



Bryant University

HONORS THESIS

Environmental, Social, and Governance Performance of Top-Rated Supply Chain Companies: A Quantitative Assessment Model

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Submitted in partial fulfillment of the requirements for graduation
with honors in the Bryant University Honors Program
May 2021

Environmental, Social and Governance Performance of Top-Rated Supply Chain Companies

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ABSTRACT

The objective of this paper is to create a quantitative method to determine the Environmental, Social and Governance (ESG) score of a company in order to mitigate the subjectivity or bias inherent in current ESG scoring methodologies. An ESG score is a metric that tells a consumer how well a firm is performing in meeting Environmental, Social and Governance aspects that are relevant to the firm. This paper effectively develops a new ESG scoring system based off of the Global Reporting Initiative ESG standards framework. Using this framework, ESG scores were calculated for companies in the Gartner Supply Chain Top 25 and compared to the scores given to the same companies from Bloomberg. The ESG scoring system proposed in this paper is an easy to use, transparent system that can be implemented to evaluate the ESG efforts of any company that makes their ESG data available to the public.

It was found that companies who are inherently poor environmentally, socially, and governance end up on lists like Gartner's and other such rankings. The reasoning behind these companies being on these lists are hard to find. They lack transparency. This proves the need for a scoring system like the one described in this paper.

The score system created for this research fills this gap and the need for a transparent, easy to use scoring system. This system can be broadly utilized to all companies who publicly report their corporate responsibility efforts. It eliminates the need for an expensive, third party company to do the footwork of coming up with a score and allows the user to easily find the information themselves.

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INTRODUCTION

Within the last few years, governance, or the factors of decision and policy making in a business, has proven to be of utmost importance to the general public, investors, non-governmental organizations, and business partners. Governance is typically measured alongside environmental and social factors to determine how ethical a company conducts its business operations. The three together make up what is known as an ESG score. The Global Reporting Initiative (GRI) is one of the most well-known reporting frameworks that assist businesses in organizing and publishing their corporate social responsibility measures or ESG score.

This research presents a methodology using the GRI to rank some of the top-rated supply chains in the world. There is a major conflict of interest amongst the existing businesses and frameworks that offer a rank or a ranking service. A conflict of interest exists when firms are required to pay companies like Gartner and the Ethisphere Institute a lot of money to be audited, which leads to the question; How can companies, like Gartner and the Ethisphere Institute, refuse a firm after they paid so much?

This conflict of interest proves that there is a need for an easy to use, transparent, and quantitative tool that can measure a firms ESG performance. This paper answers the question ‘Does the ESG scores we develop using the GRI framework match up with the Gartner ESG score and the Bloomberg R-Factor?’ To do this, it explores previous literature and first and secondhand sources to find a unique scoring system that can be implemented to a majority of public companies worldwide.

This paper starts with a literature review of the topic which delves deep into the idea of ESG scores, what makes an ESG score, and how they are formed. It then describes the actual findings if this research, done through Bloomberg and its R-Factor modules. Lastly, it offers conclusions based off of the companies researched.

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LITERARY REVIEW

The Benefits of Reporting

The connection between the economy, our society, and the environment is becoming increasingly understood and this trio is often referred to as the Triple Bottom Line. This creates a necessity for companies to use a framework like the Global Reporting Initiative (GRI) in order to convey its sustainability efforts to stakeholders. “Sustainability is the key ingredient, like the spice in your curry, or the sugar in your cake, that brings long-term economic prosperity” (Courtneil, 2019.) Prior research has shown that if a company has a systematic approach to reporting, it will benefit from: improved sustainability performance, risk management and investor communications; motivated and engaged employees; higher credibility as a committed and effective corporate citizen; stronger internal data management and reporting systems; improved sustainability strategy and selection of performance indicators and targets; and a means to benchmark sustainability performance against itself and others (Courtneil, 2019). Additionally, “With the disclosure of information outlined by standards such as the GRI Standards, key stakeholders can have a say in regards to a company’s sustainability efforts” (Courtneil, 2019.) This directly correlates to the benefit of having engagements with stakeholders and improved stakeholder relations.

Having a system and standards, like the GRI standards, allows for companies to be extremely transparent. In a very clear and orderly fashion, anyone can find these standards for a company and understand where and what their company does for each point or module.

Exhibit A in the Appendix is from Target’s 2019 Corporate Social Responsibility Report. This exhibit shows that Target was able to clearly identify which GRI Standard was being referenced, GRI 406: Nondiscrimination, and how both the universal and topic specific series are being utilized to describe Target’s stance on the standard; noted by the disclosure number. (Target, 2020.) This information benefits potential investors as well as competitors who are looking to stay well informed or competitive in the market. Additionally, publishing ESG data with the GRI framework allows for a company to avoid potential greenwashing, which will be further defined later.

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Corporate Integration

Social responsibility reporting can be considered a new trend in corporate reporting which traditionally has focused on the financial performance of the firm. Corporations act upon this trend by connecting their strategy to make money with their efforts in participating in sustainable global economy. By publishing this information under terms such as business responsibility report (BRR), triple bottom line (TBL) reporting, corporate social responsibility (CSR), non-financial reporting, integrated reporting, etc., companies are supporting the idea that social responsibility is important. There are many models and frameworks that are used by companies to organize their ESG information, including: EcoManagement and Audit Scheme (EMAS), International Organization for Standardization (ISO14000 series and ISO 26000), Council on Economic Priorities Accreditation Agency which issues Social Accountability Standard (SA8000) later renamed as Social Accountability International (SAI), Institute of Social and Ethical Accountability Standard (AA1000), The Copenhagen Charter, and the Global Reporting Initiative (GRI) (Kumar and Das, 2018). Of these reporting systems the GRI is the most acknowledged globally for ESG reporting. The GRI guidelines are considered the de-facto standards for sustainability reporting which is why it is used above all others in many reports and studies.

The importance of social responsibility was illustrated by Ajay Kumar and Niladri Das's study on BRICS Nations through the use of the Global Reporting Initiative's standards and guidelines. Based on a study of 135 companies from BRICS Nations (Brazil, Russia, India, China, and South Africa) it was shown that the overall average coverage level of various GRI indicators in BRICS nations was 59.67% (Kumar and Das, 2018). The sample included 39 companies from Brazil, 22 from Russia, 18 from India, 20 from China, and 36 from South Africa. This study is a great example of how important and useful the GRI framework can be. In this study, the GRI indicators were used to determine the connection of sustainability reporting to the success of companies in developing nations. In such nations, appropriate allocation of resources is important. Firms spending money and time on the GRI framework helps prove its significance. "Previously the main focus of corporate annual reporting was only restricted and concentrated on the economic and financial parameter only but currently, it has been extended to the environment

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and social reporting as well. The concept of CSR (Corporate Social Responsibility) may be treated as an integral part of the concept of sustainability and its reporting practices” (Kumar and Das, 2018).

Gartner Supply Chain Top 25

The Global Reporting Initiative standards could also be utilized in junction with other resources to determine which companies around the world are excelling in their industry or market. One such resource comes from Gartner. Gartner works with clients by offering a variety of services, such as digital market research, consulting, and global conferences. They serve leaders in industries such as; customer service, finance, human resources, marketing and communications, sales, and supply chain management. Since Gartner works with a large number of business sectors they have developed various best-in-class ranking lists; one of which is called the “Gartner Supply Chain Top 25”. Using the tools and proprietary insights that Gartner has, they compile a list of the top 25 supply chains in businesses around the world each year. There are two types of ways Gartner scores businesses – business performance and opinion. The business performance aspect measures how companies have performed in the past and it uses publicly available financial and ESG data. The opinion aspect of the score reflects a company’s leadership in the supply chain community as well as future potential of the company. Exhibit B in the Appendix shows the categories and weights used by Gartner to determine a company’s total supply chain score. In 2019 Gartner used CSR as a measure and gave it a weight of 10%. However, in 2020 CSR was replaced by ESG which now carries a weight of 15%.

The business performance category is broken down into four separate parts. The first is a 3-Year Weighted ROPA. ROPA stands for ‘Return on Physical Assets’ and this value counts for 20% of the composite score. This metric gives a good understanding of how a company is performing when compared to their investments in assets. (Return on Assets, 2020.) The calculation for this value is:

$$((2019 \text{ operating income} / (2019 \text{ Net property, plant, equipment} + \text{year-end inventory})) \times 50\%) + ((2018 \text{ operating income}) / (2018 \text{ Net property, plant, equipment} + \text{year-end$$

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inventory)) x 30%) + ((2017 operating income / (2017 Net property, plant, equipment + year-end inventory)) x 20%).

Inventory turns is the next value described for business performance. Inventory turns measures the number of times inventory is sold or used. This value is calculated as:

$$2019 \text{ cost of goods sold} / 2019 \text{ quarterly average inventory}$$

It counts for 5% of the composite score. (Hargrave, 2020.)

3-year weighted revenue growth also plays a part in the business performance category for the Gartner list. Similar to the 3-year weighted ROPA, this value is calculated as:

$$((\text{change in revenue } 2019-2018) \times 50\%) + ((\text{change in revenue } 2018-2017) \times 30\%) + ((\text{change in revenue } 2017-2016) \times 20\%)$$

and counts for 10% of the composite score. (Motley, 2016.)

The last 15% of the business performance composite score for the Gartner's list is an ESG component score. The ESG scoring method/system for Gartner is very subjective. As stated by Gartner, "We designed a scoring system for ESG based on our research, input from third-party experts in ESG, a cross-section of supply chain community members and our broader research organization" (Gartner, 2020). While beneficial to know where the score came from, the actual measurements of this score are proprietary and lack transparency. Gartner claims to find information for their score from other scoring companies who have an equal lack of transparency when dealing with ESG. The Ethisphere Institute is one such company, which we discuss in the next section.

The last two rows in Exhibit B represent the opinion component. Both peer opinion and the opinion of Gartner analysts are taken into consideration and each count for 25% of the composite score. Both opinion categories are based on each panel's individual ranking order against the definition of the DDVN model (Demand Driven Value Network.) This model looks at 5 main functions of a business: plan, source, make, deliver, and return, and scores them against other businesses. (Marketing Perspectives, 2016.)

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Ethisphere Institute

The Ethisphere Institute is a consulting company, like Gartner, but is more focused on the ethical aspects of business. They offer a variety of services to companies looking to improve performance in ethical practices. Similar to Gartner, Ethisphere offers an annual list of the world's most ethical companies. Ethisphere's rating system, called the Ethics Quotient, "is a proprietary rating system that collects and objectively scores self-reported data in five weighted categories." (Ethisphere, 2020.) Ethisphere's list is based off of 5 main components, depicted in Exhibit C of the Appendix. Ethics and Compliance makes up 35% of the score, Culture of Ethics and Corporate Citizenship and Responsibility are each 20%, Governance is 15%, and finally Leadership and Reputation account for 10%. Ethisphere says that "questions included in the Ethics Quotient are periodically reviewed and updated based on changing regulations, expectations, and best practices." (Ethisphere, 2020.)

While Ethisphere's work is on a global scale with successes in growth, liaison programs, and training effectiveness, criticism exists that counter Ethisphere's legitimacy. In order to be considered for the list, companies need to self-nominate by "simply completing the survey, submitting backup materials and sending in the modest nomination fee" (Schwartz, 2016) of roughly \$3,000. Additionally, companies who receive the designation as one of the 'world's most ethical companies' "have the option to pay \$10,000 for use of the World's Most Ethical Companies logo." (Schwartz, 2016.) The amount of money that companies spend to be involved with Ethisphere leads to the question "How can Ethisphere decline a nomination from one of these companies?" leading to a conflict of interest and skewed data on the 'world's most ethical companies.'

Bloomberg

A second source that provides ESG data on companies around the world is Bloomberg. Bloomberg has seen the interest in ESG data rise in the last 10 years which gave them a reason to focus on and develop their ESG indices and a scoring system called the 'R-Factor.' Bloomberg "created these indices in collaboration with the Sustainability Accounting Standards Board (SASB) using R-Factor™, an environmental, social and governance (ESG) scoring solution developed by State Street Global Advisors." (Bloomberg, 2020.) The R-Factor, or responsibility

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factor, “systematically integrates best-in-class data, SASB’s (Sustainability Accounting Standards Board) transparent sustainability framework, financial materiality across industries, and corporate governance standards.” (Bloomberg, 2020.)

Although Bloomberg claims its R-Factor score is ‘transparent,’ its sources and articles that describe what the R-Factor is leaves the reader confused to its true origin and make up.

Bloomberg claims its R-Factor is created from 4 global data providers. Bloomberg explains that these data providers allow it to “help clients make better sense of ... vast amount(s) of data and allow for decision-ready insights [by creating] a scoring model that systematically harnesses hundreds of metrics and leverages ... investment teams’ expertise” (Bloomberg, 2020).

Similarly, many other links associated with Bloomberg describe its R-Factor in this vague way. These sources lack the mathematical support and explanation needed to make Bloomberg’s R-Factor actually transparent. A combination of all these gives an accurate and measurable look at a company’s sustainability efforts.

The main issue with the Ethisphere’s rating system is the lack of transparency in how a company’s score is actually calculated. Hence, the ESG score reported for each company in the Gartner Supply Chain Top 25 for 2020 is questionable. In addition, it was noted that the Bloomberg R-Factor is also a proprietary method, and hence it is also susceptible to bias. Because of this issue of subjectivity there is a gap in the ESG scoring literature that can be filled by using publicly available ESG information on a company and the GRI standards to create an unbiased quantitative ESG scoring methodology for that company. We can then compare our GRI generated ESG score with the ESG scores from Gartner, Ethisphere, and Bloomberg to assess their accuracy in ESG reporting.

Greenwashing

Greenwashing is a practice of making a product or service seem more positive and beneficial to the environment than it actually is. (Kenton, 2020). Greenwashing can be considered a type of false advertising. An example of greenwashing is shown in Exhibit D of the Appendix, in an advertisement used by Reynolds American for their line of Natural American Spirit cigarettes. The message that Reynolds American is trying to say is that their business is “eco-friendly.”

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And while they may have installed hand dryers in their Santa Fe office and saved 30,000 paper cups in 2010, according to the Campaign for Tobacco-Free Kids, “Cigarette smoke spews more than 7,000 chemicals into the environment, including hundreds that are toxic and at least 69 that cause cancer.” (Campaign for Tobacco-Free Kids, 2020.) Using the GRI Standards, the Advertising Standards Authority label certain advertisements, such as Reynolds American’s, as “greenwashing,” which can be detrimental to a company (Earth Day 2020, 2020).

A second example comes from the fast fashion industry. H&M, (represented on Gartner’s top 25 list) and other firms in this industry, boast its profitability through its large scale of growth and ease to make large quantities of inexpensive clothes. To battle its footprint, H&M implemented the Garment Collection Program. On a global scale, buyers of H&M products can drop bags of unwanted clothes back to designated recycling boxes in local stores for the company to repurpose and recycle. However, according to a nonprofit fashion business called ‘ReMake,’ 80% of textiles globally are still being burned or bound for landfills. (McCarthy, 2020).

The Global Reporting Initiative (GRI)

The Global Reporting Initiative (Global Reporting Initiative, 2020) is an independent standards organization that helps a business file and communicate their cooperate governance, social, and environmental responsibility efforts. Some of these efforts include impacts on climate change, human rights, and corruption. “GRI Standards were produced to provide an international, standardized language that corporations could use to report on their business sustainability efforts” (Courtnell, 2019.) These standards are easy to follow and understand, which allows consumers, investors, supply chain partners, non-governmental organizations and other stakeholders to fully understand a company’s CSR efforts. The Global Reporting Initiative was founded in 1997 as a joint project of the UN (United Nations) Environment Programme (UNEP) and the US Coalition for Environmentally Responsible Economies (CERES) with a draft of the GRI standards. The full version of the standards were released in 2000. Updates are continuously being made to it with the latest being the 2018 GRI Standards edition. Although it is an independent organization, The Global Reporting Initiative works closely with the United Nations Global Compact as well as the United Nations Environmental Protection Agency. This solidifies its importance and international standing.

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The recent 2018 GRI standards are structured through interrelated modules that can be used independently or together (Courtnell, 2019.) This module-based system is an upgrade from the previous GRI standards because it allows for an ease of adding to, editing, and any other general updating to each module individually. As political, social, and environmental issues change around the world, the switch to the 2018 GRI standards allows for companies to be responsive to change and up to date. Some of the modules outlined are universal, meaning they are applicable to all types of businesses, while other modules are more industry specific.

The GRI 100 Series is an example of universal standards. GRI 101, 102, and 103, titled; Foundation, General Disclosures, and Management Approach respectively, are used to introduce how companies utilize the standards and identify which topic specific categories most affect their business and stakeholders. Additionally, the GRI 100 Series gives general information on a company and how they manage their material topics.

The GRI 200, 300, and 400 Series are all considered topic specific. This means that not all of these standards pertain universally to all companies. They each describe one of three categories: economic, environmental, and social aspects of a business. An example of each is given below to describe how they are broken up.

GRI 207 describes tax reporting standards, and GRI 207-3 specifically describes stakeholder engagement and management of concerns to tax. This standard along with the other standard in the 200 series show a user how to organize and properly report economic factors of doing business.

GRI 302 describes energy standards, and GRI 302-3 specifically describes energy intensity. This standard along with the other standard in the 300 series show a user how to organize and properly report environmental factors of doing business.

GRI 404 describes training and education standards, and GRI 404-2 specifically describes programs for upgrading employee skills and transition assistance programs. This standard along with the other standard in the 400 series show a user how to organize and properly report social factors of doing business.

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RESEARCH QUESTION

The methodologies used by Gartner, Ethisphere and Bloomberg to score companies on their Environmental, Social and Governance performance are unclear. They are all proprietary tools that include elements of subjectivity in the assessment of a company's ESG performance. This research will develop a transparent, quantitative tool to evaluate company ESG performance and then compare the score to the Gartner ESG score and the Bloomberg R-Factor. The following is the primary research question: do the ESG scores we develop match up with the Gartner ESG score and the Bloomberg R-Factor? Traditionally, sustainability has been primarily concerned with the social and environmental impacts of a company. However, there has been a recent new emphasis on company governance, hence our inclusion of governance in our research.

RESEARCH METHODOLOGY

The Gartner Supply Chain Top 25 for 2020 list was used to evaluate the ESG performance of these companies using the GRI Standards as a framework. Data was collected from publicly available company Corporate Social Responsibility (CSR) reports to identify and quantify their ESG efforts.

This research methodology will follow the methodology used by Amy Terracciano, a 2015 Bryant University Graduate who conducted an honors project on sustainable supplier selection criteria. In her project, she used 3 different lists of top-rated sustainable companies where each list used different criteria and evaluation techniques. She identified 3 consumer facing industry sectors and then selected companies within those industries who appeared on at least 2 of the 3 lists. She then used the GRI as a framework to organize sustainable supplier selection criteria and through a frequency count, she was able to determine the most important sustainability criteria when selecting suppliers (Terracciano, 2015).

A scoring system was developed based on Emily Carow's Product Recall Performance Model. Carow, a 2013 Bryant University Graduate, conducted an honors project on product recalls by creating a maturity model indicating "to what degree [a] company is ready to handle the consequences of a product recall." (Carow, 2013.) She scored level of preparation of companies

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on their readiness, responsiveness, and recovery to product recalls by determining whether relevant aspects of the companies are either complete, partial, or none (Carow, 2013). By modifying her model's scoring system and using the ESG data collected from the company sustainability reports, it was possible to develop an ESG score for each company on the Gartner list and then benchmarked that score with the Bloomberg R-Factor. Since the ESG scores researched for a company is based on a quantitative method, this scoring method is not subject to bias and therefore can more accurately reflect a company's ESG efforts. This new ESG score methodology can be used by a company to assess their ESG efforts and to compare themselves to industry competitors and ESG leaders. With this method, consumers, investors, and other stakeholders can easily conduct a similar analysis.

FINDINGS

Gartner's ESG vs CSR

The companies researched in this project stemmed from Gartner's list of the top 25 supply chains for 2020. With a yearly history of identifying competitive supply chains as well as an impressive background in business insights, the companies listed from Gartner were deemed as supply chain leaders to use in this research to compare ESG scores. What makes this year's list unique to previous years is an emphasis on companies that are ahead of their time in terms of defining what the post-pandemic world will be. Additionally, a new importance has been given towards 'purpose-driven' companies. Another major recognizable difference is Gartner's identification of CSR vs ESG. Up until 2019, 15% of Gartner's composite score was based off of a company's corporate social responsibility score. Corporate social responsibility generally references and covers a company's environmental impact as well as its social effect on employees and the surrounding populations; in short, environmental and social factors of doing business. In 2020, Gartner noticeably changed its scoring system. Instead of CSR being 15% of its composite score, Gartner now uses an ESG score as 20% of its composite score. The difference here is that Gartner is now recognizing the importance of a company's governance, which refers to the factors of decision-making from the distribution of rights, responsibilities, and policy making. (What is the G in ESG?, 2020) The addition of governance into a sustainability score from a highly reputable source like Gartner supports the trend that governance is equally important and

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necessary as its counter parts social and environmental. In doing this, Gartner creates the argument that governance should be considered ‘of high priority’ for companies to perform well in.

Gartner’s list

The top 5 firms on Gartner’s 2020 list in order are: Cisco Systems, Colgate-Palmolive, Johnson and Johnson, Schneider Electric, and Nestle. The full list of the top 25 can be seen in the appendix as Exhibit E. Gartner’s list also comes with a ‘masters’ category. This category is reserved for firms who have repeatedly scored high on Gartner’s list each year. Gartner takes these ‘masters’ and put them in their own category to show their continued proficiency in the ranking metrics, as well as allowing newer companies to fall into the main list of 25. The Masters category acts as a ‘Hall of Fame’ for businesses that have a history of being frequently included in the yearly top 25. The 5 companies in the Masters category are, Amazon, Apple, McDonald’s, Proctor and Gamble, and Unilever. In this research, the Masters were also added to the list of companies used, bringing the total companies identified as supply chain leaders to 30. Gartner also recognizes a few honorable mentions. Due to the fact that these companies have also proven, according to Gartner, a strong leadership in the demand-driven principles, they were added to the list of companies planned for research for this project. These companies, General Mills, Danone, and CVS Health, made the total list sum to 33 companies researched. Again, Gartner’s list was used primarily to compile a list of leading supply chain companies to use in this research for our comparison of company ESG scores.

Bloomberg

The next data set was recorded through Bloomberg terminals, a source available to students at Bryant University. Through Bloomberg’s database, a user can be granted access to the raw data from thousands of public companies globally. With its access to a plethora of data, Bloomberg has its own ESG scoring system, titled the R-Factor. Bloomberg gives each company a score on its environmental, social, and governance data and then also offers a composite ‘ESG’ score, or R-Factor, of all three. Each of the 33 companies on the Gartner list were crossed referenced and researched in Bloomberg’s data base and the data was recorded on a simple data table found in

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the appendix as Exhibit F. Alibaba was the only company that Bloomberg did not have ESG information on which led to the omission of Alibaba from this research.

CSR Reports

Finally, each of the remaining 32 companies and their publicly reported Corporate Social Responsibility Reports (CSR) were researched and filtered through. Each company has the freedom to report their data how they choose. The companies researched reported in either 1 of 2 ways; the GRI Index or United Nations Sustainability Development Goals. Due to its importance and significance in the business world, the GRI Index was favored and the CSR reports that lacked this index were omitted from the research. In total, 9 companies were omitted for this reason. These companies are AbbVie, Amazon, Apple, British American Tobacco, L'Oréal, McDonalds, Schneider Electric, Starbucks, and Walmart. Going forward, a total of 23 companies will be researched from an initial 33.

GRI and Matrix Breakdown

In order to organize the data collected, a matrix was created that broke down the GRI Index into each of its particular module segments.

An example of this breakdown goes as follows:

The GRI Series 100 has 3 modules, 101, 102, and 103. Module 101 stands alone with no additional segments while module 102 is made up of 56 segments. Each segment is identified as 102-1, 102-2, and so forth. Module 103 is comprised of 3 segments. This pattern continues throughout the entirety of the GRI Index.

The GRI Index has a total of 37 modules with 148 total segments. 32 segments relate specifically to the Environment. This equates to roughly 22% of the entire Index. 40 segments directly relate to the Social aspects of doing business, equating to roughly 27% of the GRI Index. Lastly, 76 of the segments represent the Governance aspects of doing business, or 51% of the Index.

The matrix created identifies the module number as well as how many segments each module has. For each company, it was possible to identify which segments and the total number of

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segments that were met for each module. At the end, the total number of segments met per company compared to the 32 total available segments that specifically pertain to Environmental, 40 segments pertaining to Social, and 76 segments related to Governance was found. These values, displayed as a percentage of total met over total available, lead to each company being given an individual score for each aspect of E, S, and G. Lastly, a composite score was given to each company that can be considered the 'ESG' score displayed in a percentage of total segments met out of the total 148 segments in the entire index.

System Findings

Exhibit G in the appendix offers a list of the companies researched ranked in order of the composite ESG score found in this research. Here we see Diageo in first place with 95% of the entire GRI Index reported. Diageo ranks higher than second place by almost 10% to Inditex with 89% of the Index reported. As you move down the list, the scores generally decrease until second to last place where Cisco Systems reports 43% of the Index. There is a significant jump to last place where Nike was found reporting only 28% of the GRI Index.

In order to organize the findings from this scoring system, it is logical to break the list down into 3 separate groups, those of which who report 75%+, 51%-74%, and <50% of the GRI Index. With this method of organization, it can be clearer to see what companies are doing, or not doing, in their reporting. Continued below is a breakdown of each group's strength and weakness in terms of their Environmental, Social, or Governance reporting.

In the top group, consisting of companies who report 75% or more of the GRI Index, we find; Diageo, Inditex, Intel, Danone, and Kimberly-Clark. These companies can be considered companies whose reporting systems should be modeled after. These companies report on average 89% of all Governance indices, 76% of all Social indices, and 87% of all Environmental indices.

In the middle group, consisting of companies who report 51%-74% of the GRI Index, we find; General Mills, BMW, Johnson and Johnson, Lenovo, Unilever, Coca-Cola, CVS Health, Nestle, H&M, 3M, Hewlett-Packard (HP) Inc., and Pepsi Co. Similar to the top group, Governance is

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the category where companies shine. Companies in this group report on average 72% of the Governance indices while only reporting 55% of Environmental and 42% of Social indices.

In the bottom group, consisting of companies who report 50% or less of the GRI Index, we find, Biogen, P&G, Colgate-Palmolive, Reckitt Benckiser, Cisco Systems, and Nike. Again, here we see Governance having a strong roll in a company's score. On average, companies in this group report 50% of all Governance segments while only reporting 48% of Environmental and 32% of Social indices.

That data presented above shows that Governance indices have a strong pull in determining whether or not a company is 'top tier.' While each group's strongest reported indices were those that reference Governance, the few companies in the 75%+ group reported a larger percentage, proving the theory that Governance indices are important.

GRI Indices Least Met

With the data collected, the percentage of companies who report certain indices segments can be determined. This type of analysis can give an understanding to which GRI Indices are being skipped, ignored, or otherwise looked over. This will give a sneak peek into what areas of doing business should be given more attention.

Exhibit H in the appendix shows a list of all 148 segments in the order of least percentage met. Here, there is only one category that zero companies in this research reported, titled: 202-1, Ratios of Standard Entry Level Wage by Gender Compared to Local Minimum Wage. The list has a general decline until last place where the last 14 places are all met by 100% of all the companies researched in this study. Similar to the other data set, the data here can be better organized/displayed broken up into groups. Exhibit I in the appendix showed a breakdown of the groups and how they can easily be defined. Group 1 represents the segments are met by at most 20% of the researched companies. Which means that this category shows the least met segments in the GRI Index. Group 2 represents the segments that are met by at least 21% and at most 40% of companies. This category shows the GRI indices that are minimally met. Group 3 represents the segments that are met by at least 41% and at most 60% of companies. This group shows GRI indices that are met by just under and just over 50% of companies researched. This

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is the pivotal group where some segments here are ones that are met by some majority of companies in this research. Group 4 represents the segments that are met by at least 61% and at most 80% of companies. This group displays segments that are almost all met by the companies listed. Lastly, Group 5 represents segments that are met by 81% or more companies. This group displays segments that are most met by the companies listed.

In Group 1, 11 segments exist with a majority (6) of them being related to Governance. All 6 of these segments fall into GRI Modules 202 and 207, Market Presence and Tax. Arguably, the information required to fully report information for GRI 202 can be tough to get. Firms would need to know the exact demographic of their local market to properly report ‘Ratios of Standard Entry Level Wage by Gender Compared to Local Minimum Wage’ or ‘Proportion of Senior Management Hired from the Local Community.’ Regarding GRI Module 207, firms would also need to publicly release a lot of their tax information including ‘Tax Governance, Control, and Risk management,’ and their ‘Approach to Tax.’ This is typically the type of information that firms would want to keep from competitors in their markets.

In Group 2, 24 segments exist with the highest amount (10) being related to the Social aspects of business. These 10 segments fall into GRI Modules 401, 402, 403, 413, 417, and 419: Employment, Labor Management Relations, Occupational Health and Safety, Local Communities, Market and Labeling, and Socioeconomic Compliance. Most of these modules relate to the local communities that firms do business in. For example, to proficiently report all of GRI Module 413, a firm would need to explain whether or not they have a form of local community engagement and development programs. Firms without such programs omit this module from their reports as it gives a negative connotation of their business to the reader of the report.

In Group 3, 30 segments exist with the highest amount (13) also being related to the Social aspects of doing business. The 13 segments mentioned fall into GRI Modules 401, 403, 404, 405, 406, 407, 412, 416, 417, and 418: Employment, Occupational Health and Safety, Training and Education, Diversity and Equal Opportunity, Non-Discrimination, Freedom of Association and Collective Bargaining, Human Rights Assessment, Customer Health and Safety, Marketing

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and Labeling, and Customer Privacy. The modules in this group trend more towards the reporting of human rights and law abiding.

In Group 4, 39 segments exist with the majority of segments (20) being related to Governance. The 20 segments fall into GRI Modules 102, 103, 201, and 205: General Disclosures, Management Approach, Economic Performance, and Anti-Corruption. The modules found in this group tend to relate more towards business transparency. This would mean being able to publish things like full supply chains, profits, and revenues.

Lastly, in Group 5, 44 segments exist with the majority of segments (35) also being related to Governance. The 44 segments fall into GRI Modules 102 and 103: General Disclosures and Management Approach. Again, relating to business transparency, in this category, these modules can be considered ones that are most reported.

The Groups created for this data set show a progression of least to most met GRI segments for the companies researched. The indices and modules mentioned in the first group are least met while those mentioned in the last group are met the most. With this understanding, it can be concluded that the modules towards the beginning of the list are either hard to gather information on or difficult to actually execute, forcing firms to omit them from their reporting. The inverse can be said for those modules mentioned towards the end of the list. There are modules that are easy to complete and gather information on. Interestingly, in the first and last group, a majority of the modules mentioned relate to the same aspect, Governance.

Comparison to Bloomberg

Also offered in the Appendix, Exhibit F, is a chart of Bloomberg's scores for the companies researched. In this exhibit, the companies are ranked in order of highest composite ESG score to lowest. Also shown with each company is the score Bloomberg gave each company for its Environmental, Social, and Governance factors of business. Here we see Intel in first place with a composite score of 65.70. As you move down the list, the composite score for each company generally decreases until last place where Biogen scores a 45.04. With this complete data set, it is possible to compare Bloomberg's data to the data found in this study.

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Offered in Appendix J is a chart that describes the ranking order of the GRI system and Bloomberg as well as the absolute change in number of places. Some differences quickly jump out. There are 8 companies on the lists whose places only change by up to 3 places. They are highlighted in green on the chart. Reckitt Benckiser scores the same on both lists, Kimberly Clark, CVS Health, and P&G have an absolute place change of 1, Intel, Unilever, and Pepsi Co have an absolute change of 2 places, and finally, Lenovo has an absolute change of 3 places. An absolute change of up to 3 places can be considered an area where the two different scoring systems agree. Anything 4 or greater can be considered where the score system disagrees. For the entire list, on average, each company moves just over 6 places. The average includes Reckitt Benckiser having a net change of zero places, placing in 21st place on both lists, as well as Nike having a net change of 15 places. The exact average change for the list is 6.434 places.

Nike holds the last place spot on the GRI Index list with a staggering 28% of the Index reported. This means that Nike refuses to publish 72% of the remaining Index. This is a surprising statistic when compared to Bloomberg's list where it falls 8th. Based off of the findings, it can be argued that Nike does not even belong in a top 100 list never mind a top 25 list like Gartner's, who puts it at number 16. This is hard pressing evidence that a transparent and fair scoring system is needed.

Oddities

Nike has historically been labeled as an environmental hazard as well as having poor working conditions for its employees and a poor living environment for its surrounding populations. Articles and publications report that Nike factories in countries such as Indonesia or Thailand “are cramped with workers and pose fire dangers. Workers are also restricted access to the toilet and drinking water during the day” (New Idea, 2021). These reasons alone support the above statement that Nike should not be allowed on a top ranked list. Other notable companies with negative attributes include H&M and its fast fashion industry as well as British American Tobacco and its inherent negative effects its products have towards its users. (British American Tobacco is on Gartner's list but does not report using the GRI Index which means it was omitted from further research.)

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Although H&M is not bottom of the GRI ranked list like Nike is, as it falls 16th, that does not mean its governance score was of good standing. H&M only reported 59% of the GRI Index segments that make up a governance score.

Companies that do business with a large or damaging footprint tend to have corporate policies that counter this from an alternative perspective which lands them top ranking positions on lists like Gartner's. This can be known as a 'net positive' or 'net zero' footprint.

Need for Transparency

Some of these sources, like the Ethisphere Institute (and Gartner going forwards as of October 2020) only list companies who have paid to be audited by said sources. An unfair advantage is inherently created that favors larger businesses who have the capacity to pay more than some smaller companies that exist.

Discrepancies, lack of transparency, and unclear scoring systems lead to the creation of the ranking lists that publicly exists. The need for a simple, transparent, and overarching scoring system is necessary to have a better, more accurate understanding of companies and how they conduct business.

Inherently positive companies with strong supply chains that have shown an effort in improving their environmental, social, and governance aspects should be the sole companies considered for a list of the top supply chains in the world. The ranking system should be fair and transparent. Companies should be held to the same standards rather than being allowed to omit categories as they deem fit.

Room for Further Research

This research introduced a list of indices from the GRI framework that are being omitted or skipped in the CSR reports of companies. This paper only scratches the surface of this topic and a more in-depth analysis of this area is needed in supply chain literature. Understanding why a majority of companies leave out specific segments of the GRI Index can be considered an opportunity for future research.

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Interestingly, this research has brought to light other new channels one can take to further the academic understanding of the topic. For starters, this research solely focused on the governance aspect of a business. A comparison can be done regarding the environmental and or the social factors of businesses for an interesting alternate viewpoint on the same list of companies. Additionally, the only source compared in this research was Bloomberg. Further comparison can be done with other sources to identify differences, similarities, strengths, and weaknesses of a source. Furthermore, alternative companies can be researched to have a better breadth of knowledge in the area.

POTENTIAL RESEARCH ISSUES AND ETHICAL CONSIDERATIONS

One potential research issue faced would have been the availability of CSR reports from companies. Because this research involved looking into each company on the top 25 list, as well as a several others mentioned in the Gartner report, it was imperative that each company's responsibility reports were found. If for whatever reason this is not possible, a substitution of a similar company in size was not appropriate, meaning that company needed to be omitted from the research.

CONCLUSION

This research bridged a gap in supply chain literature. This paper explored the question, Do the ESG scores developed match up with the Gartner ESG score and the Bloomberg R-Factor? Through a literature analysis, it was concluded that there is a lot of discrepancy in determining the top-rated supply chain firms. For companies who make this decision, there is a lot of financial gain. Firms need to pay a lot of money to even be considered, which leads to a conflict of interest. Because of this discrepancy, a transparent, quantitative tool was proven to be needed to get an unbiased opinion or viewpoint on such firms.

Additionally, this research also shed light on the aspects of the GRI Index that are least reported. This information tells which indices are being skipped, overlooked, or omitted from regular reporting. These findings can indicate that a greater emphasis is needed in these areas.

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Using the Global Reporting Initiative standards, a reliable, unbiased way to rate companies based on their environmental, social, and governance aspects of business was created. Using the GRI framework allows for firms to minimize potential greenwashing. Examples in this paper ranging from cigarette to fast fashion companies are shining examples of where and how a framework such as this can be implemented. To make this information more transparent and readily available, an easy-to-use system like the one created in this paper is needed.

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APPENDIX

Exhibit A – Portion of Target’s Corporate Social Responsibility Report

GRI Standard	Disclosure Title	Disclosure Number	Target’s Response
GRI 406: Non-Discrimination	Management Approach	103-1 103-2 103-3	We value and support each other and work to ensure a diverse, welcoming, and inclusive culture. At Target, we know every team member has something to contribute. When we are inclusive and do our best to create opportunities for everyone, we all benefit from the richness of different perspectives and enhanced points of view across our team. Discrimination based on protected status is illegal, and it goes against everything Target stands for. That means we do not discriminate against team members, applicants of business partners based on characteristics like race, national origin, or ancestry; color; sex; pregnancy status; gender; religion or religious creed; age; medical condition or disability; sexual orientation; gender identity or expression; marital status; citizenship status; military or veteran status; genetic information or characteristics (or those of a family member); or any other characteristics protected by applicable laws.
	Incidents of discrimination and corrective actions taken	406-1	

Exhibit B – How Gartner Scores Their Composite Score

Category	2019 Measure	Weighting	2020 Measure	Weighting
Business Data (50%)	Return-on-assets (ROA)	20%	Return-on-physical-assets (ROPA)	20%
	Inventory Turns	10%	Inventory turns	5%
	Revenue Growth	10%	Revenue Growth	10%
	CSR	10%	Environmental, Social, Governance (ESG)	15%
Community Opinion (50%)	Analyst Vote	25%	Analyst Vote	25%
	Peer Vote	25%	Peer Vote	25%

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Exhibit C – How Ethisphere Institute Measures their ESG Score

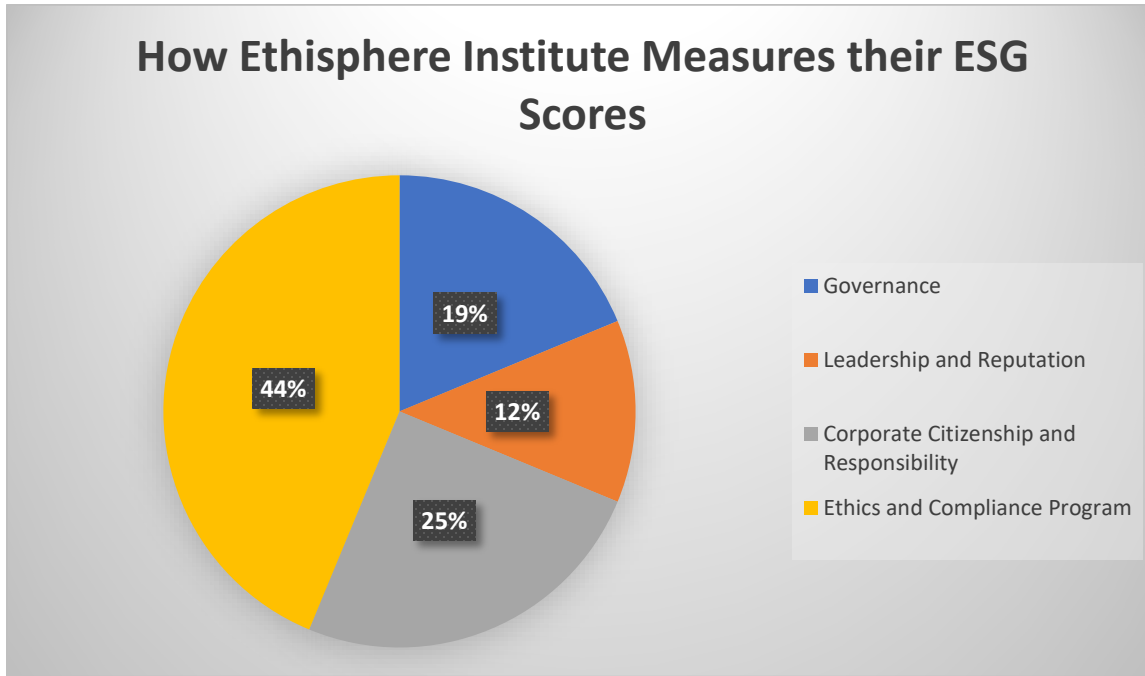


Exhibit D – Example of Greenwashing



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Exhibit E – The Gartner Supply Chain Top 25 for 2020 List

Rank	Company	Peer Opinion (151 voters) (25%)	Gartner Opinion (44 voters) (25%)	3-Year weighted ROPA (20%)	Inventory Turns (5%)	3-Year Weighted Revenue Growth (10%)	ESG Component Score (15%)	Composite Score
1	Cisco Systems	470	574	300.7%	12.5	2.9%	10.00	6.25
2	Colgate-Palmolive	1113	532	68.8%	4.7	1.0%	10.00	5.37
3	Johnson & Johnson	885	454	77.6%	3.0	3.6%	8.00	4.65
4	Schneider Electric	567	453	63.0%	5.4	4.2%	10.00	4.48
5	Nestle	1084	350	40.0%	4.8	1.2%	10.00	4.44
6	Pepsi Co	857	385	47.9%	8.2	2.7%	10.00	4.42
7	Alibaba	991	316	106.7%	23.9	54.0%	0.00	4.39
8	Intel	583	488	37.4%	3.5	5.8%	8.00	4.12
9	Inditex	737	351	34.7%	4.6	6.8%	10.00	4.11
10	L'Oréal	677	252	71.1%	2.8	7.4%	10.00	4.01
11	Walmart	1333	324	13.2%	8.5	2.4%	7.00	4.00
12	HP Inc	296	389	51.1%	8.5	5.5%	10.00	3.87
13	Coca-Cola	1195	207	75.4%	4.4	0.0%	6.00	3.74
14	Diageo	403	280	41.4%	0.9	6.2%	10.00	3.49
15	Lenovo	397	307	16.9%	11.2	7.0%	10.00	3.44
16	Nike	768	265	47.2%	4.0	6.7%	6.00	3.35
17	AbbVie	128	30	262.4%	4.1	7.6%	5.00	3.20
18	BMW	575	182	24.8%	3.9	4.2%	10.00	3.17
19	Starbucks	799	202	52.6%	13.0	7.7%	4.00	2.99
20	H&M	412	161	22.4%	2.8	7.7%	10.00	2.95
21	British American Tobacco	154	56	85.6%	0.7	18.1%	9.00	2.90
22	3M	624	207	54.1%	3.39	1.1%	6.00	2.90
23	Reckitt Benckiser	265	14	99.0%	3.8	8.2%	9.00	2.79
24	Biogen	79	27	152.2%	2.5	7.8%	7.00	2.78
25	Kimberly-Clark	534	80	34.6%	6.6	0.2%	10.00	2.76

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Exhibit F – Data Collected from Bloomberg

Ordered by Bloomberg's Values					
Company	Ticker	Environmental	Social	Governance	ESG
Alibaba	-	-	-	-	-
Intel	INTC	62.79	57.89	80.36	65.70
BMW	BMW	64.34	56.14	69.64	63.64
Johnson and Johnson	JNJ	62.79	57.89	66.07	62.40
L'Oréal	OR	58.91	61.4	69.64	61.98
Kimberly-Clark	KMB	63.57	49.12	71.43	61.98
Nestle	NESN	58.91	49.12	78.75	61.16
Hewlett-Packard (HP) Inc.	HPQ	59.69	52.63	73.21	61.16
3M	MMM	55.81	57.89	71.43	59.92
Nike	NKE	64.58	38.60	71.43	59.33
Unilever	UNA	53.49	61.4	69.64	59.09
Colgate-Palmolive	CL	51.94	68.42	66.07	59.09
Schneider Electric	SU	51.94	64.91	69.64	59.09
Diageo	DGE	51.94	64.91	64.29	57.85
Lenovo	LVN	60.47	43.86	62.50	57.02
CVS Health	CVS	47.29	54.39	76.79	55.79
Cisco Systems	CSCO	52.71	49.12	66.07	54.96
Apple	AAPL	65.63	29.82	60.71	54.55
Danone	BN	48.84	47.37	69.64	53.31
Inditex	ITX	52.08	50.88	57.14	53.11
General Mills	GIS	42.64	49.12	76.79	52.07
Coca-Cola	KO	44.19	54.39	66.07	51.65
PepsiCo	PEP	39.53	49.12	80.36	51.24
P&G	PG	52.71	33.33	60.71	50.00
AbbVie	ABBV	41.09	52.63	66.07	49.59
Reckitt Benckiser	RB	45.74	43.86	64.29	49.59
H&M	HMB	43.85	33.33	69.64	47.85
Biogen	BIIB	41.09	33.33	66.07	45.04
British American Tobacco	BATS	27.13	49.12	62.50	40.50
Walmart	WMT	20.83	28.07	69.64	35.89
Starbucks	SBUX	21.88	28.07	66.07	35.41
Amazon	AMZN	25.58	28.07	57.14	33.47
McDonalds	MCD	21.88	33.33	51.79	33.01

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Exhibit G – Data Collected Based off of the GRI Index

<u>Rank</u>	<u>Companies</u>	<u>Environmental</u>	<u>Social</u>	<u>Governance</u>	<u>Composite ESG</u>
<u>1</u>	Diageo	94%	90%	99%	95%
<u>2</u>	Inditex	94%	80%	91%	89%
<u>3</u>	Intel	94%	83%	86%	86%
<u>4</u>	Danone	81%	65%	88%	80%
<u>5</u>	Kimberly-Clark	72%	65%	82%	75%
<u>6</u>	General Mills	78%	48%	82%	72%
<u>7</u>	BMW	50%	65%	83%	71%
<u>8</u>	Johnson and Johnson	69%	55%	78%	70%
<u>9</u>	Lenovo	66%	38%	78%	64%
<u>10</u>	Coca-Cola	47%	30%	83%	61%
<u>11</u>	Unilever	69%	60%	58%	61%
<u>12</u>	CVS Health	38%	30%	82%	58%
<u>13</u>	Nestle	44%	23%	79%	56%
<u>14</u>	H&M	50%	48%	59%	54%
<u>15</u>	3M	53%	50%	54%	53%
<u>16</u>	Hewlett-Packard (HP) Inc.	56%	23%	66%	52%
<u>17</u>	Pepsi Co	38%	30%	67%	51%
<u>18</u>	Biogen	38%	43%	59%	50%
<u>19</u>	P&G	50%	18%	64%	49%
<u>20</u>	Colgate-Palmolive	63%	48%	45%	49%
<u>21</u>	Reckitt Benckiser	56%	405	47%	47%
<u>22</u>	Cisco Systems	50%	28%	49%	43%
<u>23</u>	Nike	31%	13%	34%	28%

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Exhibit H – GRI Indices Least Reported

Criteria Least Met			
<u>Indices Title</u>	<u>Rank</u>	<u>Indices Number</u>	<u>Percentage of Companies who meet these indices</u>
Ratios of Standard Entry Level Wage by Gender Compared to Local Minimum Wage	1	<u>202-1</u>	<u>0%</u>
Incidents of Violations Involving Rights of Indigenous Peoples	2	<u>411-1</u>	<u>4%</u>
Tax Governance, Control, and Risk Management	3	<u>207-2</u>	<u>9%</u>
Stakeholder Engagement and Management of Concerns Related to Tax	4	<u>207-3</u>	<u>9%</u>
Proportion of Senior Management Hired from the Local Community	5	<u>202-2</u>	<u>13%</u>
Approach to Tax	6	<u>207-1</u>	<u>13%</u>
Country-By-Country Reporting	7	<u>207-4</u>	<u>13%</u>
IUCN Red Lost Species and National Conservation List Species with Habitats in Areas Affected by Operations	8	<u>304-4</u>	<u>13%</u>
Security Personnel trained in Human Rights Policies or Procedures	9	<u>410-1</u>	<u>13%</u>
Workers Covered by an Occupational Health and Safety Management System	10	<u>403-8</u>	<u>17%</u>
Occupational Health and Safety Management System	11	403-10	17%
Financial Assistance Received from Government	12	201-4	22%

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Operations Sites Owned, Leased, Managed in, or Adjacent to, Protected Areas and Areas of High Biodiversity Value Outside Protected Areas	13	304-1	22%
Waste Diverted from Disposal	14	306-4	22%
Worker Training on Occupational Health and Safety	15	403-5	22%
Prevention and Mitigation of Occupational Health and Safety Impacts Directly Linked by Business Relationships	16	403-7	22%
Operations with Significant Actual and Potential Negative Impacts on Local Communities	17	413-2	22%
Percentage Increase in Annual Total Compensation Ratio	18	102-39	26%
Water Discharge	19	303-4	26%
Water Consumption	20	303-5	26%
Waste Directed to Disposal	21	306-5	26%
Promotion of Worker Health	22	403-6	26%
Incidents of Non-Compliance Concerning Marketing Communications	23	417-3	26%
Non-Compliance with laws and Regulations in the Social and Economic Area	24	419-1	26%
Habitats Protected or Restored	25	304-3	30%
Parental Leave	26	401-3	30%
Minimum Notice Period Regarding Operational Changes	27	402-1	30%
Work-Related ill Health	28	403-9	30%
Annual Total Compensation Ratio	29	102-38	35%
Proportion of Spending on Local Suppliers	30	204-1	35%
Incidents of Non-Compliance Concerning Product and Service Information and Labeling	31	417-2	35%
Nature and Total Number of Critical Concerns	32	102-34	39%

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Infrastructure investments and Services Supported	33	203-1	39%
Confirmed Incidents of Corruption and Actions Taken	34	205-3	39%
Waste Generation and Significant Waste-Related Impacts	35	306-1	39%
Defined Benefit Plan Obligations and Other Retirement plans	36	201-3	43%
Legal Actions for Anti-Competitive Behavior, Anti-Trust, and Monopoly Practices	37	206-1	43%
Significant Impacts of Activities, Products, and Services on Biodiversity	38	304-2	43%
Waste Generated	39	306-3	43%
Ratio of Basic Salary and Remuneration of Women to Men	40	405-2	43%
Operations and Suppliers in which the Right to Freedom of Association and Collective Bargaining may be at Risk	41	407-1	43%
Significant Investment Agreements and Contracts that Include Human Rights Clauses or that Underwent Human Rights Screening	42	412-3	43%
Worker Participation, Consultation, and Communication on Occupational Health and Safety	43	403-4	48%
Employee Training on Human Rights Policies or Procedures	44	412-2	48%
Incidents of Non-Compliance Concerning the Health and Safety Impacts of Product and Services	45	416-2	48%
Collective Knowledge of Highest Governance Body	46	102-27	52%
Evaluating the Highest Governance Body's Performance	47	102-28	52%
Direct Economic Value Generated and Distributed	48	201-1	52%
Reclaimed Products and their Packaging Materials	49	301-3	52%

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Reduction in Energy Requirements of Products and Services	50	302-5	52%
Nitrogen Oxides (NOx), Sulfur Oxides (Sox), and Other Significant Air Emissions	51	305-7	52%
Benefits Provided to Full-Time Employees that are not Provided to Temporary or Part-Time Employees	52	401-2	52%
Occupational Health and Safety Management System	53	403-1	52%
Occupational Health Services	54	403-3	52%
Incidents of Discrimination and Corrective Actions Taken	55	406-1	52%
Average Hours of Training Per Year Per Employee	56	404-1	53%
Delegating Authority	57	102-19	57%
Significant Indirect Economic Impacts	58	203-2	57%
Operations assessed for Risks Related to Corruption	59	205-1	57%
Materials Used by Weight or Volume	60	301-1	57%
Energy Consumption Outside of the Organization	61	302-2	57%
Management of Water Discharge-Related Impacts	62	303-2	57%
New Employee Hires and Employee Turnover	63	401-1	57%
Requirements for Product and Service Information and Labeling	64	417-1	57%
Substantiated Complaints Concerning Breaches of Customer Privacy and Losses of Customer Data	65	418-1	57%
Role of Highest Governance Body in Setting Purpose, Values, and Strategy	66	102-26	61%
Process for Determining Remuneration	67	102-36	61%
Stakeholders' Involvement in Remuneration	68	102-37	61%
Financial Implications and other Risks and Opportunities due to Climate Change	69	201-2	61%

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Communication and Training About Anti-Corruption Policies	70	205-2	61%
Programs for Upgrading Employee Skills and Transition Assistance Programs	71	404-2	61%
Percentage of Employees Receiving Regular Performance and Career Development Reviews	72	404-3	61%
Operations and Suppliers at Significant Risk for Incidents of Forced or Compulsory Labor	73	409-1	61%
Operations that have been Subject to Human Rights Reviews or Impact Assessments	74	412-1	61%
Operations with Local Community Engagement, Impact Assessments, and Development Programs	75	413-1	61%
Conflicts of Interest	76	102-25	65%
Review of Economic, Environmental, and Social Topics	77	102-31	65%
Highest Governance Body's Role in Sustainability Reporting	78	102-32	65%
Water Withdrawal	79	303-3	65%
Non-Compliance with Environmental Laws and Regulations	80	307-1	65%
Negative Environmental Impacts in the Supply Chain and Actions Taken	81	308-2	65%
Operations and Suppliers at Significant Risk for Incidents of Child Labor	82	408-1	65%
Executive Level Responsibility for Economic, Environmental, and Social Topics	83	102-20	70%
Consulting Stakeholders on Economic, Environmental, and Social Topics	84	102-21	70%
Identifying and Managing Economic, Environmental, and Social Impacts	85	102-29	70%
Communicating Critical Concerns	86	102-33	70%
Remuneration Policies	87	102-35	70%

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Emissions of Ozone-Depleting Substances (ODS)	88	305-6	70%
Management of Significant Waste-Related Impacts	89	306-2	70%
Political Contributions	90	415-1	70%
Assessment of the Health and Safety Impacts of Product and Service Categories	91	416-1	70%
Recycled Input Materials Used	92	301-2	72%
Composition of the Highest Governance Body and its Committees	93	102-22	74%
Chair of the Highest Governance Body	94	102-23	74%
Nominating and Selecting the Highest Governance Body	95	102-24	74%
Effectiveness of Risk Management Processes	96	102-30	74%
New Suppliers that were Screened using Environmental Criteria	97	308-1	74%
Negative Social Impacts in the Supply Chain and Actions Taken	98	414-2	74%
Name of the Organization	99	102-15	78%
Explanation of the Material Topic and its Boundary	100	103-1	78%
The Management Approach and its Components	101	103-2	78%
Energy Intensity	102	302-3	78%
Hazard Identification, Risk Assessment, and Incident Investigation	103	403-2	78%
New Suppliers that were Screened Using Social Criteria	104	414-1	78%
Name of the Organization	105	102-17	86%
Collective Bargaining Agreements	106	102-41	87%
Key Topics and Concerns Raised	107	102-44	87%
Evaluation of the Management Approach	108	103-3	87%
Energy Consumption within the Organization	109	302-1	87%
Reduction of Energy Consumption	110	302-4	87%

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Interactions with Water as a Shared Resource	111	303-1	87%
Diversity of Governance Bodies and Employees	112	405-1	87%
External Assurance	113	102-8	91%
Name of the Organization	114	102-10	91%
Name of the Organization	115	102-12	91%
Name of the Organization	116	102-13	91%
Restatements of Information	117	102-48	91%
Reduction in GHG Emissions	118	305-5	91%
Name of the Organization	119	102-1	96%
Delegating Authority	120	102-2	96%
Identifying and Managing Economic, Environmental, and Social Impacts	121	102-3	96%
Percentage Increase in Annual Total Compensation Ratio	122	102-4	96%
Changes in Reporting	123	102-5	96%
External Assurance	124	102-6	96%
External Assurance	125	102-7	96%
External Assurance	126	102-9	96%
Name of the Organization	127	102-11	96%
Governance Structure	128	102-18	96%
List of Stakeholder Groups	129	102-40	96%
Entities Included in the Consolidated Financial Statements	130	102-45	96%
Claims of Reporting in Accordance with the GRI Standards	131	102-54	96%
External Assurance	132	102-56	96%
Direct (Scope 1) GHG Emissions	133	305-1	96%
GHG Emissions Intensity	134	305-4	96%
Name of the Organization	135	102-14	100%
Name of the Organization	136	102-16	100%
Identifying and Selecting Stakeholders	137	102-42	100%
Approach to Stakeholder Engagement	138	102-43	100%
Defining Report Content and Topic Boundaries	139	102-46	100%
List of Material Topics	140	102-47	100%
Changes in Reporting	141	102-49	100%
Reporting Period	142	102-50	100%

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Date of Most Recent Report	143	102-51	100%
Reporting Cycle	144	102-52	100%
Contact Point for Questions Regarding the Report	145	102-53	100%
GRI Content Index	146	102-55	100%
Energy Indirect (Scope 2) GHG Emissions	147	305-2	100%
Other Indirect (Scope 3) GHG Emissions	148	305-3	100%

Exhibit I – Group Break Down for the list of GRI Indices Least Reported

Group 1	Group 2	Group 3	Group 4	Group 5
0-20%	21-40%	41-60%	61-80%	81-100%
Lest Met GRI Indices	Minimally Met GRI Indices	Pivotal Group of GRI Indices	Almost all Met GRI Indices	Most Met GRI Indices

Exhibit J – GRI vs Bloomberg Ranking (Absolute Change)

Company	GRI Rank	Bloomberg Rank	Absolute Change
Diageo	1	11	10
Inditex	2	16	14
Intel	3	1	2
Danone	4	15	11
Kimberly-Clark	5	4	1
General Mills	6	17	11
BMW	7	2	5
Johnson and Johnson	8	3	5
Lenovo	9	12	3
Coca-Cola	10	18	8
Unilever	11	9	2
CVS Health	12	13	1
Nestle	13	5	8
H&M	14	22	8
3M	15	7	8
Hewlett-Packard (HP) Inc.	16	6	10
Pepsi Co	17	19	2
Biogen	18	23	5
P&G	19	20	1
Colgate-Palmolive	20	10	10
Reckitt Benckiser	21	21	0
Cisco Systems	22	14	8
Nike	23	8	15

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REFERENCES

Bloomberg.com. (n.d.). Retrieved July 26, 2020, from <https://www.bloomberg.com/>

Campaign for Tobacco-Free Kids, 24 June 2020, www.tobaccofreekids.org/.

Carow, Emily. "Understanding and Mitigating the Negative Impacts of Product Recalls in The Global Supply Chain." *Bryant University Honors Program*, 2013, pp. 1–57.

Courtneil, J. (2019, October 15). GRI Standards for Sustainability Reporting: What They Are and Why They Matter: Process Street: Checklist, Workflow and SOP Software. Retrieved July 07, 2020, from <https://www.process.st/gri-standards/>

"Earth Day 2020: Companies Accused of Greenwashing." *Truth in Advertising*, 22 Apr. 2020, www.truthinadvertising.org/six-companies-accused-greenwashing/.

Ethisphere Institute. (2020, July 09). Retrieved July 26, 2020, from <https://ethisphere.com/>

Hargrave, Marshall. "Inventory Turnover." *Investopedia*, Investopedia, 28 Apr. 2020, www.investopedia.com/terms/i/inventoryturnover.asp.

Gartner_Inc. "Fueling the Future of Business." *Gartner*, www.gartner.com/en.

"Global Reporting Initiative." *The Global Reporting Initiative (GRI) Is a Non-Profit Organization That Promotes Economic Sustainability. It Produces One of the World's Most Prevalent Standards for Sustainability Reporting - Also Known as Ecological Footprint Reporting, Environmental So*, www.globalreporting.org/Pages/default.aspx.

Kenton, Will. "What You Should Know About Greenwashing." *Investopedia*, Investopedia, 20 Apr. 2020, www.investopedia.com/terms/g/greenwashing.asp.

Kumar, A., & Das, N. (2018). Sustainability Reporting Practices in Emerging

Environmental, Social and Governance Performance of Top-Rated Supply Chain Companies

Honors Thesis for Noah Tellier

Economies: A Cross-Country Study of BRICS Nations. *Problemy Ekorozwoju*, 13(2), 17–25

Marketing Perspectives, 1 Jan. 2016, haccmarketing.blogspot.com/2016/09/the-2016-supply-chain-top-25-lessons.html.

Motley, F. “How to Calculate Revenue Growth for 3 Years.” *The Motley Fool*, The Motley Fool, 22 Feb. 2016, www.fool.com/knowledge-center/how-to-calculate-revenue-growth-for-3-years.aspx.

McCarthy, Allison. “Are Our Clothes Doomed for the Landfill?” *Remake*, 2 Apr. 2020, remake.world/stories/news/are-our-clothes-doomed-for-the-landfill/.

New Idea. “Nike Sweatshops: The Truth About the Nike Factory Scandal.” *New Idea*, 11 Dec. 2019, www.newidea.com.au/nike-sweatshops-the-truth-about-the-nike-factory-scandal.

“Return on Assets - ROA Formula, Calculation, and Examples.” *Corporate Finance Institute*, 19 May 2020, corporatefinanceinstitute.com/resources/knowledge/finance/return-on-assets-roa-formula/.

Schwartz, A. J. (2016). A closer look at the 'most ethical' company rankings. Retrieved July 26, 2020, from https://www.bizjournals.com/philadelphia/morning_roundup/2016/05/widener-schwartz-ethic-rankings-pepsi-ups-intel.html

Target. *A Bullseye View. Behind the Scenes at Target*. 2020, corporate.target.com/corporate-responsibility/goals-reporting/corporate-responsibility-reports.

Terracciano, Amy. “Supplier Selection Criteria for Sustainable Supply Chains.” *Bryant University Honors Program*, 2015, pp. 1–71.

Environmental, Social and Governance Performance of Top-Rated Supply Chain Companies
Honors Thesis for Noah Tellier

“What Is the ‘G’ in ESG?” *What Is the "G" in ESG?* | S&P Global, 2020,
www.spglobal.com/en/research-insights/articles/what-is-the-g-in-esg.