2	0	1	0

Aspect	**Freedom of Association and Collective Bargaining**													
63	G4-HR4	2	0	0	0	0	0	0	0	0	0	1	0	0
Aspect	**Child Labour**													
64	G4-HR5	1	0	1	1	0	0	0	0	1	0	0	0	0
Aspect	**Forced or Compulsory Labour**													
65	G4-HR6	1	0	0	1	0	0	0	0	0	0	0	0	0
Aspect	**Security Practices**													
66	G4-HR7	1	0	0	0	1	0	1	1	0	0	1	0	2
Aspect	**Indigenous Rights**													
67	G4-HR8	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Assessment**													
68	G4-HR9	0	0	0	3	0	0	0	0	1	1	0	2	0
Aspect	**Supplier Human Rights Assessment**													
69	G4-HR10	0	1	1	1	1	1	1	1	1	1	1	1	1
70	G4-HR11	0	1	0	0	0	1	0	0	0	0	0	0	0
71	G4-HR12	0	0	0	0	0	0	0	0	0	0	1	2	0
	SUB-TOTAL HR	**7**	**4**	**3**	**12**	**2**	**3**	**4**	**6**	**6**	**6**	**5**	**9**	**5**
CATEGORY	**SOCIETY**													
Aspect	**Local Communities**													
72	G4-SO1	0	2	3	3	2	2	3	3	2	2	2	3	2
73	G4-SO2	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Anti-Corruption**													
74	G4-SO3	1	0	0	3	0	0	3	3	1	0	1	0	0

75	G4-SO4	0	0	2	3	0	0	1	3	1	2	1	2	2
76	G4-SO5	0	0	0	3	0	0	0	3	0	0	1	0	0
Aspect	**Public Policy**													
77	G4-SO6	0	0	1	3	0	0	0	3	3	2	0	1	2
Aspect	**Anti-Competitive Behaviour**													
78	G4-SO7	0	0	1	3	0	0	3	3	0	0	0	0	0
Aspect	**Compliance**													
79	G4-SO8	0	0	0	3	0	0	0	0	3	0	0	0	0
Aspect	**Supplier Assessment for Impacts on Society**													
80	G4-SO9	0	1	1	1	1	1	1	1	1	1	1	1	1
81	G4-SO10	0	1	0	1	1	1	0	0	0	1	0	0	0
Aspect	**Grievance Mechanisms for Impacts on Society**													
82	G4-SO11	0	0	0	0	0	0	0	0	0	0	1	0	0
	SUB-TOTAL SOCIETY	**1**	**4**	**8**	**23**	**4**	**4**	**11**	**19**	**11**	**8**	**7**	**7**	**7**
CATEGORY	**PRODUCT RESPONSIBILITY**													
Aspect	**Customer Health and Safety**													
83	G4-PR1	0	0	0	0	0	0	0	0	0	0	0	0	0
84	G4-PR2	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Product and Services Labelling**													
85	G4-PR3	0	0	0	0	0	0	0	0	0	0	0	0	0
86	G4-PR4	0	0	0	0	0	0	0	0	0	0	0	0	0
87	G4-PR5	0	0	2	0	0	1	1	1	3	2	1	2	2
Aspect	**Marketing Communications**													

88	G4-PR6		0	0	0	0	0	0	0	0	0	0	0	0
89	G4-PR7	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Customer Privacy**													
90	G4-PR8	0	0	1	3	1	1	0	3	3	2	1	3	0
Aspect	**Compliance**													
91	G4-PR9	0	0	0	3	0	0	0	0	0	0	0	0	0
	SUB-TOTAL PR	**0**	**0**	**3**	**6**	**1**	**2**	**1**	**4**	**6**	**4**	**2**	**5**	**2**
CATEGORY	**FSSD**													
92	FS1	0	1	2	1	1	1	1	1	3	1	2	3	1
93	FS2	2	2	0	1	0	2	2	2	3	2	1	3	2
94	FS3	0	0	2	2	0	1	2	1	3	2	1	3	2
95	FS4	1	1	2	1	2	2	2	1	3	2	2	2	2
96	FS5	1	2	2	2	1	2	2	2	3	2	2	2	2
97	FS6	0	1	0	3	0	0	0	0	0	2	0	2	0
98	FS7	2	2	1	3	2	2	2	1	1	2	2	3	2
99	FS8	1	2	2	3	2	2	2	1	2	2	2	3	0
100	**Assurance is mandated in Europe (see pg 46 of LSE 2016) FS9**	0	0	1	3	0	0	0	0	3	0	1	2	2
101	FS10	0	1	0	3	0	0	2	0	2	1	0	2	0
102	FS11	0	0	0	3	0	0	0	0	0	1	0	2	0
103	FS12	0	1	0	0	0	0	0	0	0	0	1	1	1
104	FS13	0	1	0	3	1	0	1	2	3	2	1	3	2
105	FS14	0	0	2	3	1	2	3	2	3	2	1	3	2
106	FS15	0	1	1	1	1	2	1	0	3	1	1	0	2
107	FS16	1	2	2	2	2	2	2	2	3	2	1	3	2
	SUB-TOTAL FSSS	**8**	**17**	**17**	**34**	**13**	**18**	**22**	**15**	**35**	**24**	**18**	**37**	**22**

	DEPENDENT VARIABLES	2016	2016	2016	2016	2016	2016	2016	2016	2016	2016	2016	2016	2016
	GRI-G4	FRA	FRA	FRA	FRA	FRA	GER	GER	GER	GER	GER	GER	ITALY	ITALY
	SSD	AGRI	BNP	EURA	SOCI	WEND	AARE	ALLI	COMM	DEUT	HANN	TALA	BANC	AGEN
		SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE
	OBSERVATIONS	52	53	54	55	56	57	58	59	60	61	62	63	64
CATEGORY	ECONOMIC													
Aspect	Economic Performance													
1	G4-EC1	2	2	3	1	1	3	1	3	1	3	3	3	2
2	G4-EC2	1	0	2	1	0	0	2	3	3	3	3	3	3
3	G4-EC3	2	2	2	1	1	3	1	2	2	3	2	3	2
4	G4-EC4	0	0	0	0	0	3	0	0	0	3	0	3	0
Aspect	Market Presence													
5	G4-EC5	0	0	0	1	0	0	0	0	0	3	3	3	0
6	G4-EC6	0	1	0	0	0	0	1	0	1	3	3	3	0
Aspect	Indirect Economic Impacts													
7	G4-EC7	2	2	1	1	1	1	2	3	3	3	3	3	1
8	G4-EC8	1	0	0	0	0	0	0	0	3	3	3	3	2
Aspect	Procurement Practices													
9	G4-EC9	0	0	1	1	1	0	0	0	0	1	3	1	1
	SUB-TOTAL ECONOMIC	8	7	9	6	4	10	7	11	13	25	23	25	11
CATEGORY	ENVIRONMENTAL													
Aspect	Materials													
10	G4-EN1	1	2	2	2	2	3	2	3	2	3	3	3	3
11	G4-EN2	0	2	2	2	1	0	0	3	2	0	3	0	0
12	G4-EN3	1	2	3	2	2	3	2	3	2	3	3	3	3
13	G4-EN4	1	2	2	2	2	0	2	0	2	0	0	3	0
14	G4-EN5	0	0	0	0	0	0	0	0	0	3	3	3	0

15	G4-EN6	0	1	0	2	1	1	2	3	1	3	3	3	3
16	G4-EN7	0	0	0	0	0	0	0	0	0	3	0	0	0
Aspect	**Water**													
17	G4-EN8	1	0	3	2	1	3	2	3	2	3	3	3	2
18	G4-EN9	0	0	1	0	0	0	0	0	0	0	0	3	0
19	G4-EN10	0	0	0	0	1	0	0	0	0	3	0	0	0
	Biodiversity													
20	EN11	0	0	0	0	0	0	0	0	0	0	0	0	0
21	EN12	0	0	0	0	0	0	0	0	0	0	0	0	0
22	G4-EN13	0	1	0	0	0	0	0	0	0	0	0	0	0
23	G4-EN14	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Emissions**													
24	G4-EN15	1	2	3	2	2	3	2	3	2	3	3	3	3
25	G4-EN16	1	2	3	2	2	3	2	3	2	3	3	3	3
26	G4-EN17	1	2	3	2	2	3	2	3	2	3	3	3	3
27	G4-EN18	0	0	0	0	0	0	0	3	0	3	0	3	0
28	G4-EN19	0	2	1	2	2	1	2	3	2	3	0	3	3
29	G4-EN20	0	0	0	0	0	0	0	0	0	0	0	0	0
30	G4-EN21	0	0	3	0	2	0	0	0	0	0	0	0	0
Aspect	**Effluents (Sewage) and Waste**													
31	G4-EN22	1	0	1	0	2	0	0	0	0	3	3	3	1
32	G4-EN23	1	1	3	2	2	3	2	3	2	3	3	3	2
33	G4-EN24	0	0	0	0	0	0	0	0	0	0	0	0	0
34	G4-EN25	0	0	0	0	0	0	0	0	0	0	0	3	0
35	G4-EN26	0	0	2	1	2	0	0	0	0	0	0	0	0
36	G4-EN27	0	0	0	0	0	0	0	3	0	3	3	0	0
37	G4-EN28	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Compliance**													
38	G4-EN29	0	0	3	0	0	3	0	3	0	3	3	3	0

Aspect	**Transport**													
39	G4-EN30	1	2	3	2	2	3	2	3	2	3	3	3	2
Aspect	**Overall**													
40	G4-EN31	0	1	3	2	2	1	1	3	2	3	3	1	2
Aspect	**Supplier Environmental Assessment**													
41	G4-EN32	0	1	1	1	1	1	2	3	1	3	3	0	1
42	G4-EN33	0	0	1	0	1	3	1	0	0	3	3	0	0
43	G4-EN34	1	0	0	1	0	3	0	0	0	3	0	0	0
	SUB-TOTAL ENVIRONMENTAL	**11**	**23**	**43**	**29**	**32**	**37**	**26**	**48**	**26**	**63**	**51**	**52**	**31**
CATEGORY	**SOCIAL**													
SUB-CAT	**LABOUR PRACTICES AND DECENT WORK**													
Aspect	**Employment**													
44	G4-LA1	2	2	3	2	2	3	2	3	1	3	3	3	3
45	G4-LA2	1	0	1	0	1	3	1	0	1	3	3	3	3
46	G4-LA3	2	0	2	2	2	1	0	2	0	3	3	3	2
Aspect	**Labour/Management Relations**													
47	G4-LA4	0	0	0	0	0	3	0	0	0	3	0	3	3
Aspect	**Ocupational Health and Safety**													
48	G4-LA5	2	0	1	0	0	0	0	3	0	3	0	3	0
49	G4-LA6	2	0	3	2	2	3	2	3	0	3	3	3	2
50	G4-LA7	2	0	1	2	0	3	2	0	0	3	3	3	0
51	G4-LA8	2	0	1	2	2	0	0	3	0	3	0	3	0
52	G4-LA9	2	2	3	2	2	3	1	3	2	3	3	3	3
53	G4-LA10	2	2	2	2	2	3	2	3	2	3	3	3	3
54	G4-LA11	1	2	2	1	2	3	2	3	1	3	3	3	3

Aspect	**Diversity and Equal Opportunity**													
55	G4-LA12	2	2	3	2	2	3	1	3	1	3	3	3	3
Aspect	**Equal Remuneration for Women and Men**													
56	G4-LA13	1	0	0	1	0	3	1	3	0	3	3	3	3
Aspect	**Supplier Assessment for Labour Practices**													
57	G4-LA14	1	1	1	1	1	1	2	3	1	3	3	0	1
58	G4-LA15	1	0	1	0	1	3	1	0	0	3	3	0	0
Aspect	**Labour Practices Grievance Mechanisms**													
59	G4-LA16	1	0	0	1	0	0	0	0	0	3	3	0	0
	SUB-TOTAL LP&DW	**24**	**11**	**24**	**20**	**19**	**35**	**17**	**32**	**9**	**48**	**39**	**39**	**29**
CATEGORY	**HUMAN RIGHTS**													
Aspect	**Investment**													
60	G4-HR1	2	1	3	1	1	1	2	3	3	1	0	1	2
61	G4-HR2	1	1	1	2	0	0	1	2	0	3	0	0	1
Aspect	**Non-discrimination**													
62	G4-HR3	0	0	1	1	1	3	0	3	0	3	3	3	0
Aspect	**Freedom of Association and Collective Bargaining**													
63	G4-HR4	0	0	1	1	2	0	2	3	0	3	3	3	2
Aspect	**Child Labour**													
64	G4-HR5	0	0	1	1	2	0	0	3	2	3	3	0	1
Aspect	**Forced or Compulsory Labour**													

65	G4-HR6	0	0	1	1	2	1	0	3	2	3	3	0	1
Aspect	**Security Practices**													
66	G4-HR7	0	1	1	1	0	1	1	1	2	3	1	1	1
Aspect	**Indigenous Rights**													
67	G4-HR8	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Assessment**													
68	G4-HR9	2	0	0	1	0	0	0	0	0	0	0	0	0
Aspect	**Supplier Human Rights Assessment**													
69	G4-HR10	1	1	1	1	1	1	2	3	1	3	3	0	1
70	G4-HR11	1	0	1	0	1	3	1	3		0	3	0	0
71	G4-HR12	1	0	0	1	0	0	0	0	1	3	3	0	0
	SUB-TOTAL HR	**8**	**4**	**11**	**11**	**10**	**10**	**9**	**24**	**11**	**25**	**22**	**8**	**9**
CATEGORY	**SOCIETY**													
Aspect	**Local Communities**													
72	G4-SO1	0	1	1	1	2	0	2	3	3	3	1	3	2
73	G4-SO2	0	1	0	0	0	0	0	0	2	0	0	3	0
Aspect	**Anti-Corruption**													
74	G4-SO3	1	2	0	1	1	3	2	3	3	0	3	3	3
75	G4-SO4	1	2	3	2	2	3	2	3	3	3	3	3	3
76	G4-SO5	0	0	1	0	0	3	2	3	0	0	3	3	3
Aspect	**Public Policy**													
77	G4-SO6	0	0	0	0	1	0	1	3	0	3	0	3	1
Aspect	**Anti-Competitive Behaviour**													
78	G4-SO7	0	0	1	1	0	3	0	1	1	3	3	3	0

Aspect	**Compliance**													
79	G4-SO8	1	0	1	1	0	3	0	3	0	3	3	3	0
Aspect	**Supplier Assessment for Impacts on Society**													
80	G4-SO9	1	1	1	1	1	1	2	1	1	3	3	0	1
81	G4-SO10	1	0	1	0	1	3	1	0	0	0	3	0	0
Aspect	**Grievance Mechanisms for Impacts on Society**													
82	G4-SO11	1	0	0	1	0	3	0	0	0	3	3	0	0
	SUB-TOTAL SOCIETY	**6**	**7**	**9**	**8**	**8**	**22**	**12**	**20**	**13**	**21**	**25**	**24**	**13**
CATEGORY	**PRODUCT RESPONSIBILITY**													
Aspect	**Customer Health and Safety**													
83	G4-PR1	0	0	0	0	0	0	0	0	0	0	0	3	0
84	G4-PR2	0	0	0	0	0	0	0	0	0	0	0	3	0
Aspect	**Product and Services Labelling**													
85	G4-PR3	0	0	0	0	0	0	0	3	0	3	3	3	0
86	G4-PR4	0	0	1	0	0	0	0	0	0	3	3	3	0
87	G4-PR5	1	1	0	2	1	3	2	3	3	3	3	3	3
Aspect	**Marketing Communications**													
88	G4-PR6	0	0	0	0	0	0	0	0	3	0	3	3	0
89	G4-PR7	0	0	1	0	0	0	0	0	0	3	3	3	0
Aspect	**Customer Privacy**													
90	G4-PR8	1	1	0	1	0	3	1	3	3	3	3	3	3

Aspect	**Compliance**													
91	G4-PR9	1	0	1	0	0	3	0	3	0	3	0	3	0
	SUB-TOTAL PR	**3**	**2**	**3**	**3**	**1**	**9**	**3**	**12**	**9**	**18**	**18**	**27**	**6**
CATEGORY	**FSSD**													
92	FS1	1	2	1	1	2	1	1	1	1	1	1	1	1
93	FS2	2	2	2	2	0	0	2	2	1	1	0	1	2
94	FS3	2	1	1	2	1	1	2	1	3	0	0	1	2
95	FS4	1	2	2	2	2	2	2	2	3	2	2	2	2
96	FS5	2	2	2	2	2	2	2	2	2	2	2	1	2
97	FS6	0	0	2	1	0	0	1	3	1	3	3	3	0
98	FS7	1	2	2	1	1	0	1	3	3	3	3	3	3
99	FS8	1	2	2	0	1	0	1	3	2	3	3	3	3
100	**Assurance is mandated in Europe (see pg 46 of LSE 2016) FS9**	1	1	1	2	1	1	1	0	1	1	0	1	0
101	FS10	1	0	3	1	1	0	2	1	1	0	3	3	3
102	FS11	1	1	0	1	0	0	1	3	3	3	3	3	3
103	FS12	1	1	1	1	0	0	1	0	2	1	0	0	3
104	FS13	0	1	1	1	0	0	1	3	1	3	3	3	0
105	FS14	2	2	1		0	0	2	3	0	3	0	3	3
106	FS15	1	1	1	1	2	1	1	1	1	1	1	1	1
107	FS16	2	2	0	2	0	0	2	2	1	0	2	0	2
	SUB-TOTAL FSSS	**19**	**22**	**22**	**20**	**13**	**8**	**23**	**30**	**26**	**27**	**26**	**29**	**30**

	DEPENDENT VARIABLES	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**
	GRI-G4	**ITALY**	**ITALY**	**ITALY**	**ITALY**	**JAP**	**JAP**	**JAP**	**JAP**	**JAP**	**JAP**	**JAP**	**JAP**	**JAP**	**JAP**
	SSD	**INTE**	**MEDI**	**UNCR**	**UNIP**	**DA-IC**	**DAIW**	**MUZU**	**MSAD**	**MUFG**	**RESO**	**SMFG**	**SMIT**	**SOMP**	**T&DH**
		SCORE	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**
	OBSERVATIONS	65	66	67	68	69	70	71	72	73	74	75	76	77	78
CATEGORY	**ECONOMIC**														

Aspect	**Economic Performance**														
1	G4-EC1	3	3	3	2	3	3	2	1	2	1	1	3	2	3
2	G4-EC2	3	1	3	2	1	3	1	1	1	1	1	1	1	1
3	G4-EC3	3	1	3	1	2	3	1	1	1	1	0	1	1	1
4	G4-EC4	3	0	3	0	0	3	0	0	0	0	0	1	0	0
Aspect	**Market Presence**														
5	G4-EC5	3	2	1	1	0	3	0	0	0	0	0	1	0	0
6	G4-EC6	3	0	1	0	1	3	0	0	2	0	0	1	0	0
Aspect	**Indirect Economic Impacts**														
7	G4-EC7	3	1	2	1	0	3	1	1	2	0	2	3	1	1
8	G4-EC8	3	3	0	0	0	3	0	0	0	0	0	1	0	0
Aspect	**Procurement Practices**														
9	G4-EC9	0	3	0	2	0	3	0	0	0	0	0	1	0	0
	SUB-TOTAL ECONOMIC	**24**	**14**	**16**	**9**	**7**	**27**	**5**	**4**	**8**	**3**	**4**	**13**	**5**	**6**
CATEGORY	**ENVIRONMENTAL**														
Aspect	**Materials**														
10	G4-EN1	3	3	3	1	3	3	2	2	0	1	1	2	2	3
11	G4-EN2	3	0	0	0	0	3	1	1	0	0	0	2	1	1
12	G4-EN3	3	3	3	1	3	3	0	1	0	1	2	3	2	3
13	G4-EN4	3	0	0	1	0	3	0	1	0	1	2	0	2	0
14	G4-EN5	3	0	3	0	3	3	0	0	0	0	0	3	0	3
15	G4-EN6	3	3	3	1	0	3	1	2	0	0	1	3	0	1
16	G4-EN7	3	0	3	0	0	3	0	0	0	0	0	3	0	0
Aspect	**Water**														
17	G4-EN8	3	1	3	1	3	3	0	2	0	0	2	1	2	3
18	G4-EN9	0	0	0	0	0	3	0	0	0	0	0	1	0	0
19	G4-EN10	0	0	0	0	0	3	0	0	0	0	0	1	0	3

	Biodiversity														
20	EN11	0	0	0	0	0	3	0	1	0	0	0	0	1	0
21	EN12	0	0	0	0	0	3	0	0	0	0	0	0	0	0
22	G4-EN13	0	0	0	0	0	3	0	1	0	1	1	1	1	3
23	G4-EN14	0	0	0	0	0	3	0	0	0	0	0	1	0	0
Aspect	**Emissions**														
24	G4-EN15	3	3	3	2	3	3	1	2	0	1	2	3	2	3
25	G4-EN16	3	3	3	2	3	3	1	2	0	1	2	3	2	3
26	G4-EN17	3	0	3	1	0	3	1	2	0	1	1	3	2	3
27	G4-EN18	3	0	0	0	0	3	0	0	0	0	0	3	0	0
28	G4-EN19	3	0	3	2	0	3	1	2	0	0	1	3	2	0
29	G4-EN20	3	0	3	0	0	3	0	0	0	0	0	1	0	0
30	G4-EN21	3	0	0	0	0	3	0	0	0	0	0	1	0	0
Aspect	**Effluents (Sewage) and Waste**														
31	G4-EN22	0	0	0	0	0	3	0	0	0	0	1	1	0	0
32	G4-EN23	3	1	3	0	3	3	0	1	0	0	1	3	1	1
33	G4-EN24	0	0	0	0	0	3	0	0	0	0	0	1	0	0
34	G4-EN25	0	0	0	0	0	3	0	0	0	0	0	3	0	0
35	G4-EN26	0	0	0	0	0	3	0	0	0	0	0	1	0	0
36	G4-EN27	3	0	3	0	0	3	0	0	0	0	0	3	0	0
37	G4-EN28	0	0	0	0	0	3	0	0	0	0	0	1	0	0
Aspect	**Compliance**														
38	G4-EN29	3	0	3	0	3	3	0	0	0	0	0	1	0	3
Aspect	**Transport**														
39	G4-EN30	3	3	3	1	3	3	0	2	0	0	2	3	2	2
Aspect	**Overall**														
40	G4-EN31	3	0	1	0	3	3	1	1	2	1	1	1	1	1
Aspect	**Supplier Environmental Assessment**														

41	G4-EN32	0	3	3	1	0	3	0	1	0	0	0	1	1	0
42	G4-EN33	0	0	0	0	0	3	0	1	0	0	0	1	0	0
43	G4-EN34	3	0	0	1	0	3	0	1	0	0	0	1	0	0
	SUB-TOTAL ENVIRONMENTAL	**63**	**23**	**49**	**15**	**30**	**102**	**9**	**26**	**2**	**8**	**20**	**59**	**24**	**36**
CATEGORY	**SOCIAL**														
SUB-CAT	**LABOUR PRACTICES AND DECENT WORK**														
Aspect	**Employment**														
44	G4-LA1	3	3	3	2	3	3	0	2	1	0	0	3	2	3
45	G4-LA2	3	3	3	0		3	0	0	0	0	0	1	0	0
46	G4-LA3	3	0	1	0	3	3	1	2	1	0	2	3	2	3
Aspect	**Labour/Management Relations**														
47	G4-LA4	3	0	3	0	0	3	0	0	0	0	0	1	0	0
Aspect	**Ocupational Health and Safety**														
48	G4-LA5	3	0	3	0	0	3	0	1	0	0	0	1	0	0
49	G4-LA6	3	3	3	1	0	3	0	2	0	0	0	3	0	0
50	G4-LA7	0	0	0	0	0	3	0	1	0	0	0	1	0	0
51	G4-LA8	3	0	0	1	0	3	0	1	0	0	1	1	0	3
52	G4-LA9	3	3	3	2	2	3	0	0	0	0	1	3	0	0
53	G4-LA10	3	2	3	2	3	3	0	2	2	1	2	3	2	3
54	G4-LA11	3	2	3	1	0	3	1	1	2	0	0	3	0	0
Aspect	**Diversity and Equal Opportunity**														
55	G4-LA12	3	3	3	2	3	3	1	1	1	1	0	3	2	3
Aspect	**Equal Remuneration for Women and Men**														
56	G4-LA13	3	2	3	1	1	3	0	0	0	0	0	1	0	0

Aspect	**Supplier Assessment for Labour Practices**														
57	G4-LA14	0	0	1	1	0	3	0	0	0	0	0	1	1	0
58	G4-LA15	0	0	0	0	0	3	0	0	0	0	0	1	0	0
Aspect	**Labour Practices Grievance Mechanisms**														
59	G4-LA16	3	0	3	1	0	3	0	1	0	0	0	3	0	0
	SUB-TOTAL LP&DW	**39**	**21**	**35**	**14**	**15**	**48**	**3**	**14**	**7**	**2**	**6**	**32**	**9**	**15**
CATEGORY	**HUMAN RIGHTS**														
Aspect	**Investment**														
60	G4-HR1	3	2	3	2	1	3	2	1	2	1	3	1	1	2
61	G4-HR2	3	0	3	2	3	3	0	1	1	0	2	3	1	3
Aspect	**Non-discrimination**														
62	G4-HR3	3	0	3	0	0	3	0	0	0	0	0	1	0	0
Aspect	**Freedom of Association and Collective Bargaining**														
63	G4-HR4	3	0	1	0	0	3	0	1	0	0	1	1	0	0
Aspect	**Child Labour**														
64	G4-HR5	3	0	2	1	0	3	0	1	0	0	1	0	2	1
Aspect	**Forced or Compulsory Labour**														
65	G4-HR6	3	0	2	0	0	3	0	1	0	0	1	0	2	1
Aspect	**Security Practices**														
66	G4-HR7	1	0	2	0	0	3	1	1	1	0	0	3	0	1
Aspect	**Indigenous Rights**														

67	G4-HR8	3	0	0	0	0	3	0	0	0	0	0	0	0	0
Aspect	**Assessment**														
68	G4-HR9	3	0	0	0	1	3	0	0	0	1	1	3	0	0
Aspect	**Supplier Human Rights Assessment**														
69	G4-HR10	0	0	3	1	0	3	0	0	0	0	0	1	0	1
70	G4-HR11	0	0		0	0	3	0	0	0	0	0	1	0	0
71	G4-HR12	3	0	3	1	1	3	0	1	0	0	0	3	0	3
	SUB-TOTAL HR	**28**	**2**	**22**	**7**	**6**	**36**	**3**	**7**	**4**	**2**	**9**	**17**	**6**	**12**
CATEGORY	**SOCIETY**														
Aspect	**Local Communities**														
72	G4-SO1	3	3	3	2	3	3	1	1	1	1	1	1	2	3
73	G4-SO2	3	0	0	0	0	3	0	0	0	0	0	1	0	0
Aspect	**Anti-Corruption**														
74	G4-SO3	3	0	3	2	3	3	1	1	0	0	0	1	0	3
75	G4-SO4	3	3	3	2	0	3	1	0	0	0	2	3	0	3
76	G4-SO5	3	0	3	0	3	3	0	0	0	0	0	3	0	0
Aspect	**Public Policy**														
77	G4-SO6	3	0	3	0	0	3	0	0	0	0	0	1	0	0
Aspect	**Anti-Competitive Behaviour**														
78	G4-SO7	3	0	3	0	3	3	0	0	0	0	0	1	0	0
Aspect	**Compliance**														
79	G4-SO8	3	3	3	0	3	3	0	0	0	0	0	1	0	0
Aspect	**Supplier Assessment for Impacts on Society**														
80	G4-SO9	0	0	1	1	0	3	0	0	0	0	0	1	1	3

81	G4-SO10	0	0	0	0	0	3	0		0	0	0	3	0	0
									0						
Aspect	**Grievance Mechanisms for Impacts on Society**														
82	G4-SO11	3	0	0	1	0	3	0	1	0	0	0	3	0	0
	SUB-TOTAL SOCIETY	**27**	**9**	**22**	**8**	**15**	**33**	**3**	**3**	**1**	**1**	**3**	**19**	**3**	**12**
CATEGORY	**PRODUCT RESPONSIBILITY**														
Aspect	**Customer Health and Safety**														
83	G4-PR1	3	0	0	0	0	3	0	0	0	0	0	0	0	0
84	G4-PR2	3	0	0	0	0	3	0	0	0	0	0	0	0	0
Aspect	**Product and Services Labelling**														
85	G4-PR3	0	0	0	0	0	3	0	0	0	0	0	0	0	0
86	G4-PR4	3	0	3	0	0	3	0	0	0	0	0	0	0	0
87	G4-PR5	3	3	3	1	3	3	1	1	1	1	1	1	1	3
Aspect	**Marketing Communications**														
88	G4-PR6	3	0	0	0	0	3	0	0	0	0	0	0	0	0
89	G4-PR7	3	3	0	0	0	3	0	0	0	0	0	1	0	0
Aspect	**Customer Privacy**														
90	G4-PR8	3	3	3	2	3	3	1	1	1	1	0	1	0	3
Aspect	**Compliance**														
91	G4-PR9	3	3	3	0	0	3	0	0	1	0	0	1	0	0
	SUB-TOTAL PR	**24**	**12**	**12**	**3**	**6**	**27**	**2**	**2**	**3**	**2**	**1**	**4**	**1**	**6**
CATEGORY	**FSSD**														
92	FS1	3	1	1	1	0	3	1	2	1	2	2	2	1	1
93	FS2	3	1	2	2	1	3	2	1	2	1	2	2	1	2

94	FS3	3	1	2	2	1	3	2	1	2	1	2	2	1	2
95	FS4	3	2	2	2	1	3	1	2	2	2	2	2	1	0
96	FS5	3	2	2	1	2	3	2	2	2	1	0	2	2	2
97	FS6	3	0	3	0	0	3	0	0	0	0	2	0	0	0
98	FS7	3	3	3	2	1	3	2	2	1	1	2	2	1	1
99	FS8	3	0	3	0	1	3	0	1	2	1	2	2	1	1
100	**Assurance is mandated in Europe (see pg 46 of LSE 2016) FS9**	3	2	2	1	1	3	2	2	0	0	1	2	2	2
101	FS10	3	0	3	0	3	3	1	0	2	0	1	2	1	3
102	FS11	3	0	3	0	3	3	0	0	0	0	2	1	0	3
103	FS12	3	0	0	0	0	3	0	1	1	0	0	1	0	0
104	FS13	3	3	3	0	0	3	0	1	0	1	0	1	0	0
105	FS14	3	3	3	0	0	3	0	0	2	1	0	0	0	0
106	FS15	3	1	1	2	1	3	1	1	2	1	2	1	1	1
107	FS16	3	1	2	0	2	3	2	0	0	2	2	1	0	0
	SUB-TOTAL FSSS	**48**	**20**	**35**	**13**	**17**	**48**	**16**	**16**	**19**	**14**	**22**	**23**	**12**	**18**

	DEPENDENT VARIABLES	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**
	GRI-G4	**UK**	**UK**	**UK**	**UK**	**UK**	**UK**	**UK**	**USA**	**USA**	**USA**	**USA**	**USA**	**USA**	**USA**
	SSD	**BARC**	**SANT**	**OLDM**	**PROV**	**LSE**	**JUPI**	**ABDP**	**NASD**	**OLDM**	AMEX	BNY	CAPO	CITI	KEYC
		SCORE	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	SCORE	SCORE	SCORE	SCORE	SCORE
	OBSERVATIONS	79	80	81	82	83	84	85	86	87	88	89	90	91	92
CATEGORY	**ECONOMIC**														
Aspect	**Economic Performance**														
1	G4-EC1	3	1	2	2	1	2	3	1	1	3	3	2	3	3
2	G4-EC2	3	1	1	1	1	2	3	1	2	3	3	0	3	3
3	G4-EC3	1	2	1	1	1	2	3	1	1	2	2	2	3	2
4	G4-EC4	0	0	0	0	0	0	3	0	0	0	0	0	0	0
Aspect	**Market Presence**														

5	G4-EC5	0	1	0	1	0	1	1	1	1	0	0	0	3	0
6	G4-EC6	0	2	0	1	1	0	3	0	2	1	0	2	3	0
Aspect	**Indirect Economic Impacts**														
7	G4-EC7	2	2	2	0	1	1	3	1	2	2	3	2	3	2
8	G4-EC8	3	0	0	0	0	0	0	0	0	0	3	1	3	0
Aspect	**Procurement Practices**														
9	G4-EC9	3	0	0	1	0	0	0	0	0	1	1	1	1	1
	SUB-TOTAL ECONOMIC	**15**	**9**	**6**	**7**	**5**	**8**	**19**	**5**	**9**	**12**	**15**	**10**	**22**	**11**
CATEGORY	**ENVIRONMENTAL**														
Aspect	**Materials**														
10	G4-EN1	3	2	0	2	2	0	1	0	2	3	0	0	2	1
11	G4-EN2	0	1	0	1	2	0	2	0	2	0	0	2	2	1
12	G4-EN3	3	2	0	2	2	0	2	1	2	3	3	1	3	3
13	G4-EN4	0	2	0	1	2	0	2	1	2	0	3	2	0	0
14	G4-EN5	3	0	0	0	0	0	2	1	0	0	3	0	3	0
15	G4-EN6	0	2	0	0	0	0	1	0	0	3	3	0	3	3
16	G4-EN7	0	0	0	0	0	0	0	0	0	2	0	0	0	3
Aspect	**Water**														
17	G4-EN8	3	2	1	2	2	1	0	1	2	2	3	2	2	0
18	G4-EN9	0	0	0	0	0	0	0	0	2	0	3	0	0	0
19	G4-EN10	0	0	0	0	1	0	0	0	0	0	3	0	2	0
	Biodiversity														
20	EN11	1	0	0	0	0	0	0	0	0	0	0	0	1	0
21	EN12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	G4-EN13	1	0	0	0	0	0	0	1	0	1	0	1	1	1
23	G4-EN14	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Emissions**														

24	G4-EN15	3	1	1	2	2	2	3	3	2	3	3	2	3	3
25	G4-EN16	3	1	1	2	2	2	3	3	2	3	3	2	3	3
26	G4-EN17	3	1	0	2	2	2	3	1	2	3	3	0	3	3
27	G4-EN18	3	0	0	0	0	2	2	3	2	3	3	0	3	0
28	G4-EN19	3	0	0	0	0	2	2	0	2	3	3	2	3	3
29	G4-EN20	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	G4-EN21	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Effluents (Sewage) and Waste**														
31	G4-EN22	0	0	0	0	0	0	0	1	1	0	0	0	0	0
32	G4-EN23	3	2	0	2	1	1	3	1	2	3	3	2	3	3
33	G4-EN24	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	G4-EN25	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	G4-EN26	0	0	0	0	0	0	0	1	0	0	0	0	0	0
36	G4-EN27	3	0	0	0	0	0	3	0	0	0	0	0	3	3
37	G4-EN28	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Compliance**														
38	G4-EN29	3	0	0	0	0	0	3	0	0	3	3	0	0	0
Aspect	**Transport**														
39	G4-EN30	2	1	0	2	2	1	2	1	2	0	3	0	3	0
Aspect	**Overall**														
40	G4-EN31	1	0	1	1	0	0	0	0	2	1	2	2	2	3
Aspect	**Supplier Environmental Assessment**														
41	G4-EN32	3	1	0	1	1	1	1	0	1	0	1	1	1	1
42	G4-EN33	0	1	0	1	1	0	0	0	1	0	1	0	1	3
43	G4-EN34	1	0	0	1	0	0	0	0	0	0	0	0	1	0
	SUB-TOTAL ENVIRONMENTAL	**45**	**19**	**4**	**22**	**22**	**14**	**35**	**19**	**31**	**36**	**49**	**19**	**48**	**37**

CATEGORY	**SOCIAL**														
SUB-CAT	**LABOUR PRACTICES AND DECENT WORK**														
Aspect	**Employment**														
44	G4-LA1	3	2	0	2	1	0	3	2	0	1	3	2	3	2
45	G4-LA2	3	0	0	0	0	0	0	1	0	0	3	0	3	0
46	G4-LA3	0	0	0	2	0	2	3	0	0	2	1	2	2	0
Aspect	**Labour/Management Relations**														
47	G4-LA4	0	0	0	0	0	0	3	0	0	0	0	0	0	0
Aspect	**Ocupational Health and Safety**														
48	G4-LA5	0	1	0	1	1	0	0	0	0	0	0	0	2	0
49	G4-LA6	1	0	0	2	0	0	3	1	0	0	0	0	0	0
50	G4-LA7	0	0	0	1	0	0	0	0	0	0	0	0	0	0
51	G4-LA8	0	0	0	1	1	0	0	0	0	0	1	0	1	0
52	G4-LA9	3	2	0	2	2	0	3	1	1	0	3	2	3	1
53	G4-LA10	2	2	1	2	2	2	3	1	1	3	3	2	3	2
54	G4-LA11	1	1	0	2	2	0	3	1	1	2	3	2	3	3
Aspect	**Diversity and Equal Opportunity**														
55	G4-LA12	3	2	0	1	2	2	3	2	2	3	3	2	3	3
Aspect	**Equal Remuneration for Women and Men**														
56	G4-LA13	3	1	0	1	0	1	3	2	1	0	0	0	0	0
Aspect	**Supplier Assessment for Labour Practices**														
57	G4-LA14	0	1	0	1	1	1	1	0	1	0	1	1	1	1
58	G4-LA15	0	1	0	1	1	0	0	0	1	0	1	0	1	1

Aspect	**Labour Practices Grievance Mechanisms**														
59	G4-LA16	1	0	0	1	0	0	0	0	0	0	0	0	1	0
	SUB-TOTAL LP&DW	**20**	**13**	**1**	**20**	**13**	**8**	**28**	**11**	**8**	**11**	**22**	**13**	**26**	**13**
CATEGORY	**HUMAN RIGHTS**														
Aspect	**Investment**														
60	G4-HR1	3	0	2	1	1	1	1	1	2	1	3	1	3	1
61	G4-HR2	3	0	0	0	1	1	3	1	0	1	3	1	3	0
Aspect	**Non-discrimination**														
62	G4-HR3	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Aspect	**Freedom of Association and Collective Bargaining**														
63	G4-HR4	1	0	0	2	2	0	3	2	0	0	0	0	1	0
Aspect	**Child Labour**														
64	G4-HR5	1	2	1	1	1	1	1	1	0	0	2	2	2	0
Aspect	**Forced or Compulsory Labour**														
65	G4-HR6	1	2	1	1	1	1	1	1	0		2	2	2	0
											0				
Aspect	**Security Practices**														
66	G4-HR7	1	0	0	1	2	1	1	1	0	0	0	2	1	0
Aspect	**Indigenous Rights**														
67	G4-HR8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
									0						
Aspect	**Assessment**														
68	G4-HR9	0	0	0	0	1	1	0	0	0	0	3	0	1	0

Aspect	**Supplier Human Rights Assessment**														
69	G4-HR10	3	1	0	1	1	1	3	0	1	1	2	1	1	2
70	G4-HR11	0	1	0	1	1	0	0	0	1	0	1	0	1	3
71	G4-HR12	0	0	0	0	0	0	0	0	0	0	1	0	1	0
	SUB-TOTAL HR	**13**	**6**	**4**	**8**	**11**	**7**	**13**	**7**	**4**	**4**	**17**	**9**	**16**	**6**
CATEGORY	**SOCIETY**														
Aspect	**Local Communities**														
72	G4-SO1	1	2	2	2	2	1	3	0	2	3	3	2	3	3
73	G4-SO2	0	0	0	1	0	0	0	0	0	0	0	0	3	0
Aspect	**Anti-Corruption**														
74	G4-SO3	3	0	0	1	2	0	3	1	0	0	3	0	3	3
75	G4-SO4	3	0	0	1	2	2	3	0	0	1	3	0	3	3
76	G4-SO5	3	0	0	0	0	0	3	0	0	0	3	0	3	3
Aspect	**Public Policy**														
77	G4-SO6	3	0	0	0	1	2	3	0	0	2	3	0	3	3
Aspect	**Anti-Competitive Behaviour**														
78	G4-SO7	0	1	0	0	0	0	3	0	0	0	3	0	3	0
Aspect	**Compliance**														
79	G4-SO8	3	0	0	0	0	0	3	0	0	0	3	0	3	0
Aspect	**Supplier Assessment for Impacts on Society**														
80	G4-SO9	0	1	0	1	1	1	1	0	1	0	1	1	1	1
81	G4-SO10	0	1	0	1	1	0	0	0	1	0	1	0	1	1
Aspect	**Grievance Mechanisms for Impacts on Society**														

82	G4-SO11	1	0	0	1	0	0	0	0	0	0	0	0	1	0
	SUB-TOTAL SOCIETY	**17**	**5**	**2**	**8**	**9**	**6**	**22**	**1**	**4**	**6**	**23**	**3**	**27**	**17**
CATEGORY	**PRODUCT RESPONSIBILITY**														
Aspect	**Customer Health and Safety**														
83	G4-PR1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
84	G4-PR2	0	0	0	0	0	0	3	0	0	0	0	0	0	0
Aspect	**Product and Services Labelling**														
85	G4-PR3	0	0	0	0	0	0	3	0	0	0	0	0	0	0
86	G4-PR4	0	0	0	0	0	0	3	0	0	0	0	0	0	0
87	G4-PR5	3	2	1	1	0	1	0	0	0	3	3	1	3	1
Aspect	**Marketing Communications**														
88	G4-PR6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89	G4-PR7	0	0	0	0	0	0	3	0	0	0	0	0	0	3
Aspect	**Customer Privacy**														
90	G4-PR8	3	2	0	2	0	0	3	0	0	1	3	0	3	3
Aspect	**Compliance**														
91	G4-PR9	3	0	0	0	0	0	3	0	0	0	3	0	0	0
	SUB-TOTAL PR	**9**	**4**	**1**	**3**	**0**	**1**	**18**	**0**	**0**	**4**	**9**	**1**	**6**	**7**
CATEGORY	**FSSD**														
92	FS1	1	1	1	1	1	2	1	0	1	0	0	1	1	1
93	FS2	2	0	2	2	2	1	1	2	2	0	2	1	1	2
94	FS3	2	0	2	2	2	1	1	0	0	1	2	0	2	0
95	FS4	2	2	1	2	2	2	2	1	1	1	2	2	2	2
96	FS5	2	2	1	2	2	2	2	1	2	2	2	1	1	2

97	FS6	0	0	0	0	0	0	0	0	1	0	3	1	3	0
98	FS7	3	2	2	2	2	2	2	2	2	0	3	2	2	3
99	FS8	3	2	1	2	2	0	2	1	2	0	3	1	3	3
100	**Assurance is mandated in Europe (see pg 46 of LSE 2016) FS9**	2	2	0	2	2	2	0	0	0	0	3	1	1	0
101	FS10	1	0	0	1	0	0	0	0	1	1	3	1	2	0
102	FS11	0	0	1	0	0	0	0	0	0	0	3	0	0	0
103	FS12	0	0	1	0	0	1	0	0	1	0	0	0	0	0
104	FS13	3	2	2	0	0	0	1	0	1	0	3	2	3	0
105	FS14	3	0	0	2	2	1	1	0	0	3	3	2	3	3
106	FS15	1	1	1	2	1	1	1	0	1	0	0	0	1	0
107	FS16	2	2	2	2	2	0	1	1	2	2	2	2	1	0
	SUB-TOTAL FSSS	**27**	**16**	**17**	**22**	**20**	**15**	**15**	**8**	**17**	**10**	**34**	**17**	**26**	**16**

	DEPENDENT VARIABLES	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**	**2016**
	GRI-G4	**USA**	**USA**	**USA**	**USA**	**USA**	**USA**	**CAN**	**CAN**	**CAN**	**CAN**	**CAN**	**CAN**	**CAN**
	SSD	LEGG	PNC	STAT	VISA	HART	VORN	BMO	CIBC	SCOT	SUNL	TD	LAUR	RBC
		SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE
	OBSERVATIONS	93	94	95	96	97	98	99	100	101	102	103	104	105
CATEGORY	**ECONOMIC**													
Aspect	**Economic Performance**													
1	G4-EC1	3	3	3	3	3	3	3	2	3	1	3	1	2
2	G4-EC2	3	3	3	2	3	3	3	2	2	1	3	1	2
3	G4-EC3	3	3	1	3	1	1	3	1	3	1	1	1	1
4	G4-EC4	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Market Presence**													
5	G4-EC5	0	0	0	0	0	0	0	0	0	1	0	0	0

6	G4-EC6	0	3	3	0	2	0	1	2	0	1	2	0	2
Aspect	**Indirect Economic Impacts**													
7	G4-EC7	1	3	3	1	1	2	3	2	3	3	3	2	2
8	G4-EC8	0	0	3	3	3	0	3	0	0	3	3	0	1
Aspect	**Procurement Practices**													
9	G4-EC9	3	1	1	1	2	0	1	1	3	0	1	0	1
	SUB-TOTAL ECONOMIC	**13**	**16**	**17**	**13**	**15**	**9**	**17**	**10**	**14**	**11**	**16**	**5**	**11**
CATEGORY	**ENVIRONMENTAL**													
Aspect	**Materials**													
10	G4-EN1	3	0	0	1	1	2	2	0	1	2	0	1	2
11	G4-EN2	3	1	0	2	0	2	0	0	0	1	2	0	0
12	G4-EN3	3	2	3	3	3	3	3	0	3	3	2	1	2
13	G4-EN4	3	0	3	3	3	0	1	0	0	3	1	1	2
14	G4-EN5	3	0	3	3	3	3	3	0	0	3	0	0	2
15	G4-EN6	3	2	3	3	3	3	3	0	3	3	3	0	2
16	G4-EN7	0	0	0	3	0	0	0	0	0	0	2	0	0
Aspect	**Water**													
17	G4-EN8	0	1	0	3	0	3	0	0	3	2	1	0	2
18	G4-EN9	1	0	0	0	0	0	0	0	0	0	0	0	0
19	G4-EN10	0	0	0	0	0	1	0	0	0	0	0	0	0
	Biodiversity													
20	EN11	3	0	0	0	0	0	0	0	0	0	0	0	1
21	EN12	0	0	0	0	0	0	0	0	0	0	0	0	0
22	G4-EN13	3	1	0	1	0	2	0	2	0	0	2	0	0
23	G4-EN14	3	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Emissions**													
24	G4-EN15	3	2	3	3	3	3	3	1	3	3	2	0	2

25	G4-EN16	3	2	3	3	3	3	3	1	3	3	2	0	2
26	G4-EN17	3	2	3	3	3	0	3	1	3	3	2	0	2
27	G4-EN18	0			3	3	3	3	1	3	3	2	0	2
28	G4-EN19	3	2	3	3	3	3	3	1	3	3	2	0	2
29	G4-EN20	0	0	0	0	0		3	0	0	0	0	0	0
30	G4-EN21	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Effluents (Sewage) and Waste**													
31	G4-EN22	0	0	0	0	0	0	0	0	0	0	0	0	0
32	G4-EN23	1	0	2	3	0	3	1	0	0	2	2	0	2
33	G4-EN24	0	0	0	0	0	0	0	0	0	0	0	0	0
34	G4-EN25	0	0	0	0	0	0	0	0	0	0	0	0	0
35	G4-EN26	0	0	0	0	0	0	0	0	0	0	0	0	0
36	G4-EN27	0	0	0	0	0	0	0	0	0	0	0	0	0
37	G4-EN28	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Compliance**													
38	G4-EN29	0	0	0	1	3	1	3	1	0	0	1	0	0
Aspect	**Transport**													
39	G4-EN30	3	0	0	1	0	0	0	0	0	0	1	0	2
Aspect	**Overall**													
40	G4-EN31	1	1	1	0	0	1	1	2	2	2	2	2	2
Aspect	**Supplier Environmental Assessment**													
41	G4-EN32	3	1	3	1	3	1	1	1	1	1	1	0	1
42	G4-EN33	1	0	1	1	0	0	1	1	1	1	1	0	1
43	G4-EN34	0	0	0	0	0	0	0	0	0	0	0	1	1
	SUB-TOTAL ENVIRONMENTAL	**49**	**17**	**31**	**44**	**34**	**37**	**37**	**12**	**29**	**38**	**31**	**6**	**32**
CATEGORY	**SOCIAL**													

SUB-CAT	**LABOUR PRACTICES AND DECENT WORK**													
Aspect	**Employment**													
44	G4-LA1	3	0	3	0	2	0	3	1	0	3	1	0	0
45	G4-LA2	3	2	0	3	0	0	0	1	3	3	1	0	0
46	G4-LA3	2	2	0	2	0	0	0	0	1	0	0	2	1
Aspect	**Labour/Management Relations**													
47	G4-LA4	0	0	0	0	0	0	0	0	3	0	0	0	0
Aspect	**Ocupational Health and Safety**													
48	G4-LA5	0	0	0	3	1	0	0	2	0	0	0	2	0
49	G4-LA6	0	0	0	0	0	0	3	2	3	1	2	0	0
50	G4-LA7	0	0	0	0	0	0	0	2	0	0	2	0	0
51	G4-LA8	0	0	0	1	1	0	0	2	0	0	1	0	0
52	G4-LA9	1	1	3	1	0	0	3	2	3	0	2	2	2
53	G4-LA10	2	2	3	2	1	1	2	2	3	3	2	2	2
54	G4-LA11	1	1	3	3	0	0	1	1	1	3	2	0	1
Aspect	**Diversity and Equal Opportunity**													
55	G4-LA12	3	1	3	3	3	0	3	2	1	1	3	1	2
Aspect	**Equal Remuneration for Women and Men**													
56	G4-LA13	0	0	3	0	0	0	0	1	0	0	1	0	0
Aspect	**Supplier Assessment for Labour Practices**													
57	G4-LA14	0	1	3	1	1	1	1	1	1	1	1	0	1
58	G4-LA15	1	0	1	1	1	0	1	1	1	1	1	0	1
Aspect	**Labour Practices Grievance Mechanisms**													
59	G4-LA16	0	0	0	0	0	0	0	0	0	0	0	1	1

	SUB-TOTAL LP&DW	**16**	**10**	**22**	**20**	**10**	**2**	**17**	**20**	**20**	**16**	**19**	**10**	**11**
CATEGORY	**HUMAN RIGHTS**													
Aspect	**Investment**													
60	G4-HR1	0	1	3	1	1	0	2	2	2	1	2	2	2
61	G4-HR2	3	1	1	3	0	0	3	0	1	0	1	0	0
Aspect	**Non-discrimination**													
62	G4-HR3	0	0	0	0	0	0	1	2	3	1	2	0	1
Aspect	**Freedom of Association and Collective Bargaining**													
63	G4-HR4	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Child Labour**													
64	G4-HR5	3	0	0	1	0	0	0	2	2	0	2	0	0
Aspect	**Forced or Compulsory Labour**													
65	G4-HR6	3	0	0	1	0	0	0	2	2	0	2	0	0
Aspect	**Security Practices**													
66	G4-HR7	3	1	0	1	1	0	2	1	1	1	2	0	1
Aspect	**Indigenous Rights**													
67	G4-HR8	3	0	0	0	0	0	0	2	0	0	1	0	0
Aspect	**Assessment**													
68	G4-HR9	3	1	1	0	0	0	1	1	1	0	1	0	0
Aspect	**Supplier Human Rights Assessment**													
69	G4-HR10	0	1	3	1	1	0	1	1	1	0	2	0	1
70	G4-HR11	0	0	0	0	0	0	0	1	0	0	0	0	1

71	G4-HR12	3	0	0	1	1	0	1	2	1	1	2	1	1
	SUB-TOTAL HR	**21**	**5**	**8**	**9**	**4**	**0**	**11**	**16**	**14**	**4**	**17**	**3**	**7**
CATEGORY	**SOCIETY**													
Aspect	**Local Communities**													
72	G4-SO1	3	3	3	3	3	2	2	1	3	2	3	2	2
73	G4-SO2	3	0	0	0	3	0	0	0	0	0	0	0	0
Aspect	**Anti-Corruption**													
74	G4-SO3	0	3	3	3	0	0	1	1	0	1	0	0	0
75	G4-SO4	3	0	3	3	3	0	2	1	3	1	2	0	2
76	G4-SO5	0	0	3	0	3	0	1	0	0	0	0	0	0
Aspect	**Public Policy**													
77	G4-SO6	0	2	0	3	3	0	0	2	3	3	1	0	0
Aspect	**Anti-Competitive Behaviour**													
78	G4-SO7	1	3	3	3	0	1	1	1	1	1	1	0	0
Aspect	**Compliance**													
79	G4-SO8	1	0	3	1	3	1	3	1	0	0	0	0	0
Aspect	**Supplier Assessment for Impacts on Society**													
80	G4-SO9	0	1	3	1	1	1	1	1	3	1	1	0	1
81	G4-SO10	1	0	1	1	1	0	1	1	1	1	1	0	1
Aspect	**Grievance Mechanisms for Impacts on Society**													
82	G4-SO11	0	0	0	0	0	0	0	0	0	0	0	1	1
	SUB-TOTAL SOCIETY	**12**	**12**	**22**	**18**	**20**	**5**	**12**	**9**	**14**	**10**	**9**	**3**	**7**

CATEGORY	**PRODUCT RESPONSIBILITY**													
Aspect	**Customer Health and Safety**													
83	G4-PR1	0	0	0	0	0	0	0	0	0	0	0	0	0
84	G4-PR2	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Product and Services Labelling**													
85	G4-PR3	0	0	0	0	0	0	0	0	0	0	0	0	0
86	G4-PR4	0	0	0	0	0	0	0	0	0	0	0	0	0
87	G4-PR5	1	3	3	3	1	2	2	2	3	2	2	1	2
Aspect	**Marketing Communications**													
88	G4-PR6	0	0	0	0	0	0	0	0	0	0	0	0	0
89	G4-PR7	0	0	3	0	0	0	0	0	3	0	0	0	0
Aspect	**Customer Privacy**													
90	G4-PR8	0	3	3	1	3	1	3	2	3	3	1	1	2
Aspect	**Compliance**													
91	G4-PR9	1	1	3	1	3	1	3	1	3	0	0	0	0
	SUB-TOTAL PR	**2**	**7**	**12**	**5**	**7**	**4**	**8**	**5**	**12**	**5**	**3**	**2**	**4**
CATEGORY	**FSSD**													
92	FS1	1	1	0	1	1	2	3	1	1	0	3	2	2
93	FS2	2	2	2	1	1	0	3	1	2	2	3	2	2
94	FS3	2	2	0	1	1	0	3	2	2	2	3	2	2
95	FS4	2	2	2	2	1	1	3	2	2	2	2	2	2
96	FS5	1	2	2	1	1	1	3	2	2	2	2	2	1
97	FS6	0	0	3	0	0	0	1	2	3	0	1	0	0
98	FS7	0	2	2	2	0	0	2	2	2	2	3	2	2
99	FS8	2	2	3	1	1	2	1	2	2	2	3	2	2
100	**Assurance is mandated in Europe (see pg 46 of LSE 2016) FS9**	0	0	2	1	0	0	3	1	2	1	1	0	2

101	FS10	0	1	3	1	0	0	1	2	3	0	1	0	0
102	FS11	3	0	3	0	0	0	1	1	3	0	2	0	0
103	FS12	0	0	0	0	0	0	0	2	0	0	1	0	0
104	FS13	0	1	0	2	0	0	3	2	3	0	3	2	2
105	FS14	1	3	1	2	0	0	3	0	3	1	3	2	2
106	FS15	0	1	0	1	0	0	3	1	1	1	1	2	1
107	FS16	0	2	0	2	2	0	3	2	2	2	3	2	2
	SUB-TOTAL FSSS	**14**	**21**	**23**	**18**	**8**	**6**	**36**	**25**	**33**	**17**	**35**	**22**	**22**

YEAR 2015

	DEPENDENT VARIABLES	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**
	GRI-G4	**FRA**	**FRA**	**FRA**	**FRA**	**FRA**	**FRA**	**FRA**	**FRA**	**GER**	**GER**	**GER**	**GER**	**GER**	**GER**
	SSD	**AGRI**	**BNP**	**EURA**	**SOCI**	**AXA**	**CNP**	**NATI**	**WEND**	**AARE**	**ALLI**	**COMM**	**DEUT**	**HANN**	**TALA**
		SCORE	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**
	OBSERVATIONS	106	107	108	109	110	111	112	113	114	115	116	117	118	119
CATEGORY	**ECONOMIC**														
Aspect	**Economic Performance**														
1	G4-EC1	2	2	3	3	2	1	3	1	3	1	3	1	3	3
2	G4-EC2	1	0	2	3	2	1	1	2		2	3	3	3	3
3	G4-EC3	2	2	2	3	1	1	2	2	3	1	2	2	3	2
4	G4-EC4	0	0	0	3	0	0	0	0	3	0	0		3	0
Aspect	**Market Presence**														
5	G4-EC5	0	0	0	3	0	1	3	0	0	0	0	0	3	3
6	G4-EC6	0	1	0	3	0	0	3	1	0	1	0	1	3	3
Aspect	**Indirect Economic Impacts**														
7	G4-EC7	2	2	1	3	2	2	3	1	1	2	3	3	3	3
8	G4-EC8	1	0	0	3	0	0	3	0	0	0	0	3	3	3

Aspect	**Procurement Practices**														
9	G4-EC9	0	0	1	3	0	0	3	1			0	0	0	3
	SUB-TOTAL ECONOMIC	**8**	**7**	**9**	**27**	**7**	**6**	**21**	**8**	**10**	**7**	**11**	**13**	**24**	**23**
CATEGORY	**ENVIRONMENTAL**														
Aspect	**Materials**														
10	G4-EN1	1	2	2	3	2	2	3	2	3	2	3	2	3	3
11	G4-EN2	0	2	2	3	2	2	3	1	0	0	3	2	0	3
12	G4-EN3	1	2	3	3	1	2	3	2	3	2	3	2	3	3
13	G4-EN4	1	2	2	3	1	2	3	1	0	2	0	2	0	0
14	G4-EN5	0	0	0	3	0	0	0	0	0		0	0	3	3
15	G4-EN6	0	1	0	3	0	0	0	2	1	2	3	1	3	3
16	G4-EN7	0	0	0	3	0	0	0	0	0	0	0	0	3	0
Aspect	**Water**														
17	G4-EN8	1	0	3	3	2	2	3	1	3	2	3	2	3	3
18	G4-EN9	0	0	1	0	0	0	3	2	0	0	0	0	0	0
19	G4-EN10	0	0	0	0	0	0	0	1	0	0	0	0	3	0
	Biodiversity														
20	EN11	0	0	0	3	0	1	3	0	0	0	0	0	3	0
21	EN12	0	0	0	3	0	0	3	0	0	0	0	0		0
22	G4-EN13	0	1	0	1	0	2	3	0	0	0	0	0	3	0
23	G4-EN14	0	0	0	0	0	1	3	0	0	0	0	0	0	0
Aspect	**Emissions**														
24	G4-EN15	1	2	3	3	1	2	3	2	3	2	3	2	3	3
25	G4-EN16	1	2	3	3	1	2	3	2	3	2	3	2	3	3
26	G4-EN17	1	2	3	3	1	1	3	2	3	2	3	2	3	3
27	G4-EN18	0	0	0	3	0	0	3	0	0	0	3	0	3	0
28	G4-EN19	0	2	1	3	0	0	3	1	1	2	3	2	3	0
29	G4-EN20	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30	G4-EN21	0	0	3	0	0	0	0	2	0	0	0	0	0	0

Aspect	**Effluents (Sewage) and Waste**														
31	G4-EN22	1	0	1	0	0	0	0	2	0	0	0	0	3	3
32	G4-EN23	1	1	3	2	0	2	3	2	3	2	3	2	3	3
33	G4-EN24	0	0	0	0	0	0	3	0	0	0	0	0	0	0
34	G4-EN25	0	0	0	0	0	0	3	0	0	0	0	0	0	0
35	G4-EN26	0	0	2	0	0	0	3	0	0	0	0	0	0	0
36	G4-EN27	0	0	0	3	0	0	3	0	0	0	3	0	3	3
37	G4-EN28	0	0	0	0	0	0	3	0	0	0	0	0	3	0
Aspect	**Compliance**														
38	G4-EN29	0	0	3	0	0	0	0	0	3	0	3	0	3	3
Aspect	**Transport**														
39	G4-EN30	1	2	3	3	2	2	1	1	3	2	3	2	3	3
Aspect	**Overall**														
40	G4-EN31	0	1	3	3	2	2	1	1	1	1	3	2	3	3
Aspect	**Supplier Environmental Assessment**														
41	G4-EN32	0	1	1	3	0	1	3	1	1	2	3	1	3	3
42	G4-EN33	0	0	1	0	0	0	3	0	3	1	0	0	0	3
43	G4-EN34	1	0	0	0	0	0	0	0	3	0	0	0	3	0
	SUB-TOTAL ENVIRONMENTAL	**11**	**23**	**43**	**60**	**15**	**26**	**71**	**28**	**37**	**26**	**48**	**26**	**69**	**51**
CATEGORY	**SOCIAL**														
SUB-CAT	**LABOUR PRACTICES AND DECENT WORK**														
Aspect	**Employment**														
44	G4-LA1	2	2	3	3	2	2	3	2	3	2	3	1	3	3
45	G4-LA2	1	0	1	3	0	1	0	1	3	1	0	1	3	3
46	G4-LA3	2	0	2	2	0	2	0	2	1	0	2	0	3	3

Aspect	**Labour/Management Relations**														
47	G4-LA4	0	0	0	3	0	0	3	0	3	0	0	0	3	0
Aspect	**Ocupational Health and Safety**														
48	G4-LA5	2	0	1	0	0	2	3	1	0	0	3	0	3	0
49	G4-LA6	2	0	3	3	0	2	0	2	3	2	3	0	3	3
50	G4-LA7	2	0	1	3	0	2	3	0	3	2		0	3	3
51	G4-LA8	2	0	1	3	0	1	0	1	0	0	3	0	3	0
52	G4-LA9	2	2	3	3	1	2	3	1	3	1	3	2	3	3
53	G4-LA10	2	2	2	3	1	2	3	2	3	2	3	2	3	3
54	G4-LA11	1	2	2	3	2	2	3	1	3	2	3	1	3	3
Aspect	**Diversity and Equal Opportunity**														
55	G4-LA12	2	2	3	3	1	2	3	1	3	1	3	1	3	3
Aspect	**Equal Remuneration for Women and Men**														
56	G4-LA13	1	0	0	3	1	1	3	1	3	1	3	0	3	3
Aspect	**Supplier Assessment for Labour Practices**														
57	G4-LA14	1	1	1	3	0	1	3	0	1	2	3	1	3	3
58	G4-LA15	1	0	1	3	0	0	3	0	3	1	0	0	0	3
Aspect	**Labour Practices Grievance Mechanisms**														
59	G4-LA16	1	0	0	0	0	0	0	0	0	0	0	0	3	3
	SUB-TOTAL LP&DW	**24**	**11**	**24**	**41**	**8**	**22**	**33**	**15**	**35**	**17**	**32**	**9**	**45**	**39**
CATEGORY	**HUMAN RIGHTS**														
Aspect	**Investment**														

60	G4-HR1	2	1	3	2	2	1	3	2	1	2	3	3	1	0	
61	G4-HR2	1	1	1	1	0	2	3	1	0	1	2	0	3	0	
Aspect	**Non-discrimination**															
62	G4-HR3	0	0	1	1	0	2	3	0	3	0	3	0	3	3	
Aspect	**Freedom of Association and Collective Bargaining**															
63	G4-HR4	0	0	1	3	0	2	3	2	0	2	3	0	3	3	
Aspect	**Child Labour**															
64	G4-HR5	0	0	1	3	0	2	3	2	0	0	3	2	3	3	
Aspect	**Forced or Compulsory Labour**															
65	G4-HR6	0	0	1	3	0	2	3	2	1	0	3	2	3	3	
Aspect	**Security Practices**															
66	G4-HR7	0	1	1	1	0	1	3	1	1	1	1	2	3	1	
Aspect	**Indigenous Rights**															
67	G4-HR8	0	0	0	0	0	0	3	0	0	0	0	0	0	0	
Aspect	**Assessment**															
68	G4-HR9	2	0	0	0	0	0	3	0	0	0	0	0	0	0	
Aspect	**Supplier Human Rights Assessment**															
69	G4-HR10	1	1	1	3	0	1	3	1	1	2	3	1	3	3	
70	G4-HR11	1	0	1	0	0	0	0	0	3	1	3			3	
71	G4-HR12	1	0	0	1	0	0	0	0	0	0	0	1	3	3	
	SUB-TOTAL HR	**8**	**4**	**11**	**18**	**2**	**13**	**30**	**11**	**10**	**9**	**24**	**11**	**25**	**22**	
CATEGORY	**SOCIETY**															

Aspect	**Local Communities**														
72	G4-SO1	0	1	1	0	1	2	3	1	0	2	3	3	3	1
73	G4-SO2	0	1	0	0	0	0	0	0	0	0	0	2	0	0
Aspect	**Anti-Corruption**														
74	G4-SO3	1	2	0	3	0	1	3	0	3	2	3	3	0	3
75	G4-SO4	1	2	3	3	2	2	3	2	3	2	3	3	3	3
76	G4-SO5	0	0	1	0	0	0	3	0	3	2	3	0	0	3
Aspect	**Public Policy**														
77	G4-SO6	0	0	0	0	0	0	0	0	0	1	3	0	3	0
Aspect	**Anti-Competitive Behaviour**														
78	G4-SO7	0	0	1	0	0	0	1	1	3	0	1	1	3	3
Aspect	**Compliance**														
79	G4-SO8	1	0	1	0	0	0	0	0	3	0	3	0	3	3
Aspect	**Supplier Assessment for Impacts on Society**														
80	G4-SO9	1	1	1	3	0	1	0	0	1	2	1	1	3	3
81	G4-SO10	1	0	1	3	0	0	0	0	3	1	0	0	0	3
Aspect	**Grievance Mechanisms for Impacts on Society**														
82	G4-SO11	1	0	0	1	0	0	0	0	3	0	0	0	3	3
	SUB-TOTAL SOCIETY	**6**	**7**	**9**	**13**	**3**	**6**	**13**	**4**	**22**	**12**	**20**	**13**	**21**	**25**
	PRODUCT RESPONSIBILITY														
Aspect	**Customer Health and Safety**														
83	G4-PR1	0	0	0	3	0	0	0	1	0	0	0	0	0	0
84	G4-PR2	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Aspect	**Product and Services Labelling**														
85	G4-PR3	0	0	0	3	0	0	0	0	0	0	3	0	3	3
86	G4-PR4	0	0	1	0	0	0	0	0	0	0	0	0	3	3
87	G4-PR5	1	1	0	3	2	2	2	2	3	2	3	3	3	3
Aspect	**Marketing Communications**														
88	G4-PR6	0	0	0	0	0	0	0			0	0	3	3	3
89	G4-PR7	0	0	1	0	0	0	0	0	0	0	0	0	3	3
Aspect	**Customer Privacy**														
90	G4-PR8	1	1	0	1	0	2	2	0	3	1	3	3	3	3
Aspect	**Compliance**														
91	G4-PR9	1	0	1	0	0	0	0	0	3	0	3	0	3	0
	SUB-TOTAL PR	**3**	**2**	**3**	**10**	**2**	**4**	**4**	**3**	**9**	**3**	**12**	**9**	**21**	**18**
	FSSD														
92	FS1	1	2	1	3	2	2	1	2	1	1	1	1	1	1
93	FS2	2	2	2	3	2	2	2	1	0	2	2	1	1	0
94	FS3	2	1	1	3	2	2	2	0	1	2	1	3	1	0
95	FS4	1	2	2	3	2	2	2	0	2	2	2	3	2	2
96	FS5	2	2	2	3	0	2	2	2	2	2	2	2	2	2
97	FS6	0	0	2	3	2	0	0	0	0	1	3	1	3	3
98	FS7	1	2	2	2	2	2	2	1	0	1	3	3	3	3
99	FS8	1	2	2	2	1	2	2	1	0	1	3	2	3	3
100	**Assurance is mandated in Europe (see pg 46 of LSE 2016) FS9**	1	1	1	3	0	2	1	2	1	1	0	1	2	0
101	FS10	1	0	3	1	0	0	1	0	0	2	1	1	0	3
102	FS11	1	1	0	0	0	0	0	0	0	1	3	3	3	3
103	FS12	1	1	1	1	0	1	0	0	0	1	0	2	1	0
104	FS13	0	1	1	3	1	1	1	0	0	1	3	1	3	3
105	FS14	2	2	1	3	2	1	1	1	0	2	3	0	3	

106	FS15	1	1	1	2	2	1	1	1	1	1	1	1	1	1
107	FS16	2	2	0	3	1	1	1	0	0	2	2	1	0	2
	SUB-TOTAL FSSS	**19**	**22**	**22**	**38**	**19**	**21**	**19**	**11**	**8**	**23**	**30**	**26**	**29**	**26**

	DEPENDENT VARIABLES	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**
	GRI-G4	**ITA**	**ITA**	**ITA**	**ITA**	**ITA**	**ITA**	**JAP**	**JAP**	**JAP**	**JAP**	**JAP**	**JAP**
	SSD	**UBI**	**AGEN**	**INTE**	**MEDI**	**UNCR**	**UNIP**	**DAIW**	**MUZU**	**MSAD**	**MUFG**	**SMFG**	**SMIT**
		SCORE	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**
	OBSERVATIONS	120	121	122	123	124	125	126	127	128	129	130	131
CATEGORY	**ECONOMIC**												
Aspect	**Economic Performance**												
1	G4-EC1	3	2	3	3	3	2	3	2	1	2	1	3
2	G4-EC2	3	3	3	1	3	2	3	1	1	1	1	3
3	G4-EC3		2	3	1	3	1	3	1	1	1	0	3
4	G4-EC4	3	0	3	0	3	0	3	0	0	0	0	3
Aspect	**Market Presence**												
5	G4-EC5	3	0	3	2	1	1	3	0	0	0	0	3
6	G4-EC6	3	0	3	0	1	0	3	0	0	2	0	3
Aspect	**Indirect Economic Impacts**												
7	G4-EC7	3	1	3	1	2	1	3	1	1	2	2	3
8	G4-EC8	3	2	3	3	0	0	3	0	0	0	0	3
Aspect	**Procurement Practices**												
9	G4-EC9	3	1	0	3	0	2	3	0	0	0	0	3
	SUB-TOTAL ECONOMIC	**24**	**11**	**24**	**14**	**16**	**9**	**27**	**5**	**4**	**8**	**4**	**27**

CATEGORY	**ENVIRONMENTAL**												
Aspect	**Materials**												
10	G4-EN1	3	3	3	3	3	1	3	2	2	0	1	3
11	G4-EN2	3	0	3	0	0	0	3	1	1	0	0	3
12	G4-EN3	3	3	3	3	3	1	3	0	1	0	2	3
13	G4-EN4	3	0	3	0	0	1	3	0	1	0	2	3
14	G4-EN5	3	0	3	0	3	0	3	0	0	0	0	3
15	G4-EN6	3	3	3	3	3	1	3	1	2	0	1	3
16	G4-EN7	3	0	3	0	3	0	3	0	0	0	0	3
Aspect	**Water**												
17	G4-EN8	0	2	3	1	3	1	3	0	2	0	2	3
18	G4-EN9	0	0	0	0	0	0	3	0	0	0	0	3
19	G4-EN10	0	0	0	0	0	0	3	0	0	0	0	3
	Biodiversity												
20	EN11	0	0	0	0	0	0	3	0	1	0	0	3
21	EN12	0	0	0	0	0	0	3	0	0	0	0	3
22	G4-EN13	0	0	0	0	0	0	3	0	1	0	1	3
23	G4-EN14	0	0	0	0	0	0	3	0	0	0	0	3
Aspect	**Emissions**												
24	G4-EN15	3	3	3	3	3	2	3	1	2	0	2	3
25	G4-EN16	3	3	3	3	3	2	3	1	2	0	2	3
26	G4-EN17	3	3	3	0	3	1	3	1	2	0	1	3
27	G4-EN18	3	0	3	0	0	0	3	0	0	0	0	3
28	G4-EN19	3	3	3	0	3	2	3	1	2	0	1	3
29	G4-EN20	3	0		0	3	0	3	0	0	0	0	3
30	G4-EN21	3	0	3	0	0	0	3	0	0	0	0	3
Aspect	**Effluents (Sewage) and Waste**												
31	G4-EN22	3	1	0	0	0	0	3	0	0	0	1	3
32	G4-EN23	3	2	3	1	3	0	3	0	1	0	1	3
33	G4-EN24	3	0	0	0		0	3	0	0	0	0	3

34	G4-EN25	3	0	0	0	0	0	3	0	0	0	0	3
35	G4-EN26	3	0	0	0	0	0	3	0	0	0	0	3
36	G4-EN27	0	0	3	0	3	0	3	0	0	0	0	3
37	G4-EN28	0	0	0	0	0	0	3	0	0	0	0	3
Aspect	**Compliance**												
38	G4-EN29	3	0	3	0	3	0	3	0	0	0	0	3
Aspect	**Transport**												
39	G4-EN30	3	2	3	3	3	1	3	0	2	0	2	3
Aspect	**Overall**												
40	G4-EN31	3	2	3	0	1	0	3	1	1	2	1	3
Aspect	**Supplier Environmental Assessment**												
41	G4-EN32	0	1	0	3	3	1	3	0	1	0	0	3
42	G4-EN33	0	0	0	0	0	0	3	0	1	0	0	3
43	G4-EN34	0	0	3	0	0	1	3	0	1	0	0	3
	SUB-TOTAL ENVIRONMENTAL	**66**	**31**	**60**	**23**	**49**	**15**	**102**	**9**	**26**	**2**	**20**	**102**
CATEGORY	**SOCIAL**												
SUB-CAT	**LABOUR PRACTICES AND DECENT WORK**												
Aspect	**Employment**												
44	G4-LA1	3	3	3	3	3	2	3	0	2	1	0	3
45	G4-LA2	3	3	3	3	3	0	3	0	0	0	0	3
46	G4-LA3	3	2	3	0	1	0	3	1	2	1	2	3
Aspect	**Labour/Management Relations**												
47	G4-LA4	3	3	3	3	3	0	3	0	0	0	0	3

Aspect	**Ocupational Health and Safety**												
48	G4-LA5	3	0	3	0	3	0	3	0	1	0	0	3
49	G4-LA6	3	2	3	3	3	1	3	0	2	0	0	3
50	G4-LA7	3	0	3	0	0	0	3	0	1	0	0	3
51	G4-LA8	3	0	3	0	0	1	3	0	1	0	1	3
52	G4-LA9	3	3	3	3	3	2	3	0	0	0	1	3
53	G4-LA10	3	3	3	2	3	2	3	0	2	2	2	3
54	G4-LA11	3	3	3	2	3	1	3	1	1	2	0	3
Aspect	**Diversity and Equal Opportunity**												
55	G4-LA12	3	3	3	3	3	2	3	1	1	1	0	3
Aspect	**Equal Remuneration for Women and Men**												
56	G4-LA13	3	3	3	2	3	1	3	0	0	0	0	3
Aspect	**Supplier Assessment for Labour Practices**												
57	G4-LA14	3	1	0	0	1	1	3	0	0	0	0	3
58	G4-LA15	0	0	0	0		0	3	0	0	0	0	3
Aspect	**Labour Practices Grievance Mechanisms**												
59	G4-LA16	3	0	3	0	3	1	3	0	1	0	0	3
	SUB-TOTAL LP&DW	**45**	**29**	**42**	**24**	**35**	**14**	**48**	**3**	**14**	**7**	**6**	**48**
CATEGORY	**HUMAN RIGHTS**												
Aspect	**Investment**												
60	G4-HR1	1	2	3	2	3	2	3	2	1	2	3	3
61	G4-HR2	0	1	3	0	3	2	3	0	1	1	2	3
Aspect	**Non-discrimination**												
62	G4-HR3	3	0	3	0	3	0	3	0	0	0	0	3

Aspect	**Freedom of Association and Collective Bargaining**												
63	G4-HR4	3	2	3	0	1	0	3	0	1	0	1	3
Aspect	**Child Labour**												
64	G4-HR5	0	1	3	0	2	1	3	0	1	0	1	3
Aspect	**Forced or Compulsory Labour**												
65	G4-HR6	0	1	3	0	2	0	3	0	1	0	1	3
Aspect	**Security Practices**												
66	G4-HR7	0	1	0	0	2	0	3	1	1	1	0	3
Aspect	**Indigenous Rights**												
67	G4-HR8	0	0	3	0	0	0	3	0	0	0	0	3
Aspect	**Assessment**												
68	G4-HR9	0	0	3	0	0	0	3	0	0	0	1	3
Aspect	**Supplier Human Rights Assessment**												
69	G4-HR10	0	1	0	0	3	1	3	0	0	0	0	3
70	G4-HR11	0	0	0	0	0	0	3	0	0	0	0	3
71	G4-HR12	0	0	3	0	3	1	3	0	1	0	0	3
	SUB-TOTAL HR	**7**	**9**	**27**	**2**	**22**	**7**	**36**	**3**	**7**	**4**	**9**	**36**
CATEGORY	**SOCIETY**												
Aspect	**Local Communities**												
72	G4-SO1	3	2	3	3	3	2	0	1	1	1	1	3
73	G4-SO2	3	0	3	0	0	0	0	0	0	0	0	3
Aspect	**Anti-Corruption**												

74	G4-SO3	3	3	3	0	3	2	3	1	1	0	0	3
75	G4-SO4	3	3	3	3	3	2	3	1	0	0	2	3
76	G4-SO5	3	3	3	0	3	0	3	0	0	0	0	3
Aspect	**Public Policy**												
77	G4-SO6	3	1	3	0	3	0	3	0	0	0	0	3
Aspect	**Anti-Competitive Behaviour**												
78	G4-SO7	3	0	3	0	3	0	3	0	0	0	0	3
Aspect	**Compliance**												
79	G4-SO8	3	0	3	3	3	0	3	0	0	0	0	3
Aspect	**Supplier Assessment for Impacts on Society**												
80	G4-SO9	0	1	0	0	1	1	3	0	0	0	0	3
81	G4-SO10	0	0	0	0	0	0	3	0		0	0	3
										0			
Aspect	**Grievance Mechanisms for Impacts on Society**												
82	G4-SO11	0	0	3	0	0	1	3	0	1	0	0	3
	SUB-TOTAL SOCIETY	**24**	**13**	**27**	**9**	**22**	**8**	**27**	**3**	**3**	**1**	**3**	**33**
	PRODUCT RESPONSIBILITY												
Aspect	**Customer Health and Safety**												
83	G4-PR1	0	0	3	0	0	0	3	0	0	0	0	3
84	G4-PR2	0	0	3	0	0	0	3	0	0	0	0	3
Aspect	**Product and Services Labelling**												
85	G4-PR3	3	0	0	0	0	0	3	0	0	0	0	3
86	G4-PR4	3	0	3	0	3	0	3	0	0	0	0	3
87	G4-PR5	3	3	3	3	3	1	3	1	1	1	1	3

Aspect	**Marketing Communications**												
88	G4-PR6	3	0	3	0	0	0	3	0	0	0	0	3
89	G4-PR7	3	0	3	3	0	0	3	0	0	0	0	3
Aspect	**Customer Privacy**												
90	G4-PR8	3	3	3	3	3	2	3	1	1	1	0	3
Aspect	**Compliance**												
91	G4-PR9	3	0	3	3	3	0	3	0	0	1	0	3
	SUB-TOTAL PR	**21**	**6**	**24**	**12**	**12**	**3**	**27**	**2**	**2**	**3**	**1**	**27**
	FSSD												
92	FS1	2	1	3	1	1	1	3	1	2	1	2	2
93	FS2	1	2	3	1	2	2	3	2	1	2	2	1
94	FS3	2	2	3	1	2	2	3	2	1	2	2	2
95	FS4	2	2	3	2	2	2	3	1	2	2	2	2
96	FS5	2	2	3	2	2	1	3	2	2	2	0	1
97	FS6	3	0	3	0	3	0	3	0	0	0	2	0
98	FS7	3	3	3	3	3	2	3	2	2	1	2	1
99	FS8	3	3	3	0	3	0	3	0	1	2	2	1
100	**Assurance is mandated in Europe (see pg 46 of LSE 2016) FS9**	2	0	3	2	2	1	3	2	2	0	1	0
101	FS10	1	3	3	0	3	0	3	1	0	2	1	1
102	FS11	0	3	3	0	3	0	3	0	0	0	2	0
103	FS12	1	3	3	0	0	0	3	0	1	1	0	1
104	FS13	3	0	3	3	3	0	3	0	1	0	0	0
105	FS14	3	3	3	3	3	0	3	0	0	2	0	2
106	FS15	1	1	3	1	1	2	3	1	1	2	2	1
107	FS16	2	2	3	1	2	0	3	2	0	0	2	1
	SUB-TOTAL FSSS	**31**	**30**	**48**	**20**	**35**	**13**	**48**	**16**	**16**	**19**	**22**	**16**

	DEPENDENT VARIABLES	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015
	GRI-G4	UK	UK	UK	UK	UK	UK	UK	USA	USA	USA	USA	USA	USA
	SSD	BARC	SANT	RBS	LEG&	LSE	PFG	JUPI	GOLD	BBVA	KKR	AMEX	BNY	BOA
		SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE
	OBSERVATIONS	132	133	134	135	136	137	138	139	140	141	142	143	144
CATEGORY	ECONOMIC													
Aspect	Economic Performance													
1	G4-EC1	3	1	1	3	1	2	2	1	3	2	1	3	3
2	G4-EC2	3	0	1	1	2	1	2	2	2	1	3	3	2
3	G4-EC3	1	1	2	2	1	1	2	1	3	1	2	3	3
4	G4-EC4	0	0	0	0	0	0	0	0	0	0	0	0	3
Aspect	Market Presence													
5	G4-EC5	0	1	1	0	2	1	1	0	0	0	0	0	0
6	G4-EC6	0	0	0	1	1	0	0	2	1	0	2	0	3
Aspect	Indirect Economic Impacts													
7	G4-EC7	2	2	2	2	1	0	1	1	1	2	0	3	3
8	G4-EC8	3	0	0	0	0	0	0	0	3	0	3	3	3
Aspect	Procurement Practices													
9	G4-EC9	3	0	0	3	2	1	0	1	0	0	1	1	3
	SUB-TOTAL ECONOMIC	15	5	7	12	10	6	8	8	13	6	12	16	23
CATEGORY	ENVIRONMENTAL													
Aspect	Materials													
10	G4-EN1	3	2	2	2	0	2	1	2	3	0	3	3	3

11	G4-EN2	0	2	2	3	3	2	2	2	3	0	2	3	3
12	G4-EN3	3	1	2	3	2	1	2	2	3	1	3	3	3
13	G4-EN4	0	1	2	1	2	1	2	2	0	0	0	3	3
14	G4-EN5	3	0	0	0	0	0	2	0	0	0	0	3	3
15	G4-EN6	0	2	2	0	2	0	2	2	3	0	3	3	3
16	G4-EN7	0	0	0	0	0	0	0	0	0	0	0	3	3
Aspect	**Water**													
17	G4-EN8	3	2	2	1	3	2	2	2	3	2	0	3	3
18	G4-EN9	0	0	0	0	1	0	0	0	0	0	0	3	3
19	G4-EN10	0	0	0	2	3	0	0	0	0	0	0	3	3
	Biodiversity													
20	EN11	1	0	0	2	0	0	0	0	0	0	0	0	0
21	EN12	0	0	0	0	0	0	0	0	0	0	0	0	0
22	G4-EN13	1	0	0	0	0	0	0	0	0	0	1	0	1
23	G4-EN14	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Emissions**													
24	G4-EN15	3	1	2	2	3	2	2	2	3	1	3	3	3
25	G4-EN16	3	1	2	3	3	2	2	2	3	1	3	3	3
26	G4-EN17	3	1	2	2	0	2	2	2	3	0	3	3	3
27	G4-EN18	3	0	0	0	0	0	2	0	0	0	3	3	3
28	G4-EN19	3	2	2	2	0	0	2	0	0	0	3	3	3
29	G4-EN20	0	0	0	0	0	0	0	0	0	0	0	3	3
30	G4-EN21	0	0	0	0	3	0	0	0	0	0	0	3	3
Aspect	**Effluents (Sewage) and Waste**													
31	G4-EN22	0	0	0	0	3	0	0	0	0	0	0	0	3
32	G4-EN23	3	2	2	3	3	2	2	2	3	2	3	3	3
33	G4-EN24	0	0	0	0	0	0	0	0	0	0	0	0	0
34	G4-EN25	0	0	0	0	1	0	0	0	0	0	0	0	3
35	G4-EN26	0	0	0	0	0	0	0	0	0	0	0	0	3
36	G4-EN27	3	0	0	0	0	0	0	0	0	0	0	0	3
37	G4-EN28	0	0	0	0	1	0	0	0	0	0	0	0	3

Aspect	**Compliance**													
38	G4-EN29	3	0	0	0	3	0	0	0	3	0	3	3	3
Aspect	**Transport**													
39	G4-EN30	2	2	2	2	0	2	2	2	2	0	0	0	3
Aspect	**Overall**													
40	G4-EN31	1	2	2	1	0	0	0	2	2	1	2	3	3
Aspect	**Supplier Environmental Assessment**													
41	G4-EN32	3	1	1	1	1	1	1	0	1	0	1	1	3
42	G4-EN33	0	1	1	1	22	1	0	0	1	0	1	1	3
43	G4-EN34	1	0	0	0	0	0	0	0	0	0	3	0	3
	SUB-TOTAL ENVIRONMENTAL	**45**	**23**	**28**	**31**	**59**	**20**	**28**	**24**	**36**	**8**	**40**	**62**	**88**
CATEGORY	**SOCIAL**													
SUB-CAT	**LABOUR PRACTICES AND DECENT WORK**													
Aspect	**Employment**													
44	G4-LA1	3	2	2	3	2	2	1	0	3	1	0	3	3
45	G4-LA2	3	0	0	0	0	0	0	0	3	1	1	0	3
46	G4-LA3	0	0	2	2	0	0	2	0	2	2	2	0	3
Aspect	**Labour/Management Relations**													
47	G4-LA4	0	0	0	0	0	0	0	0	3	0	0	0	0
Aspect	**Ocupational Health and Safety**													
48	G4-LA5	0	1	0	3	3	2	0	0	0	0	0	1	3
49	G4-LA6	1	2	1	2	3	2	0	0	1	0	0	0	0
50	G4-LA7	0	0	0	0	0	0	0	0	0	1	0	0	3

51	G4-LA8	0	0	1	0	1	1	1	0	0	0	0	1	0
52	G4-LA9	3	1	0	0	3	2	0	0	2	0	3	3	3
53	G4-LA10	2	2	2	3	1	2	2	2	3	2	3	3	3
54	G4-LA11	1	2	2	1	0	0	0	0	1	0	1	3	3
Aspect	**Diversity and Equal Opportunity**													
55	G4-LA12	3	1	2	3	1	1	2	2	3	2	2	3	3
Aspect	**Equal Remuneration for Women and Men**													
56	G4-LA13	3	1	1	3	1	1	1	0	0	0	0	0	1
Aspect	**Supplier Assessment for Labour Practices**													
57	G4-LA14	0	1	1	1	1	1	1	0	1	0	1	1	1
58	G4-LA15	0	1	1	1	0	1	0	0	1	0	1	1	1
Aspect	**Labour Practices Grievance Mechanisms**													
59	G4-LA16	1	0	0	0	0	0	0	0	0	0	3	0	1
	SUB-TOTAL LP&DW	**20**	**14**	**15**	**22**	**16**	**15**	**10**	**4**	**23**	**9**	**17**	**19**	**31**
CATEGORY	**HUMAN RIGHTS**													
Aspect	**Investment**													
60	G4-HR1	3	0	2	3	1	1	1	2	2	2	1	1	2
61	G4-HR2	3	0	1	0	0	0	0	1	0	0	1	0	3
Aspect	**Non-discrimination**													
62	G4-HR3	0	0	0	0	0	0	1	0	3	0	1	0	0
Aspect	**Freedom of Association and Collective Bargaining**													
63	G4-HR4	1	0	2	1	0	2	0	0	3	0	0	0	3

Aspect	**Child Labour**													
64	G4-HR5	1	2	0	0	1	2	0	0	0	0	0		2
													0	
Aspect	**Forced or Compulsory Labour**													
65	G4-HR6	1	2	0	0	1	2	0	0	0	0	0	0	0
Aspect	**Security Practices**													
66	G4-HR7	1	0	2	1	1	0	1	1	0	0	2	1	3
Aspect	**Indigenous Rights**													
67	G4-HR8	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Assessment**													
68	G4-HR9	0	0	2	0	0	0	0	0	0	0	0	0	0
Aspect	**Supplier Human Rights Assessment**													
69	G4-HR10	3	1	1	1	1	1	1	0	1	0	1	1	1
70	G4-HR11	0	1	1	1	0	1	0	0	1	0	1	1	1
71	G4-HR12	0	0	0	0	0	0	0	0	0	0	2	0	1
	SUB-TOTAL HR	**13**	**6**	**11**	**7**	**5**	**9**	**4**	**4**	**10**	**2**	**9**	**4**	**16**
CATEGORY	**SOCIETY**													
Aspect	**Local Communities**													
72	G4-SO1	1	2	2	3	2	2	1	2	2	1	3	3	3
73	G4-SO2	0	0	0	0	0	0	0	0	0	0	0	0	3
Aspect	**Anti-Corruption**													
74	G4-SO3	3	0	2	0	0	1	0	0	0	0	0	3	3
75	G4-SO4	3	0	2	3	2	0	2	0	3	1	2	3	3
76	G4-SO5	3	0	2	0	0	0	0	0	0	0	0	0	0
Aspect	**Public Policy**													

77	G4-SO6	3	0	0	3	2	1	2	2	0	0	2	3	3
Aspect	**Anti-Competitive Behaviour**													
78	G4-SO7	0	1	1	3	0	0	0	0	3	0	1	3	3
Aspect	**Compliance**													
79	G4-SO8	3	0	0	0	0	0	0	0	0	0	1	3	3
Aspect	**Supplier Assessment for Impacts on Society**													
80	G4-SO9	0	1	1	1	1	1	1	0	1	0	1	1	1
81	G4-SO10	0	1	1	1	0	1	0	0	1	0	1	1	1
Aspect	**Grievance Mechanisms for Impacts on Society**													
82	G4-SO11	1	0	0	0	0	0	0	0	0	0	2	0	1
	SUB-TOTAL SOCIETY	**17**	**5**	**11**	**14**	**7**	**6**	**6**	**4**	**10**	**2**	**13**	**20**	**24**
	PRODUCT RESPONSIBILITY													
Aspect	**Customer Health and Safety**													
83	G4-PR1	0	0	0	0	1	0	0	0	0	0	0	0	0
84	G4-PR2	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Product and Services Labelling**													
85	G4-PR3	0	0	0	0	0	0	0	0	0	0	0	0	0
86	G4-PR4	0	0	0	0	0	0	0	0	0	0	0		0
87	G4-PR5	3	2	2	3	1	2	1	0	3	1	3	3	3
Aspect	**Marketing Communications**													
88	G4-PR6	0	0	0	0	0	0	0	0	3	0	0	0	0
89	G4-PR7	0	0	0	3	0	0	0	0	0	0	0	0	0

Aspect	**Customer Privacy**													
90	G4-PR8	3	2	2	3	0	2	0	0	1	0	1	3	3
Aspect	**Compliance**													
91	G4-PR9	3	0	0	3	0	0	0	0	3	0	1	3	3
	SUB-TOTAL PR	**9**	**4**	**4**	**12**	**2**	**4**	**1**	**0**	**10**	**1**	**5**	**9**	**9**
	FSSD													
92	FS1	1	1	2	2	1	1	1	2	2	1	1	2	1
93	FS2	2	0	2	1	2	1	2	2	2	1	1	2	2
94	FS3	2	0	2	1	1	1	2	2	2	1	1	2	1
95	FS4	2	2	2	2	2	2	2	2	2	2	1	2	2
96	FS5	2	2	2	1	1	2	2	2	2	1	2	2	0
97	FS6	0	0	1	0	0	0	0	1	0	0	1	3	3
98	FS7	3	2	2	2	2	2	2	2	3	1	2	3	3
99	FS8	3	2	1	3	2	2	0	2	2	1	1	3	3
100	**Assurance is mandated in Europe (see pg 46 of LSE 2016) FS9**	2	2	2	2	1	2	2	0	2	0	1	2	2
101	FS10	1	0	2	3	1	0	0	0	0	1	0	3	2
102	FS11	0	0	0	3	0	0	0	0	3	0	0	3	0
103	FS12	0	0	0	1	0	0	1	0	0	0	0	2	0
104	FS13	3	2	2	3	0	1	0	1	3	0	0	0	3
105	FS14	3	2	1	0	0	2	0	0	3	0	3	3	3
106	FS15	1	1	2	1	1	1	1	2	2	0	1	2	1
107	FS16	2	2	2	2	0	2	0	0	2	1	2	2	2
	SUB-TOTAL FSSS	**27**	**18**	**25**	**27**	**14**	**19**	**15**	**18**	**30**	**10**	**17**	**36**	**28**

	DEPENDENT VARIABLES	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**
	GRI-G4	USA	USA	USA	USA	USA	USA	USA	USA	USA	USA	USA	USA	USA	USA
	SSD	CAPO	CITI	COME	HART	JPMC	KEYC	LEGG	MARS	S&PG	METL	NORT	PNC	PRUD	REGI

		SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE
	OBSERVATIONS	145	146	147	148	149	150	151	152	153	154	155	156	157	158
CATEGORY	**ECONOMIC**														
Aspect	**Economic Performance**														
1	G4-EC1	1	3	3	1	3	3	3	3	1	3	3	3	3	1
2	G4-EC2	1	3	3	1	3	3	3	3	3	1	3	1	1	1
3	G4-EC3	1	3	3	1	3	1	3	1	3	1	3	3	1	1
4	G4-EC4	0	0	3	0	0	0	0	0	0	0	3	0	0	0
Aspect	**Market Presence**														
5	G4-EC5	0	3	3	0	0	0	0	0	0	0	0	0	0	0
6	G4-EC6	2	2	3	0	0	1	0	2	2	3	3	3	2	0
Aspect	**Indirect Economic Impacts**														
7	G4-EC7	1	3	3	0	3	2	1	1	2	3	3	3	3	1
8	G4-EC8	0	3	3	0	3	0	0	0	0	3	3	0	3	3
Aspect	**Procurement Practices**														
9	G4-EC9	1	1	3	0	0	1	3	0	3	1	3	1	0	1
	SUB-TOTAL ECONOMIC	**7**	**21**	**27**	**3**	**15**	**11**	**13**	**10**	**14**	**15**	**24**	**14**	**13**	**8**
CATEGORY	**ENVIRONMENTAL**														
Aspect	**Materials**														
10	G4-EN1	2	2	3	1	3	1	3	2	2	0	0	2	0	3
11	G4-EN2	1	2	3	1	3	2	3	2	2	0	0	2	1	3
12	G4-EN3	1	3	3	0	3	3	3	1	3	3	3	2	3	0
13	G4-EN4	0	3	3	0	0	0	3	0	0	2	0	0	0	3
14	G4-EN5	0	3	3	0	0	0	3	0	0	3	0	0	0	3
15	G4-EN6	1	3	3	2	3	3	3	3	3	3	0	2	3	3
16	G4-EN7	1	0	3	2	0	3	0	0	0	0	0	0	0	3
Aspect	**Water**														
17	G4-EN8	2	2	3	0	3	0	0	0	3	2	0	2	3	2

18	G4-EN9	1	0	3	0	0	0	0	0	0	0	0	0	0	3
19	G4-EN10	0	2	3	0	0	0	0	0	0	1	0	1	0	0
	Biodiversity														
20	EN11	0	0	3	0	3	0	3	0	0	0	0	0	0	0
21	EN12	0	0	3	0	0	0	0	0	0	0	0	0	0	0
22	G4-EN13	1	1	3	1	0	2	3	2	0	1	1	0	0	0
23	G4-EN14	0	0	3	0	0	0	3	0	0	0	0	0	0	0
Aspect	**Emissions**														
24	G4-EN15	2	3	3	1	3	3	3	3	3	3	3	2	3	0
25	G4-EN16	2	3	3	1	3	3	3	3	3	3	3	2	3	0
26	G4-EN17	2	3	3	1	3	3	3	3	3	3	3	2	3	2
27	G4-EN18	2	3	3	0	3	0	0	0	0	3	3	0	0	0
28	G4-EN19	2	3	3	1	3	3	3	3	3	3	3	2	3	0
29	G4-EN20	0	0	3	0	0	0	0	0	0	0	3	0	0	0
30	G4-EN21	0	0	3	0	0	0	0	0	0	0	3	0	0	0
Aspect	**Effluents (Sewage) and Waste**														
31	G4-EN22	0	1	3	0	0	0	0	0	0	0	0	0	0	3
32	G4-EN23	1	3	3	1	3	3	0	1	3	2	0	2	0	1
33	G4-EN24	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	G4-EN25	0	0	3	0	0	0	0	0	0	0	0	0	0	0
35	G4-EN26	0	0	3	0	0	0	0	0	0	0	0	0	0	3
36	G4-EN27	0	0	0	0	3	3	0	0	0	0	0	0	0	0
37	G4-EN28	0	0	3	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Compliance**														
38	G4-EN29	0	0	3	0	0	0	0	0	0	0	3	0	3	0
Aspect	**Transport**														
39	G4-EN30	0	3	3	0	3	0	3	3	2	1	0	2	1	3
Aspect	**Overall**														
40	G4-EN31	1	1	3	1	0	3	0	1	1	1	0	2	1	2

Aspect	**Supplier Environmental Assessment**														
41	G4-EN32	1	1	3	0	0	1	3	3	3	1	1	1	1	0
42	G4-EN33	1	1	3	0	0	1	0	3	1	1	1	1	0	0
43	G4-EN34	0	1	3	0	0	0	0	0	0	0	3	0	3	0
	SUB-TOTAL ENVIRONMENTAL	**24**	**47**	**96**	**13**	**42**	**37**	**45**	**33**	**35**	**36**	**33**	**27**	**31**	**37**
CATEGORY	**SOCIAL**														
SUB-CAT	**LABOUR PRACTICES AND DECENT WORK**														
Aspect	**Employment**														
44	G4-LA1	1	3	3	1	0	0	3	3	1	1	2	1	1	0
45	G4-LA2	0	3	3	0	3	0	3	3	0	3	3	2	0	0
46	G4-LA3	2	0	3	0	0	0	2	0	0	0	0	0	0	0
Aspect	**Labour/Management Relations**														
47	G4-LA4	0	0	3	0	0	0	0	0	0	0	0	0	3	0
Aspect	**Ocupational Health and Safety**														
48	G4-LA5	0	0	3	0	0	0	0	0	0	0	0	1	0	0
49	G4-LA6	0	0	3	0	0	0	0	0	3	0	0	0	0	0
50	G4-LA7	0	0	3	0	0	0	0	0	0	0	0	0	0	0
51	G4-LA8	0	0	3	0	0		0	0	0	0	3	0	0	0
52	G4-LA9	0	3	3	1	1	1	1	1	1	3	1	1	1	
53	G4-LA10	2	3	3	1	2	1	2	1	3	3	1	2	3	3
54	G4-LA11	1	3	3	0	3	3	1	0	2	3	3	2	1	3
Aspect	**Diversity and Equal Opportunity**														
55	G4-LA12	2	3	3	1	3	3	3	3	3	3	3	1	3	3

Aspect	**Equal Remuneration for Women and Men**														
56	G4-LA13	0	1	3	0	0	0	0	0	3	0	1	0	0	3
Aspect	**Supplier Assessment for Labour Practices**														
57	G4-LA14	1	1	3	0	0	1	0	1	3	1	1	1	1	0
58	G4-LA15	1	1	3	0	0	1	0	1	1	1	1	1	0	0
Aspect	**Labour Practices Grievance Mechanisms**														
59	G4-LA16	0	1	3	0	0	0	0	0	0	0	0	0	0	0
	SUB-TOTAL LP&DW	**10**	**22**	**48**	**4**	**12**	**10**	**15**	**13**	**20**	**18**	**19**	**12**	**13**	**12**
CATEGORY	**HUMAN RIGHTS**														
Aspect	**Investment**														
60	G4-HR1	1	3	3	0	3	1	2	0	1	1	1	1	1	0
61	G4-HR2	0	3	3	0	0	0	3	3	1	2	3	1	1	0
Aspect	**Non-discrimination**														
62	G4-HR3	0	0	3	0	0	0	0	0	3	3	3	0	0	0
Aspect	**Freedom of Association and Collective Bargaining**														
63	G4-HR4	0	1	3	0	1	0	0	0	0	0	3	1	0	0
Aspect	**Child Labour**														
64	G4-HR5	0	1	3	0	2	0	3	0	2	0	0	0	0	0
Aspect	**Forced or Compulsory Labour**														
65	G4-HR6	0	1	3	0	2	0	3	0	2	0	0	0	0	0
Aspect	**Security Practices**														
66	G4-HR7	0	1	3	0	0	0	3	0	1	1	0	1	1	0

Aspect	**Indigenous Rights**														
67	G4-HR8	0	1	3	0	1	0	3	0	0	0	0	0	0	0
Aspect	**Assessment**														
68	G4-HR9	0	1	3	0	0	0	3	0	0	0	0	0	0	0
Aspect	**Supplier Human Rights Assessment**														
69	G4-HR10	1	1	3	0	0	1	0	1	3	1	1	1	1	0
70	G4-HR11	1	1	3	0	0	3	0	1	1	1	1	1	0	0
71	G4-HR12	0	1	3	0	0	0	3	0	0	0	0	1	0	0
	SUB-TOTAL HR	**3**	**15**	**36**	**0**	**9**	**5**	**23**	**5**	**14**	**9**	**12**	**7**	**4**	**0**
CATEGORY	**SOCIETY**														
Aspect	**Local Communities**														
72	G4-SO1	2	3	3	2	3	3	3	3	3	3	3	3	1	0
73	G4-SO2	0	0	3	0	0	0	3	0	0	0	0	0	0	0
Aspect	**Anti-Corruption**														
74	G4-SO3	0	3	3	0	0	3	0	0	0	3	3	3	3	3
75	G4-SO4	0	3	3	0	3	3	3	0	3	3	2	2	1	2
76	G4-SO5	0	3	3	0	0	3	0	0	0	0	0	0	0	0
Aspect	**Public Policy**														
77	G4-SO6	1	3	3	1	3	3	0	0	3	3	3	2	3	0
Aspect	**Anti-Competitive Behaviour**														
78	G4-SO7	1	3	3	1	3	1	1	1	1	3	3	3	1	1
Aspect	**Compliance**														
79	G4-SO8	1	3	3	0	3	0	0	0	1	0	3	0	3	1

Aspect	**Supplier Assessment for Impacts on Society**														
80	G4-SO9	1	1	3	0	0	1	0	1	3	1	1	1	1	0
81	G4-SO10	1	1	3	0	0	1	0	1	1	1	1	1	0	0
Aspect	**Grievance Mechanisms for Impacts on Society**														
82	G4-SO11	0	1	3	0	0	0	0	0	0	0	3	0	0	0
	SUB-TOTAL SOCIETY	**7**	**24**	**33**	**4**	**15**	**18**	**10**	**6**	**15**	**17**	**22**	**15**	**13**	**7**
	PRODUCT RESPONSIBILITY														
Aspect	**Customer Health and Safety**														
83	G4-PR1	0	0	3	0	0	0	0	0	0	0	0	0	0	0
84	G4-PR2	0	0	3	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Product and Services Labelling**														
85	G4-PR3	0	0	3	0	0	0	0	0	0	0	0	0	0	0
86	G4-PR4	0	0	3	0	0	0	0	0	0	0	0	0	0	0
87	G4-PR5	2	3	3	0	3	2	0	1	2	3	2	3	2	0
Aspect	**Marketing Communications**														
88	G4-PR6	0	0	3	0	0	0	0	0	0	0	0	0	0	0
89	G4-PR7	0	0	3	0	0	0	0	0	0	3	0	0	0	0
Aspect	**Customer Privacy**														
90	G4-PR8	0	3	3	0	3	3	0	1	3	3	3	3	0	0
Aspect	**Compliance**														
91	G4-PR9	1	0	3	0	3	1	0	0	0	3	3	1	3	0
	SUB-TOTAL PR	**3**	**6**	**27**	**0**	**9**	**6**	**0**	**2**	**5**	**12**	**8**	**7**	**5**	**0**

	FSSD														
92	FS1	1	2	3	1	1	1	0	1	1	1	1	1	1	0
93	FS2	2	2	3	1	1	1	2	0	1	1	1	2	1	0
94	FS3	1	2	3	0	2	1	2	0	1	1	1	1	2	0
95	FS4	2	2	3	1	2	2	2	1	2	2	1	2	2	2
96	FS5	2	2	3	0	1	2	0	1	2	2	2	2	2	0
97	FS6	0	3	3	0	1	0	0	0	0	1	3	1	1	0
98	FS7	2	2	3	2	3	3	2	2	2	3	2	2	2	0
99	FS8	1	3	3	0	3	3	0	0	0	3	1	2	0	0
100	**Assurance is mandated in Europe (see pg 46 of LSE 2016) FS9**	2	1	3	0	1	0	0	0	0	1	2	0	0	0
101	FS10	0	2	3	0	1	0	2	0	0	3	0	1	1	0
102	FS11	0	2	3	0	3	1	0	0	0	3	3	0	0	0
103	FS12	0	0	3	0	0	0	0	0	0	0	0	0	0	0
104	FS13	1	3	3	0	0	1	0	0	1	3	0	2	2	0
105	FS14	2	3	3	1	3	3	0	2	2	3	0	3	0	0
106	FS15	0	2	3	1	1	1	0	1	1	1	1	2	1	0
107	FS16	2	0	3	1	0	0	0	2	2	1	0	2	0	0
	SUB-TOTAL FSSS	**18**	**31**	**48**	**8**	**23**	**19**	**10**	**10**	**15**	**29**	**18**	**23**	**15**	**2**

	DEPENDENT VARIABLES	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**	**2015**
	GRI-G4	USA	USA	USA	USA	USA	CAN	CAN	CAN	CAN	CAN	CAN	CAN	CAN
	SSD	STAT	VISA	VOYA	WELL	MOOD	BMO	CIBC	IGM	LAUR	RBC	SCOT	SUNL	TD
		SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE
	OBSERVATIONS	159	160	161	162	163	164	165	166	167	168	169	170	171
CATEGORY	**ECONOMIC**													
Aspect	**Economic Performance**													
1	G4-EC1	3	3	3	3	3	3	2	1	3	2	3	0	3
2	G4-EC2	3	3	3	3	1	3	2	1	1	3	2	2	3

3	G4-EC3	1	3	3	3	2	3	2	1	3	3	1	0	3
4	G4-EC4	0	0	3	3	0	0	0	0	0	0	0	0	3
Aspect	**Market Presence**													
5	G4-EC5	1	0	3	3	0	0	0	0	0	0	0	0	1
6	G4-EC6	3	0	0	2	1	2	0	0	3	2	2	0	2
Aspect	**Indirect Economic Impacts**													
7	G4-EC7	3	0	3	2	2	3	1	2	2	3	3	2	3
8	G4-EC8	3	3	0	3	0	3	0	0	3	0	1	0	3
Aspect	**Procurement Practices**													
9	G4-EC9	1	1	3	1	0	1	1	0	0	1	3	0	1
	SUB-TOTAL ECONOMIC	**18**	**13**	**21**	**23**	**9**	**18**	**8**	**5**	**15**	**14**	**15**	**4**	**22**
CATEGORY	**ENVIRONMENTAL**													
Aspect	**Materials**													
10	G4-EN1	0	1	3	1	2	0	1	0	0	2	2	2	2
11	G4-EN2	0	3	3	1	2	0	1	0	1	1	0	2	2
12	G4-EN3	3	3	3	3	1	3	1	1	0	3	3	3	2
13	G4-EN4	3	3	3	2	1	0	0	0	0	2	3	2	0
14	G4-EN5	3	3	0	3	0	3	0	0	0	3	0	0	2
15	G4-EN6	3	3	3	3	3	3	0	1	3	3	3	1	2
16	G4-EN7	3	3	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Water**													
17	G4-EN8	3	1	0	0	2	0	0	0	0	0	3	0	1
18	G4-EN9	3	0	0	0	0	0	0	0	0	0	0	0	0
19	G4-EN10	3	2	0	0	0	0	0	0	0	0	0	0	0
	Biodiversity													
20	EN11	3	0	0	0	2	0	0	0	0	0	1	0	1
21	EN12	3	0	3	0	0	0	0	0	0	0	0	0	0
22	G4-EN13	0	0	0	2	2	0	0	1	0	0	1	0	2

23	G4-EN14	0	0	3	0	0	0	0	0	0	0	0	0	0
Aspect	**Emissions**													
24	G4-EN15	3	3	3	3	0	3	1	1	0	3	3	3	3
25	G4-EN16	3	3	3	3	0	3	1	1	0	3	3	3	3
26	G4-EN17	3	3	3	3	0	3	1	1	0	3	3	2	3
27	G4-EN18	3	3	0	3	0	3	0	0	0	3	3	3	3
28	G4-EN19	3	3	3	3	0	3	0	1	0	3	3	1	3
29	G4-EN20	0	0	0	0	0	3	0	0	0	0	0	0	0
30	G4-EN21	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Effluents (Sewage) and Waste**													
31	G4-EN22	0	0	3	0	0	0	0	0	0	1	0	0	0
32	G4-EN23	3	3	2	3	2	1	1	1	0	3	2	1	2
33	G4-EN24	3	0	3	0	0	0	0	0	0	0	0	0	0
34	G4-EN25	0	0	3	0	0	0	0	0	0	0	0	0	0
35	G4-EN26	0	0	3	0	0	0	0	0	3	0	0	0	0
36	G4-EN27	0	3	0	3	0	0	0	0	0	0	0	0	0
37	G4-EN28	0	0	3	0	0	0	0	0	3	0	0	0	0
Aspect	**Compliance**													
38	G4-EN29	3	0	3	3	0	3	0	0	3	0	0	0	0
Aspect	**Transport**													
39	G4-EN30	3	0	2	2	0	2	0	1	0	1	2	1	2
Aspect	**Overall**													
40	G4-EN31	3	0	0	2	0	0	1	1	1	2	1	2	2
Aspect	**Supplier Environmental Assessment**													
41	G4-EN32	3	1	1	3	1	1	1	0	1	1	1	1	1
42	G4-EN33	0	1	1	1	0	0	1	0	0	1	1	0	1
43	G4-EN34	0	0	3	1	0	0	0	0	1	0	0	0	0

	SUB-TOTAL ENVIRONMENTAL	**63**	**45**	**60**	**48**	**18**	**34**	**10**	**10**	**16**	**38**	**38**	**27**	**37**
CATEGORY	**SOCIAL**													
SUB-CAT	**LABOUR PRACTICES AND DECENT WORK**													
Aspect	**Employment**													
44	G4-LA1	3	0	0	1	0	3	2	0	3	1	1	3	2
45	G4-LA2	0	3	3	3	3	0	1	0	3	0	3	0	1
46	G4-LA3	0	1	0	2	2	0	0	0	0	0	0	0	0
Aspect	**Labour/Management Relations**													
47	G4-LA4	0	0	0	0	0	0	0	0	3	0	3	0	0
Aspect	**Ocupational Health and Safety**													
48	G4-LA5	3	3	0	3	0	0	2	0	3	0	0	0	0
49	G4-LA6	0	0	0	0	0	3	2	0	0	0	2	0	2
50	G4-LA7	0	0	0	0	0	0	1	0	0	0	0	0	0
51	G4-LA8	0	0	0	0	0	0	0	0	0	0	0	0	1
52	G4-LA9	3	0	3	3	0	3	2	0	3	1	2	1	2
53	G4-LA10	3	0	3	1	3	2	2	0	3	2	3	2	2
54	G4-LA11	3	3	3	1	1	1	2	0	3	2	1	3	2
Aspect	**Diversity and Equal Opportunity**													
55	G4-LA12	3	3	3	3	2	3	2	0	3	3	2	1	3
Aspect	**Equal Remuneration for Women and Men**													
56	G4-LA13	3	0	0	1	0	0	1	0	3	0	0	0	0
Aspect	**Supplier Assessment for Labour Practices**													
57	G4-LA14	3	1	1	3	1	1	1	0	3	1	1	1	1
58	G4-LA15	0	1	1	1	0	0	1	0	0	1	1	0	1

Aspect	**Labour Practices Grievance Mechanisms**													
59	G4-LA16	0	3	0	1	0	0	0	0	1	0	0	0	0
	SUB-TOTAL LP&DW	**24**	**18**	**17**	**23**	**12**	**16**	**19**	**0**	**31**	**11**	**19**	**11**	**17**
CATEGORY	**HUMAN RIGHTS**													
Aspect	**Investment**													
60	G4-HR1	3	0	1	1	0	1	1	1	0	2	2	1	2
61	G4-HR2	1	1	1	1	0	3	2	0	1	1	1	1	1
Aspect	**Non-discrimination**													
62	G4-HR3	3	0	0	3	0	0	1	0	0	1	1	0	1
Aspect	**Freedom of Association and Collective Bargaining**													
63	G4-HR4	3	0	0	0	0	0	2	0	3	2	2	0	2
Aspect	**Child Labour**													
64	G4-HR5	2	0	0	2	0	0	0	0	3	0	2	0	
														2
Aspect	**Forced or Compulsory Labour**													
65	G4-HR6	2	0	0	2	0	0	0	0	3	0	2	0	2
Aspect	**Security Practices**													
66	G4-HR7	1	1	0	0	0	1	0	0	0	2	2	0	2
Aspect	**Indigenous Rights**													
67	G4-HR8	0	0	3	0	0	0	0	0	3	0	0	0	0
Aspect	**Assessment**													
68	G4-HR9	1	0	0	1	0	0	1	0	3	0	2	0	2
Aspect	**Supplier Human Rights Assessment**													

69	G4-HR10	3	1	1	1	1	1	1	0	1	1	1	1	1
70	G4-HR11	0	1	1	1	0	0	1	0	0	1	1	0	0
71	G4-HR12	0	0	0	1	0	0	1	0	1	1	2	0	1
	SUB-TOTAL HR	**19**	**4**	**7**	**13**	**1**	**6**	**10**	**1**	**18**	**11**	**18**	**3**	**16**
CATEGORY	**SOCIETY**													
Aspect	**Local Communities**													
72	G4-SO1	3	3	3	2	3	2	2	2	0	2	3	2	3
73	G4-SO2	0	0	0	0	0	0	0	0	3	0	0	0	3
Aspect	**Anti-Corruption**													
74	G4-SO3	3	3	3	3	0	1	0	0	0	3	0	0	2
75	G4-SO4	3	3	3	3	3	2	2	0	0	3	3	1	2
76	G4-SO5	3	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Public Policy**													
77	G4-SO6	3	3	3	3	0	0	2	0	3	0	2	0	1
Aspect	**Anti-Competitive Behaviour**													
78	G4-SO7	3	3	1	1	1	1	1	1	1	1	0	0	1
Aspect	**Compliance**													
79	G4-SO8	3	0	0	3	0	3	0	0	0	1	0	0	3
Aspect	**Supplier Assessment for Impacts on Society**													
80	G4-SO9	3	1	1	1	1	1	1	0	1	1	1	1	1
81	G4-SO10	0	1	1	1	0	0	1	0	0	1	1	0	1
Aspect	**Grievance Mechanisms for Impacts on Society**													
82	G4-SO11	0	0	0	1	0	0	0	0	1	0	0	0	0
	SUB-TOTAL SOCIETY	**24**	**17**	**15**	**18**	**8**	**10**	**9**	**3**	**9**	**12**	**10**	**4**	**17**

	PRODUCT RESPONSIBILITY													
Aspect	**Customer Health and Safety**													
83	G4-PR1	0	0	0	0	0	0	0	0	0	0	0	0	0
84	G4-PR2	0	0	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Product and Services Labelling**													
85	G4-PR3	0	0	0	3	0	0	0	0	0	0	0	0	3
86	G4-PR4	0	0	0	3	0	0	0	0	0	0	3	0	3
87	G4-PR5	3	3	3	3	3	2	2	0	3	3	3	2	3
Aspect	**Marketing Communications**													
88	G4-PR6	0	0	0	0	0	0	0	0	3	0	0	0	0
89	G4-PR7	0	0	0	3	0	0	0	0	3	0	0	0	0
Aspect	**Customer Privacy**													
90	G4-PR8	3	1	0	3	0	2	1	0	1	2	3	0	3
Aspect	**Compliance**													
91	G4-PR9	3	1	0	3	0	3	0	0	0	0	0	0	1
	SUB-TOTAL PR	**9**	**5**	**3**	**18**	**3**	**7**	**3**	**0**	**10**	**5**	**9**	**2**	**13**
	FSSD													
92	FS1	0	1	1	1	1	3	1	1	1	3	2	1	3
93	FS2	1	2	1	1	0	3	2	1	3	2	2	1	3
94	FS3	0	2	1	1	0	3	2	2	0	2	2	2	3
95	FS4	1	2	1	2	2	3	2	0	2	3	2	2	2
96	FS5	1	2	1	2	2	3	2	0	3	2	2	2	2
97	FS6	3	0	0	3	0	2	2	0	1	3	3	1	1
98	FS7	2	2	1	3	2	2	2	1	2	3	2	2	3
99	FS8	3	1	0	3	2	0	2	1	3	3	1	1	3

100	**Assurance is mandated in Europe (see pg 46 of LSE 2016) FS9**	1	1	0	1	1	3	1	0	0	2	2	1	1
101	FS10	3	0	0	3	0	1	1	1	0	2	1	1	3
102	FS11	3	0	0	3	0	1	1	1	1	3	1	1	2
103	FS12	0	0	0	0	0	0	0	0	0	0	0	0	1
104	FS13	0	2	1	3	0	3	2	0	1	3	3	0	3
105	FS14	1	1	0	3	0	3	2	0	3	3	3	2	3
106	FS15	0	2	1	1	1	3	1	1	1	3	2	1	3
107	FS16	0	2	2	2	2	3	2	2	3	3	2	2	3
	SUB-TOTAL FSSS	**19**	**20**	**10**	**32**	**13**	**36**	**25**	**11**	**24**	**40**	**30**	**20**	**39**

	DEPENDENT VARIABLES	**2014**	**2014**	**2014**	**2014**	**2014**	**2014**	**2014**	**2014**	**2014**	**2014**	**2014**	**2014**	**2014**
	GRI-G4	**FRA**	**FRA**	**FRA**	**FRA**	**FRA**	**FRA**	**FRA**	**GER**	**GER**	**GER**	**GER**	**GER**	**GER**
	SSD	**AGRI**	**EURA**	**SOCI**	**AXA**	**CNP**	**NATI**	**WEND**	**AARE**	**ALLI**	**COMM**	**D-BOR**	**DEUT**	**HANN**
		SCORE	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**	**SCORE**
	OBSERVATIONS	172	173	174	175	176	177	178	179	180	181	182	183	184
CATEGORY	**ECONOMIC**													
Aspect	**Economic Performance**													
1	G4-EC1	2	3	3	3	2	3	1	3	1	1	3	1	3
2	G4-EC2	1	2	3	3	0	2	2	3	1	1	3	2	3
3	G4-EC3	2	2	3	1	1	1	1	3	1	1	3	1	3
4	G4-EC4	0	0	3	0	0	0	0	3	0	0	3	0	3
Aspect	**Market Presence**													
5	G4-EC5	0	1	3	0	1	3	0	3	0	1	3	1	3
6	G4-EC6	0	0	3	0	2	3	1	3	0	0	3	0	3
Aspect	**Indirect Economic Impacts**													
7	G4-EC7	2	2	3	2	2	3	1	3	2	1	3	2	3
8	G4-EC8	1	0	3	0	0	3	0	3	0	0	3	0	3
Aspect	**Procurement Practices**													

9	G4-EC9	0	2	3	0	1	3	1	3	1	0	3	0	3
	SUB-TOTAL ECONOMIC	**8**	**12**	**27**	**9**	**9**	**21**	**7**	**27**	**6**	**5**	**27**	**7**	**27**
CATEGORY	**ENVIRONMENTAL**													
Aspect	**Materials**													
10	G4-EN1	1	1	3	3	2	3	1	3	2	2	3	0	3
11	G4-EN2	0	2	3	3	2	3	1	3	2	2	3	0	3
12	G4-EN3	1	3	3	3	2	3	1	3	2	2	3	2	3
13	G4-EN4	1	0	3	3	2	3	1	3	2	2	3	2	3
14	G4-EN5	0	0	3	3	0	0	0	3	0	0	3	0	3
15	G4-EN6	0	0	3	3	0	3	1	3	2	1	3	1	3
16	G4-EN7	0	0	3	3	0	3	0	3	0	0	3	0	3
Aspect	**Water**													
17	G4-EN8	1	3	3	3	2	3	2	3	2	2	3	1	3
18	G4-EN9	0	0	0	0	0	3	0	3	0	0	3	0	3
19	G4-EN10	0	0	0	0	0	0	1	3	0	0	3	0	3
	Biodiversity													
20	EN11	0	1	3	0	1	3	1	3	1	0	3	1	3
21	EN12	0	0	3	0	0	3	1	3	0	0	3	0	3
22	G4-EN13	0	0	0	0	2	3	1	3	1	0	3	0	3
23	G4-EN14	0	0	0	0	0	3	0	3	0	0	3	0	3
Aspect	**Emissions**													
24	G4-EN15	1	3	3	1	2	3	2	3	2	2	3	2	3
25	G4-EN16	1	3	3	3	2	3	2	3	2	2	3	2	3
26	G4-EN17	1	0	3	2	1	3	2	3	2	2	3	2	3
27	G4-EN18	0	0	3	3	0	3	0	3	0	0	3	0	3
28	G4-EN19	0	0	3	1	2	3	1	3	2	1	3	1	3
29	G4-EN20	0	0	0	0	0	0	2	3	0	0	3	0	3
30	G4-EN21	0	3	0	0	0	0	2	3	0	0	3	0	3
Aspect	**Effluents (Sewage) and Waste**													

31	G4-EN22	1	3	1	3	0	0	0	3	2	0	3	0	3
32	G4-EN23	1	3	2	1	2	3	1	3	2	2	3	1	3
33	G4-EN24	0	0	0	0	0	3	0	3	0	0	3	0	3
34	G4-EN25	0	0	0	0	0	3	0	3	0	0	3	0	3
35	G4-EN26	0	0	0	0	0	0	2	3	0	0	3	0	3
36	G4-EN27	0	0	3	0	0	3	0	3	0	0	3	0	3
37	G4-EN28	0	0	0	0	0	3	0	3	0	0	3	0	3
Aspect	**Compliance**													
38	G4-EN29	0	3	0	3	0	0	0	3	0	0	0	0	3
Aspect	**Transport**													
39	G4-EN30	1	3	3	1	2	2	2	3	2	2	0	1	3
Aspect	**Overall**													
40	G4-EN31	0	3	3	1	1	1	2	0	1	1	0	2	0
Aspect	**Supplier Environmental Assessment**													
41	G4-EN32	0	1	3	0	1	3	1	0	1	0	0	0	0
42	G4-EN33	0	1	0	0	0	3	1	0	1	0	0	0	0
43	G4-EN34	1	1	1	0	0	0	0	0	0	0	0	1	0
	SUB-TOTAL ENVIRONMENTAL	**11**	**37**	**61**	**43**	**26**	**75**	**31**	**90**	**31**	**23**	**84**	**19**	**90**
CATEGORY	**SOCIAL**													
SUB-CAT	**LABOUR PRACTICES AND DECENT WORK**													
Aspect	**Employment**													
44	G4-LA1	2	3	3	3	2	3	2	3	2	2	3	1	3
45	G4-LA2	1	0	3	3	1	3	1	3	0	1	3	2	3
46	G4-LA3	2	2	2	2	2	0	2	3	2	2	3	2	3
Aspect	**Labour/Management Relations**													

47	G4-LA4	0	0	3	3	0	3	0	3	0	0	3	0	3
Aspect	**Ocupational Health and Safety**													
48	G4-LA5	2	0	3	3	0	3	1	3	1	0	3	0	3
49	G4-LA6	2	3	3	2	2	3	2	3	2	1	3	0	3
50	G4-LA7	2	0	3	3	0	3	0	3	1	0	3	0	3
51	G4-LA8	2	1	3	0	1	3	2	3	1	0	3	1	3
52	G4-LA9	2	3	3	1	2	3	2	3	1	1	3	1	3
53	G4-LA10	2	2	3	3	2	3	2	3	2	1	3	2	3
54	G4-LA11	1	2	3	3	2	3	2	3	2	0	3	0	3
Aspect	**Diversity and Equal Opportunity**													
55	G4-LA12	2	3	3	3	1	3	2	3	2	1	3	2	3
Aspect	**Equal Remuneration for Women and Men**													
56	G4-LA13	1	1	3	3	0	3	0	3	0	1	3	0	3
Aspect	**Supplier Assessment for Labour Practices**													
57	G4-LA14	1	1	3	0	1	3	1	3	1	0	3	0	3
58	G4-LA15	1	1	3	0	0	3	1	0	1	0	3	0	3
Aspect	**Labour Practices Grievance Mechanisms**													
59	G4-LA16	1	1	1	0	0	1	0	0	0	0	0	1	
	SUB-TOTAL LP&DW	**24**	**23**	**45**	**32**	**16**	**43**	**20**	**42**	**18**	**10**	**45**	**12**	**45**
CATEGORY	**HUMAN RIGHTS**													
Aspect	**Investment**													
60	G4-HR1	2	3	2	3	1	3	1	3	1	0	3	2	3
61	G4-HR2	1	0	1	3	1	3	0	3	0	0	3	0	3
Aspect	**Non-discrimination**													

62	G4-HR3	0	1	0	0	1	0	1	3	0	0	3	0	3
Aspect	**Freedom of Association and Collective Bargaining**													
63	G4-HR4	0	0	3	0	1	2	2	3	2	2	3	0	3
Aspect	**Child Labour**													
64	G4-HR5	0	2	3	0	2	3	2	3	2	2	3	1	3
Aspect	**Forced or Compulsory Labour**													
65	G4-HR6	0	2	3	0	2	3	2	3	2	2	3	1	3
Aspect	**Security Practices**													
66	G4-HR7	0	0	0	0	0	3	0	3	1	0	3	1	3
Aspect	**Indigenous Rights**													
67	G4-HR8	0	0	0	0	0	3	0	3	0	0	0	0	3
Aspect	**Assessment**													
68	G4-HR9	2	0	0	0	0	3	0	3	0	0	0	0	3
Aspect	**Supplier Human Rights Assessment**													
69	G4-HR10	1	1	3	0	1	3	1	0	1	0	3	0	3
70	G4-HR11	1	1	0	0	0	3	1	0	1	0	3	0	3
71	G4-HR12	1	1	0	0	0	1	0	0	0	0	0	1	0
	SUB-TOTAL HR	**8**	**11**	**15**	**6**	**9**	**30**	**10**	**27**	**10**	**6**	**27**	**6**	**33**
CATEGORY	**SOCIETY**													
Aspect	**Local Communities**													
72	G4-SO1	0	2	1	1	2	3	2	3	2	0	3	1	3
73	G4-SO2	0	0	0	3	0	0	0	3	0	0	3	0	3
Aspect	**Anti-Corruption**													

74	G4-SO3	1	1	3	0	1	3	1	3	2	1	3	1	3
75	G4-SO4	1	3	3	3	2	3	2	3	2	0	3	2	3
76	G4-SO5	0	1	0	0	0	3	0	3	0	0	3	0	3
Aspect	**Public Policy**													
77	G4-SO6	0	0	0	0	0	1	1	3	1	0	3	1	3
Aspect	**Anti-Competitive Behaviour**													
78	G4-SO7	0	0	0	3	0	1	0	3	0	0	3	0	3
Aspect	**Compliance**													
79	G4-SO8	1	0	0	3	0	0	0	3	0	0	3	0	3
Aspect	**Supplier Assessment for Impacts on Society**													
80	G4-SO9	1	1	3	0	1	1	1	0	1	0	3	0	3
81	G4-SO10	1	1	3	0	0	0	1	0	1	0	3	0	3
Aspect	**Grievance Mechanisms for Impacts on Society**													
82	G4-SO11	1	1	1	0	0	1	0	0	0	0	0	1	0
	SUB-TOTAL SOCIETY	**6**	**10**	**14**	**13**	**6**	**16**	**8**	**24**	**9**	**1**	**30**	**6**	**30**
	PRODUCT RESPONSIBILITY													
Aspect	**Customer Health and Safety**													
83	G4-PR1	0	0	3	0	0	0	0	3	0	0	3	0	3
84	G4-PR2	0	0	0	0	0	0	0	3	0	0	0	0	3
Aspect	**Product and Services Labelling**													
85	G4-PR3	0	0	3	0	0	0	0	3	0	0	0	0	3
86	G4-PR4	0	0	0	3	0	0	0	3	0	0	3	0	3
87	G4-PR5	1	0	3	3	2	1	1	3	1	2	3	1	0

Aspect	**Marketing Communications**													
88	G4-PR6	0	0	0	3	0	0	0	3	0	0	3	0	3
89	G4-PR7	0	0	0	3	0	0	0	3	0	0	3	0	3
Aspect	**Customer Privacy**													
90	G4-PR8	1	1	2	3	1	2	1	3	1	0	3	2	3
Aspect	**Compliance**													
91	G4-PR9	1	0	0	3	0	0	0	3	0	0	3	0	3
	SUB-TOTAL PR	**3**	**1**	**11**	**18**	**3**	**3**	**2**	**27**	**2**	**2**	**21**	**3**	**24**
	FSSD													
92	FS1	1	1	3	3	1	1	2	1		1	1	1	3
93	FS2	2	1	3	3	2	2	0	1	2	1	1	2	3
94	FS3	2	1	3	0	1	2	1	1	1	0	0	2	3
95	FS4	1	2	3	3	2	2	2	2	2	1	1	2	3
96	FS5	2	1	3	3	2	2	2	1	2	1	2	1	3
97	FS6	0	0	3	3	0	0	0	0	0	0	0	0	3
98	FS7	1	1	2	2	2	1	1	3	2	2	1	2	3
99	FS8	1	1	2	1	1	1	1	3	2	2	1	1	3
100	**Assurance is mandated in Europe (see pg 46 of LSE 2016) FS9**	1	2	3	0	0	0	1	3	2	0	1	1	3
101	FS10	1	3	0	0	0	2	1	3	1	0	0	0	3
102	FS11	1	0	0	3	0	2	0	3	0	0	0	0	3
103	FS12	1	1	2	3	1	1	0	3	1	0	1	1	3
104	FS13	0	0	3	1	0	0	0	3	1	0	1	0	3
105	FS14	2	1	3	3	2	1	0	3	1	0	0	1	3
106	FS15	1	1	2	3	2	2	2	0	2	0	1	1	3
107	FS16	2	0	3	3	0	0	0	3	2	0	2	2	3
	SUB-TOTAL FSSS	**19**	**16**	**38**	**34**	**16**	**19**	**13**	**33**	**21**	**8**	**13**	**17**	**48**

YEAR 2014

	DEPENDENT VARIABLES	2014	2014	2014	2014	2014	2014	2014	2014	2014	2014	2014	2014
	GRI-G4	ITA	ITA	ITA	ITA	ITA	JAP	JAP	JAP	UK	UK	UK	UK
	SSD	AGEN	INTE	MEDI	UNCR	UNIP	MSAD	SMFG	SMITH	BARC	SANT	RBS	LEG&
		SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE
	OBSERVATIONS	185	186	187	188	189	190	191	192	193	194	195	196
CATEGORY	ECONOMIC												
Aspect	Economic Performance												
1	G4-EC1	1	3	1	3	3	1	1	3	1	3	1	3
2	G4-EC2	3	3	1	3	3	1	1	3	1	2	2	1
3	G4-EC3	1	3	1	3	3	1	1	3	2	1	1	1
4	G4-EC4	0	3	0	3	3	0	0	3	0	0	0	0
Aspect	Market Presence												
5	G4-EC5	0	3	0	1	0	0	0	3	1	1	1	1
6	G4-EC6	3	3	0	0	0	0	0	3	0	0	0	1
Aspect	Indirect Economic Impacts												
7	G4-EC7	1	3	0	3	1	0	1	3	2	2	2	2
8	G4-EC8	0	3	0	3	3	0	0	3	0	0	0	0
Aspect	Procurement Practices												
9	G4-EC9	0	0	1	0	3	0	0	3	0	3	0	0
	SUB-TOTAL ECONOMIC	9	24	4	19	19	3	4	27	7	12	7	9
CATEGORY	ENVIRONMENTAL												
Aspect	Materials												
10	G4-EN1	3	3	2	3	3	2	0	3	0	2	2	0
11	G4-EN2	0	3	2	0	0	2	0	3	0	2	2	3
12	G4-EN3	3	3	2	3	3	2	1	3	1	2	2	3
13	G4-EN4	0	3	2	0	0	2	0	3	1	1	2	2

14	G4-EN5	0	3	0	3	0	0	0	3	0	0	0	0
15	G4-EN6	3	3	2	3	3	1	2	3	0	2	2	2
16	G4-EN7	0	3	0	3	0	0	0	3	0	0	0	0
Aspect	**Water**												
17	G4-EN8	1	3	2	3	2	2	1	3	0	2	2	2
18	G4-EN9	0	0	0	0	0	0	0	3	0	0	0	0
19	G4-EN10	0	0	0	0	0	0	0	3	0	0	0	2
	Biodiversity												
20	EN11	0	0	0	0	0	1	0	3	0	0	0	2
21	EN12	0	0	0	0	0	0	0	3	0	0	0	0
22	G4-EN13	0	0	0	1	0	1	1	3	0	0	0	0
23	G4-EN14	0	0	0	0	0	0	0	3	0	0	0	0
Aspect	**Emissions**												
24	G4-EN15	3	3	1	3	3	2	1	3	2	2	2	2
25	G4-EN16	3	3	0	3	3	2	1	3	2	2	2	2
26	G4-EN17	3	3	1	3	3	2	1	3	2	2	0	2
27	G4-EN18	3	3	0	3	0	0	0	3	0	0	2	0
28	G4-EN19	3	3	0	3	1	1	1	3	2	2	2	2
29	G4-EN20	0	0	0	3	0	0	0	3	0	0	2	0
30	G4-EN21	0	3	0	0	0	0	0	3	0	0	0	0
Aspect	**Effluents (Sewage) and Waste**												
31	G4-EN22	0	0	0	0	0	0	0	3	0	0	0	0
32	G4-EN23	2	3	1	3	3	2	1	3	0	2	2	3
33	G4-EN24	0	0	0	0	0	0	0	3	0	0	0	0
34	G4-EN25	0	0	0	0	0	0	0	3	0	0	0	0
35	G4-EN26	0	0	0	0	0	0	0	3	0	0	0	0
36	G4-EN27	0	3	0	3	0	0	0	3	0	0	0	0
37	G4-EN28	0	0	0	0	0	0	0	3	0	0	0	0
Aspect	**Compliance**												
38	G4-EN29	0	3	0	3	0	0	0	3	0	0	0	0

Aspect	**Transport**												
39	G4-EN30	2	3	1	3	3	2	0	3	1	2	2	2
Aspect	**Overall**												
40	G4-EN31	1	3	1	2	3	0	1	3	1	2	2	1
Aspect	**Supplier Environmental Assessment**												
41	G4-EN32	1	0	1	3	1	2	0	3	0	1	1	1
42	G4-EN33	1	0	0	0	1	1	0	3	0	1	1	1
43	G4-EN34	0	3	0	0	0	1	0	3	0	1	1	0
	SUB-TOTAL ENVIRONMENTAL	**32**	**60**	**18**	**54**	**32**	**28**	**11**	**102**	**12**	**28**	**31**	**32**
CATEGORY	**SOCIAL**												
SUB-CAT	**LABOUR PRACTICES AND DECENT WORK**												
Aspect	**Employment**												
44	G4-LA1	3	3	1	3	3	1	0	3	2	2	1	3
45	G4-LA2	3	3	1	3	0	0	0	3	1	1	0	1
46	G4-LA3	0	3	2	3	1	2	0	3	2	0	1	2
Aspect	**Labour/Management Relations**												
47	G4-LA4	3	3	0	3	3	0	0	3	0	0	0	0
Aspect	**Ocupational Health and Safety**												
48	G4-LA5	1	3	1	3	0	0	0	3	1	0	0	3
49	G4-LA6	0	3	2	3	1	2	1	3	0	3	2	2
50	G4-LA7	0		0	0	0	0	0	3	0	0	0	0
51	G4-LA8	0	3	0	3	2	0	0	3	0	1	1	0
52	G4-LA9	3	3	2	3	3	1	1	3	0	3	0	0
53	G4-LA10	3	3	2	3	3	1	1	3	2	2	2	3

54	G4-LA11	3	3	2	3	2	1	1	3	0	0	0	0
Aspect	**Diversity and Equal Opportunity**												
55	G4-LA12	3	3	1	3	3	2	1	3	2	3	2	3
Aspect	**Equal Remuneration for Women and Men**												
56	G4-LA13	3	3	0	3	3	0	0	3	1	1	1	3
Aspect	**Supplier Assessment for Labour Practices**												
57	G4-LA14	1	0	1	0	1	2	0	3	0	1	1	1
58	G4-LA15	1	0	0	0	1	1	0	3	0	1	1	1
Aspect	**Labour Practices Grievance Mechanisms**												
59	G4-LA16	0	3	0	3	0	1	0	3	0	1	1	0
	SUB-TOTAL LP&DW	**27**	**39**	**15**	**39**	**26**	**14**	**5**	**48**	**11**	**19**	**13**	**22**
CATEGORY	**HUMAN RIGHTS**												
Aspect	**Investment**												
60	G4-HR1	1	3	0	3	1	1	1	3	0	1	2	3
61	G4-HR2	0	3	0	3	0	2	1	3	1	0	1	1
Aspect	**Non-discrimination**												
62	G4-HR3	0	3	0	3	0	0	0	3	1	1	1	0
Aspect	**Freedom of Association and Collective Bargaining**												
63	G4-HR4	0	3	0	1	1	1	0	3	0	1	1	1
Aspect	**Child Labour**												
64	G4-HR5	1	3	0	1	1	1	0	3	0	0	2	1

Aspect	**Forced or Compulsory Labour**												
65	G4-HR6	1	3	0	1	1	1	0	3	0	0	2	1
Aspect	**Security Practices**												
66	G4-HR7	0	0	0	2	1	0	0	3	1	2	1	1
Aspect	**Indigenous Rights**												
67	G4-HR8	0	3	0	0	0	0	0	3	0	0	0	0
Aspect	**Assessment**												
68	G4-HR9	0	3	0	0	0	0	1	3	0	0	0	0
Aspect	**Supplier Human Rights Assessment**												
69	G4-HR10	1	0	1	3	1	2	0	3	0	1	1	1
70	G4-HR11	1	0	0	0	1	1	0	3	0	1	1	1
71	G4-HR12	0	3	0	3	0	0	0	3	1	1	1	0
	SUB-TOTAL HR	**5**	**27**	**1**	**20**	**7**	**9**	**3**	**36**	**4**	**8**	**13**	**10**
CATEGORY	**SOCIETY**												
Aspect	**Local Communities**												
72	G4-SO1	1	3	2	3	2	1	1	3	1	3	2	3
73	G4-SO2	0	3	0	0	0	0	0	3	0	0	0	0
Aspect	**Anti-Corruption**												
74	G4-SO3	0	3	0	3	1	0	0	3	1	1	1	0
75	G4-SO4	3	3	0	3	3	1	1	3	0	1	1	3
76	G4-SO5	3	3	0	3	0	0	0	3	0	0	0	0
Aspect	**Public Policy**												
77	G4-SO6	0	3	0	0	0	0	0	3	2	0	0	3

Aspect	**Anti-Competitive Behaviour**												
78	G4-SO7	0	3	0	3	3	1	0	3	1	3	2	3
Aspect	**Compliance**												
79	G4-SO8	0	3	0	3	3	0	0	3	0	3	0	0
Aspect	**Supplier Assessment for Impacts on Society**												
80	G4-SO9	1	0	1	0	1	2	0	3	0	1	1	1
81	G4-SO10	1	0	0	0	1	1	0	3	0	1	1	1
Aspect	**Grievance Mechanisms for Impacts on Society**												
82	G4-SO11	0	3	0	0	0	1	0	3	0	1	1	0
	SUB-TOTAL SOCIETY	**9**	**27**	**3**	**18**	**14**	**7**	**2**	**33**	**5**	**14**	**9**	**14**
	PRODUCT RESPONSIBILITY												
Aspect	**Customer Health and Safety**												
83	G4-PR1	0	3	0	0	0	0	0	3	0	0	0	0
84	G4-PR2	0	3	0	0	0	0	0	3	0	0	0	0
Aspect	**Product and Services Labelling**												
85	G4-PR3	0	0	0	3	0	0	0	3	0	3	0	0
86	G4-PR4	0	3	0	3	0	0	0	3	0	0	0	0
87	G4-PR5	3	3	2	3	3	2	1	3	2	3	2	3
Aspect	**Marketing Communications**												
88	G4-PR6	0	3	0	3	0	0	0	3	0	0	0	0
89	G4-PR7	0	3	0	0	3	0	0	3	0	0	0	3
Aspect	**Customer Privacy**												
90	G4-PR8	3	3	2	3	3	1	0	3	2	3	2	3

Aspect	**Compliance**												
91	G4-PR9	0	3	0	3	3	0	0	3	0	0	0	0
	SUB-TOTAL PR	**6**	**24**	**4**	**18**	**12**	**3**	**1**	**27**	**4**	**9**	**4**	**9**
	FSSD												
92	FS1	1	3	1	2	1	2	2	2	2	1	2	1
93	FS2	1	3	0	2	1	1	1	2	0	0	2	1
94	FS3	1	3	0	2	1	1	1	2	0	1	2	1
95	FS4	1	3	2	2	2	2	2	2	2	2	2	2
96	FS5	2	3	2	2	1	1	2	2	2	2	2	2
97	FS6	0	3	0	3	0	0	0	0	1	0	1	0
98	FS7	3	3	2	3	3	1	1	1	1	3	2	2
99	FS8	3	3	2	3	3	2	1	1	0	3	1	3
100	**Assurance is mandated in Europe (see pg 46 of LSE 2016) FS9**	2	3	2	2	2	1	1	2	1	2	2	2
101	FS10	0	3	0	3	0	0	0	0	0	0	1	3
102	FS11	3	3	0	3	3	0	0	0	0	0	0	0
103	FS12	2	3	1	0	0	1	0	2	1	0	0	0
104	FS13	0	3	0	3	2	0	1	1	1	2	2	1
105	FS14	3	3	1	3	3	2	1	1	1	3	1	3
106	FS15	2	3	1	1	1	2	1	2	2	1	2	2
107	FS16	0	3	2	2	2	1	2	2	0	2	2	2
	SUB-TOTAL FSSS	**24**	**48**	**16**	**36**	**25**	**17**	**16**	**22**	**14**	**22**	**24**	**25**

	DEPENDENT VARIABLES	**2014**	**2014**	**2014**	**2014**	**2014**	**2014**	**2014**	**2014**	**2014**	**2014**	**2014**	**2014**	**2014**
	GRI-G4	**UK**	**UK**	**UK**	**UK**	**USA**	**USA**	**USA**	**USA**	**USA**	**USA**	**USA**	**USA**	**USA**
	SSD	**LSE**	**PFG**	**LLOY**	**JUPI**	ALLS	CAPO	BBVA	GOLD	COME	KEYC	MARS	S&PG	METL
		SCORE	**SCORE**	**SCORE**	**SCORE**	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE
	OBSERVATIONS	197	198	199	200	201	202	203	204	205	206	207	208	209

CATEGORY	ECONOMIC													
Aspect	**Economic Performance**													
1	G4-EC1	1	1	1	1	3	2	3	1	3	1	3	1	1
2	G4-EC2	2	2	1	2	3	1	1	2	3	0	3	3	2
3	G4-EC3	1	2	1	2	3	1	3	1	3	1	1	3	1
4	G4-EC4	0	0	0	0	0	0	0	0	3	0	0	0	0
Aspect	**Market Presence**													
5	G4-EC5	1	1	1	1	0	0	0	0	3	0	0	0	0
6	G4-EC6	0	0	0	0	0	0	0	2	3	1	1	0	0
Aspect	**Indirect Economic Impacts**													
7	G4-EC7	2	1	2	1	3	2	0	2	3	2	2	1	2
8	G4-EC8	0	0	0	0	3	0	3	0	3	0	0	0	0
Aspect	**Procurement Practices**													
9	G4-EC9	0	1	0	0	3	1	1	0	3	2	1	3	0
	SUB-TOTAL ECONOMIC	**7**	**8**	**6**	**7**	**18**	**7**	**11**	**8**	**27**	**7**	**11**	**11**	**6**
CATEGORY	ENVIRONMENTAL													
Aspect	**Materials**													
10	G4-EN1	2	2	0	0	0	2	3	2	3	1	2	2	0
11	G4-EN2	2	2	0	2	2	1	3	2	3	2	1	0	0
12	G4-EN3	2	2	1	2	3	1	3	2	3	2	2	3	1
13	G4-EN4	2	2	1	2	0	0	0	0	3	2	1	0	0
14	G4-EN5	0	1	0	0	3	0	0	0	3	0	0	0	0
15	G4-EN6	2	2	0	0	3	1	2	1	3	2	3	3	2
16	G4-EN7	0	0	0	0	0	0	0	0	3	0	0	0	0
Aspect	**Water**													
17	G4-EN8	2	2	0	2	2	2	3	2	3	0	1	3	1
18	G4-EN9	0	0	0	0	0	0	0	0	3	0	0	0	0
19	G4-EN10	0	0	0	0	0	0	0	0	3	0	0	1	0

	Biodiversity													
20	EN11	0	0	0	0	0	0	0	1	3	0	0	0	0
21	EN12	0	0	0	0	0	0	0	0	3	0	0	0	0
22	G4-EN13	1	1	0	0	1	1	0	1	3	1	1	1	1
23	G4-EN14	0	0	0	0	0	0	0	0	3	0	0	0	0
Aspect	**Emissions**													
24	G4-EN15	2	2	0	2	3	2	3	2	3	2	1	3	1
25	G4-EN16	2	2	0	2	3	2	3	2	3	2	1	3	1
26	G4-EN17	2	2	0	2	3	2	3	0	3	2	0	3	1
27	G4-EN18	0	1	0	0	3	0	0	0	3	0	0	0	0
28	G4-EN19	2	2	0	2	3	1	2	2	3	2	0	3	1
29	G4-EN20	0	0	0	0	0	0	0	0	3	0	0	0	0
30	G4-EN21	0	0	0	0	0	0	0	0	3	0	0	0	0
Aspect	**Effluents (Sewage) and Waste**													
31	G4-EN22	0	0	0	0	0	0	0	0	3	0	0	0	0
32	G4-EN23	2	2	0	2	2	2	3	2	3	2	1	3	1
33	G4-EN24	0	0	0	0	0	0	0	0	3	0	0	0	0
34	G4-EN25	0	0	0	0	0	0	0	0	3	0	0	0	0
35	G4-EN26	0	0	0	0	0	0	0	0	3	0	0	0	0
36	G4-EN27	0	0	0	0	1	0	0	1	3	0	0	0	0
37	G4-EN28	0	0	0	0	0	0	0	0	3	0	0	0	0
Aspect	**Compliance**													
38	G4-EN29	0	0	0	0	0	0	3	0	3	0	0	0	0
Aspect	**Transport**													
39	G4-EN30	2	2	0	2	1	1	2	2	3	2	3	1	0
Aspect	**Overall**													
40	G4-EN31	1	1	0	0	3	1	0	2	3	1	1	0	1

Aspect	**Supplier Environmental Assessment**													
41	G4-EN32	2	1	1	1	1	1	1	1	3	0	3	3	1
42	G4-EN33	1	1	0	0	1	1	1	1	3	0	3	1	1
43	G4-EN34	1	1	0	0	0	0	0	0	3	0	1	0	0
	SUB-TOTAL ENVIRONMENTAL	**30**	**31**	**3**	**21**	**38**	**21**	**35**	**26**	**102**	**23**	**25**	**33**	**13**
CATEGORY	**SOCIAL**													
SUB-CAT	**LABOUR PRACTICES AND DECENT WORK**													
Aspect	**Employment**													
44	G4-LA1	2	2	0	1	1	1	3	0	3	1	1	0	0
45	G4-LA2	1	1	0	0	3	1	3	0	3	1	3	0	0
46	G4-LA3	0	0	0	2	0	0	2	0	3	0	2	2	0
Aspect	**Labour/Management Relations**													
47	G4-LA4	0	0	0	0	0	0	3	0	3	0	0	0	0
Aspect	**Ocupational Health and Safety**													
48	G4-LA5	0	0	0	0	0	0	0	1	3	0	0	2	0
49	G4-LA6	0	2	0	0	0	0	2	0	3	0	1	3	0
50	G4-LA7	0	0	0	0	0	0	0	0	3	0	0	2	0
51	G4-LA8	2	1	0	1	0	0	0	0	3	0	0	0	0
52	G4-LA9	1	2	0	0	3	0	2	0	3	0	0	2	0
53	G4-LA10	2	2	1	2	3	1	3	2	3	1	1	3	2
54	G4-LA11	2	2	2	0	1	1	2	0	3	1	1	1	2
Aspect	**Diversity and Equal Opportunity**													
55	G4-LA12	2	1	1	2	0	1	3	2	3	1	3	3	1
Aspect	**Equal Remuneration for Women and Men**													

56	G4-LA13	1	1	1	1	0	0	0	0	3	0	0	3	0
Aspect	**Supplier Assessment for Labour Practices**													
57	G4-LA14	2	1	1	1	1	1	1	1	3	0	3	1	0
58	G4-LA15	1	1	0	0	1	1	1	1	3	0	3	1	0
Aspect	**Labour Practices Grievance Mechanisms**													
59	G4-LA16	1	1	0	0	0	0	0	0	3	0	1	0	0
	SUB-TOTAL LP&DW	**17**	**17**	**6**	**10**	**13**	**7**	**25**	**7**	**48**	**5**	**19**	**23**	**5**
CATEGORY	**HUMAN RIGHTS**													
Aspect	**Investment**													
60	G4-HR1	1	1	1	1	1	0	2	1	3	0	1	1	0
61	G4-HR2	1	0	0	0	0	0	0	0	3	0	3	1	0
Aspect	**Non-discrimination**													
62	G4-HR3	2	2	0	0	0	0	3	0	3	0	0	3	0
Aspect	**Freedom of Association and Collective Bargaining**													
63	G4-HR4	2	0	0	0	0	0	3	0	3	0	0	0	0
Aspect	**Child Labour**													
64	G4-HR5	0	0	0	0	0	0	0	0	3	0	1	2	0
Aspect	**Forced or Compulsory Labour**													
65	G4-HR6	0	0	0	0	0	0	0	0	3	0	1	2	0
Aspect	**Security Practices**													
66	G4-HR7	1	0	1	1	1	0	1	0	3	0	0	1	0

Aspect	**Indigenous Rights**													
67	G4-HR8	0	0	0	0	0	0	0	0	3	0	0	0	0
Aspect	**Assessment**													
68	G4-HR9	0	0	0	0	0	0	0	0	3	0	0	0	0
Aspect	**Supplier Human Rights Assessment**													
69	G4-HR10	2	1	1	1	1	1	1	1	3	0	2	1	1
70	G4-HR11	1	1	0	0	0	0	1	1	3	0	3	1	0
71	G4-HR12	1	1	0	0	0	0	0	0	3	0	1	0	0
	SUB-TOTAL HR	**11**	**6**	**3**	**3**	**3**	**1**	**11**	**3**	**36**	**0**	**12**	**12**	**1**
CATEGORY	**SOCIETY**													
Aspect	**Local Communities**													
72	G4-SO1	2	1	2	2	3	2	2	2	3	1	3	3	2
73	G4-SO2	0	0	0	0	0	0	0	0	3	0	0	0	0
Aspect	**Anti-Corruption**													
74	G4-SO3	0	1	2	0	0	0	0	0	3	0	1	0	0
75	G4-SO4	1	2	2	2	0	0	3	0	3	0	1	3	2
76	G4-SO5	0	0	0	0	0	0	0	0	3	0	0	0	0
Aspect	**Public Policy**													
77	G4-SO6	0	1	0	2	3	1	0	0	3	0	1	3	0
Aspect	**Anti-Competitive Behaviour**													
78	G4-SO7	1	0	0	0	0	1	3	0	3	1	1	1	1
Aspect	**Compliance**													
79	G4-SO8	0	0	0	0	0	0	1	0	3	0	0	1	0

Aspect	**Supplier Assessment for Impacts on Society**													
80	G4-SO9	2	1	1	1	1	1	1	1	3	0	3	1	0
81	G4-SO10	1	1	0	0	1	1	1	1	3	0	3	1	0
Aspect	**Grievance Mechanisms for Impacts on Society**													
82	G4-SO11	1	1	0	0	0	0	0	0	3	0	1	0	0
	SUB-TOTAL SOCIETY	**8**	**8**	**7**	**7**	**8**	**6**	**11**	**4**	**33**	**2**	**14**	**13**	**5**
	PRODUCT RESPONSIBILITY													
Aspect	**Customer Health and Safety**													
83	G4-PR1	0	0	0	0	0	0	0	0	3	0	0	0	0
84	G4-PR2	0	0	0	0	0	0	0	0	3	0	0	0	0
Aspect	**Product and Services Labelling**													
85	G4-PR3	0	0	0	0	0	0	2	0	3	0	0	0	0
86	G4-PR4	0	0	0	0	0	0	0	0	3	0	0	0	0
87	G4-PR5	1	2	2	1	1	1	3	0	3	0	2	1	2
Aspect	**Marketing Communications**													
88	G4-PR6	0	0	0	0	0	0	3	0	3	0	0	0	0
89	G4-PR7	0	0	0	0	0	0	0	0	3	0	0	0	0
Aspect	**Customer Privacy**													
90	G4-PR8	1	2	2	2	0	0	1	0	3	0	1	3	0
Aspect	**Compliance**													
91	G4-PR9	0	0	0	0	0	0	1	0	0	0	0	0	0
	SUB-TOTAL PR	**2**	**4**	**4**	**3**	**1**	**1**	**10**	**0**	**24**	**0**	**3**	**4**	**2**

	FSSD													
92	FS1	2	2	1	2	0	1	2	0	0	0	1	1	1
93	FS2	1	1	1	1	1	1	2	1	3	1	1	2	0
94	FS3	1	1	1	1	0	0	2	1	3	0	1	1	0
95	FS4	2	2	1	2	2	2	2	2	3	0	1	2	2
96	FS5	2	2	2	2	2	2	2	1	3	0	2	1	0
97	FS6	0	0	0	0	0	0	1	2	3	0	0	1	1
98	FS7	2	2	2	2	1	2	3	2	3	2	2	2	2
99	FS8	1	1	0	1	0	1	0	0	3	2	1	0	1
100	**Assurance is mandated in Europe (see pg 46 of LSE 2016) FS9**	1	2	2	2	0	2	2	0	0	0	1	1	0
101	FS10	0	0	0	0	0	0	0	0	3	0	0	1	0
102	FS11	0	0	0	0	0	0	3	0	3	0	0	0	0
103	FS12	1	0	0	1	0	0	0	1	3	0	0	0	0
104	FS13	0	2	2	0	0	1	3	2	3	2	0	0	2
105	FS14	0	2	0	0	0	1	3	1	3	2	2	2	2
106	FS15	1	2	1	0	2	1	2	2	3	0	1	1	0
107	FS16	2	2	2	0	2		2	1	3	2	1	2	2
	SUB-TOTAL FSSS	**16**	**21**	**15**	**14**	**10**	**14**	**29**	**16**	**42**	**11**	**14**	**17**	**13**

	DEPENDENT VARIABLES	**2014**	**2014**	**2014**	**2014**	**2014**	**2014**	**2014**	**2014**	**2014**	**2014**	**2014**
	GRI-G4	**USA**	**USA**	**USA**	**USA**	**USA**	**USA**	**USA**	CAN	CAN	CAN	CAN
	SSD	MORG	NORT	PRUD	STAT	VORN	VOYA	WELL	BMO	IGM	RBC	TD
		SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE
	OBSERVATIONS	210	211	212	213	214	215	216	217	218	219	220
CATEGORY	**ECONOMIC**											
Aspect	**Economic Performance**											
1	G4-EC1	3	3	3	1	1	1	1	3	3	2	3
2	G4-EC2	3	3	0	2	0	1	1	3	3	1	3

3	G4-EC3	3	3	1	1	1	1	1	3	3	1	3
4	G4-EC4	3	3	0	0	0	0	0	0	0	0	3
Aspect	**Market Presence**											
5	G4-EC5	3	0	0	1	0	0	0	0	0	0	0
6	G4-EC6	3	3	0	0	0	0	0	2	2	2	2
Aspect	**Indirect Economic Impacts**											
7	G4-EC7	3	3	3	2	1	0	2	3	3	2	3
8	G4-EC8	3	3	3	0	0	0	0	3	3	2	3
Aspect	**Procurement Practices**											
9	G4-EC9	3	0	1	1	0	0	1	2	1	1	1
	SUB-TOTAL ECONOMIC	**27**	**21**	**11**	**8**	**3**	**3**	**6**	**19**	**18**	**11**	**21**
CATEGORY	**ENVIRONMENTAL**											
Aspect	**Materials**											
10	G4-EN1	3	0	1	1	0	2	0	2	2	2	2
11	G4-EN2	3	0	0	1	1	2	1	2	2	2	1
12	G4-EN3	3	3	3	1	3	2	0	3	3	2	1
13	G4-EN4	3	0	0	0	0	2	0		3	1	1
14	G4-EN5	3	1	0	0	3	0	0	3	3	2	0
15	G4-EN6	3	2	3	0	3	2	1	3	3	1	2
16	G4-EN7	3	0	0	0	0	0	0	0	0	0	0
						0						
Aspect	**Water**											
17	G4-EN8	3	0	3	1	3	0	0	0	0	1	0
18	G4-EN9	3	0	0	0	0	0	0	0	0	0	1
19	G4-EN10	3	1	0	2	0	0	0	0	0	0	0
	Biodiversity											
20	EN11	0	0	0	0	0	0	0	0	0	0	0
21	EN12	0	0	0	0	0	0	0	0	0	0	0

22	G4-EN13	3	0	0	0	0	1	0	0	0	0	1
23	G4-EN14	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Emissions**											
24	G4-EN15	3	3	3	2	3	1	0	3	3	2	3
25	G4-EN16	3	3	3	1	3	1	0	3	3	2	3
26	G4-EN17	3	3	3	0	0	1	0	2	3	2	3
27	G4-EN18	3	3	0	0	3	0	0	3	3	2	3
28	G4-EN19	3	3	3	2	3	1	2	3	3	2	3
29	G4-EN20	3	0	0	0	0	0	0	3	0	0	0
30	G4-EN21	3	0	0	0	0	0	0	0	0	0	0
Aspect	**Effluents (Sewage) and Waste**											
31	G4-EN22	3	0	0	0	0	0	0	0	0	1	0
32	G4-EN23	3	0	0	1	3	2	1	2	2	2	2
33	G4-EN24	0	0	0	0	0	0	0	0	0	0	0
34	G4-EN25	0	0	0	0	0	0	0	0	0	0	0
35	G4-EN26	0	0	0	0	0	0	0	0	0	0	0
36	G4-EN27	0	0	0	0	0	0	0	0	0	0	0
37	G4-EN28	0	0	0	0	0	0	0	0	0	0	0
Aspect	**Compliance**											
38	G4-EN29	3	3	3	0	0	0	0	3	0	0	0
Aspect	**Transport**											
39	G4-EN30	3	2	1	1	0	1	0	1	1	2	1
Aspect	**Overall**											
40	G4-EN31	3	0	1	1	1	0	2	0	1	2	2
Aspect	**Supplier Environmental Assessment**											
41	G4-EN32	3	0	0	1	0	0	1	0	0	2	2
42	G4-EN33	3	0	0	1	0	0	1	0	0	1	1
43	G4-EN34	3	3	3	0	0	0	0		0	0	0

	SUB-TOTAL ENVIRONMENTAL	**78**	**30**	**30**	**16**	**29**	**18**	**9**	**36**	**35**	**31**	**32**
CATEGORY	**SOCIAL**											
SUB-CAT	**LABOUR PRACTICES AND DECENT WORK**											
Aspect	**Employment**											
44	G4-LA1	3	0	0	2	0	0	0	3	3	1	2
45	G4-LA2	3	3	1	0	0	1	0	0	3	0	1
46	G4-LA3	3	0	0	0	0	0	0	0	0	0	0
Aspect	**Labour/Management Relations**											
47	G4-LA4	3	0	3	0	0	0	0	0	0	0	0
Aspect	**Ocupational Health and Safety**											
48	G4-LA5	3	0	0	0	0	0	0	0	0	0	1
49	G4-LA6	3	0	0	0	0	0	0	0	0	0	2
50	G4-LA7	3	0	0	0	0	0	0	0	0	0	1
51	G4-LA8	3	0	0	0	0	0	0	0	0	0	0
52	G4-LA9	3	3	0	1	0	0	0	3	0	2	1
53	G4-LA10	3	2	3	2	1	1	0	2	3	2	2
54	G4-LA11	3	3	1	1	0	0	0	2	3	1	1
Aspect	**Diversity and Equal Opportunity**											
55	G4-LA12	3	3	3	1	0	1	0	3	3	1	3
Aspect	**Equal Remuneration for Women and Men**											
56	G4-LA13	3	0	0	1	0	0	0	0	0	0	0
Aspect	**Supplier Assessment for Labour Practices**											
57	G4-LA14	3	0	0	1	0	0	1	0	0	2	2
58	G4-LA15	3	0	0	1	0	0	1	0	0	1	1

Aspect	**Labour Practices Grievance Mechanisms**											
59	G4-LA16	3	3	2	0	0	0	0	0	0	0	0
	SUB-TOTAL LP&DW	**48**	**17**	**13**	**10**	**1**	**3**	**2**	**13**	**15**	**10**	**17**
CATEGORY	**HUMAN RIGHTS**											
Aspect	**Investment**											
60	G4-HR1	3	1	1	2	0	0	0	2	2	2	2
61	G4-HR2	3	3	0	1	0	0	0	3	1	0	1
Aspect	**Non-discrimination**											
62	G4-HR3	3	3	0	0	0	0	0	0	0	0	0
Aspect	**Freedom of Association and Collective Bargaining**											
63	G4-HR4	3	3	0	1	0	0	0	1	2	0	0
Aspect	**Child Labour**											
64	G4-HR5	3	2	0	0	0	0	0	0	0	0	1
Aspect	**Forced or Compulsory Labour**											
65	G4-HR6	3	2	0	0	0	0	0	0	0	0	1
Aspect	**Security Practices**											
66	G4-HR7	3	1	0	0	0	0	0	2	1	2	2
Aspect	**Indigenous Rights**											
67	G4-HR8	3	0	0	0	0	0	0	0	0	0	0
Aspect	**Assessment**											
68	G4-HR9	3	0	0	1	0	0	0	0	0	0	0

Aspect	**Supplier Human Rights Assessment**											
69	G4-HR10	3	1	1	1	0	1	1	0	0	2	1
70	G4-HR11	3		0	1	0	0	1	0	0	1	1
71	G4-HR12	3	0	2	0	0	0	0	0	0	0	1
	SUB-TOTAL HR	**36**	**16**	**4**	**7**	**0**	**1**	**2**	**8**	**6**	**7**	**10**
CATEGORY	**SOCIETY**											
Aspect	**Local Communities**											
72	G4-SO1	3	3	2	1	1	2	2	2	2	2	3
73	G4-SO2	3	0	0	0	0	0	0	0	0	0	3
Aspect	**Anti-Corruption**											
74	G4-SO3	3	3	3	0	0	0	0	0	0	1	1
75	G4-SO4	3	0	1	2	0	0	0	2	2	2	2
76	G4-SO5	3	0	0	0	0	0	0	0	0	0	0
Aspect	**Public Policy**											
77	G4-SO6	3	3	3	0	0	0	0	1	0	1	1
Aspect	**Anti-Competitive Behaviour**											
78	G4-SO7	3	3	0	1	1	1	1	1	1	1	1
Aspect	**Compliance**											
79	G4-SO8	3	3	3	0	0	0	0	3	3	0	3
Aspect	**Supplier Assessment for Impacts on Society**											
80	G4-SO9	3	0	0	1	0	0	1	0	0	2	2
81	G4-SO10	3	0	0	1	0	0	1	0	0	1	1
Aspect	**Grievance Mechanisms for Impacts on Society**											

82	G4-SO11	3	3	2	0	0	0	0	0	0	0	0
	SUB-TOTAL SOCIETY	**33**	**18**	**14**	**6**	**2**	**3**	**5**	**9**	**8**	**10**	**17**
	PRODUCT RESPONSIBILITY											
Aspect	**Customer Health and Safety**											
83	G4-PR1	3	0	0	0	0	0	0	0	0	0	0
84	G4-PR2	3	0	0	0	0	0	0	0	0	0	0
Aspect	**Product and Services Labelling**											
85	G4-PR3	3	0	0	0	0	0	0	0	3	0	0
86	G4-PR4	3	0	0	0	0	0	0	0	3	0	0
87	G4-PR5	3	0	2	1	0	0	1	2	3	2	3
Aspect	**Marketing Communications**											
88	G4-PR6	3	0	0	0	0	0	0	0	0	0	0
89	G4-PR7	3	0	0	0	0	0	0	0	3	0	0
Aspect	**Customer Privacy**											
90	G4-PR8	3	3	0	0	0	0	0	1	3	1	3
Aspect	**Compliance**											
91	G4-PR9	3	3	3	0	0	0	0	3	3	0	0
	SUB-TOTAL PR	**27**	**6**	**5**	**1**	**0**	**0**	**1**	**6**	**18**	**3**	**6**
	FSSD											
92	FS1	3	1	0	0	0	0	1	3	1	2	3
93	FS2	3	2	1	2	0	0	1	3	2	1	3
94	FS3	3	2	0	2	0	0	0	3	2	2	3
95	FS4	3	2	2	2	2	1	0	3	2	2	2
96	FS5	3	2	2	1	0	1	1	3	2	1	2

97	FS6	3	3	0	0	0	0	0	0	3	1	3
98	FS7	3	2	1	2	0	1	2	2	3	2	3
99	FS8	3	2	1	0	0	0	0	1	3	2	3
100	**Assurance is mandated in Europe (see pg 46 of LSE 2016) FS9**	3	2	0	1	0	0	0	3	0	1	2
101	FS10	3	0	0	0	0	0	0	1	2	1	3
102	FS11	3	3	0	0	0	0	0	0	3	2	1
103	FS12	3	1	0	1	0	0	0	0	0	0	0
104	FS13	3	0	0	0	0	0	2	2	0	1	3
105	FS14	3	0	0	1	0	0	2	3	2	0	3
106	FS15	3	0	0	0	0	0	1	3	3	2	3
107	FS16	3	0	2	0	0	2	2	3	3	2	3
	SUB-TOTAL FSSS	**48**	**22**	**9**	**12**	**2**	**5**	**12**	**33**	**31**	**22**	**40**